CENSUS OF INDIA, 1901.

VOLUME III.

THE ANDAMAN AND NICOBAR ISLANDS.

REPORT ON THE CENSUS.

BY

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SUPERINTENDENT OF THE PENAL SETTLEMENT AT PORT BLAIR.



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VOLUME III.

THE ANDAMAN AND NICOBAR ISLANDS.

CALCUTTA:
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PREFACE.

First Census Report on the Andamans and Nicobars—Form of Report—The Three Communities in the Islands—Accuracy of the Returns—Printing of Vernacular Words—Bibliography—I of the Andamans—II of Barren Islands and Narcondam—III of the Nicobar Islands.

First Census Report on Andamans and Nicobars.—This is the first attempt to make a "Census Report" on the Andaman and Nicobar Islands. In 1881 and 1891 a Census was taken on the lines of the General Census of India, but only of the Penal Settlement at Port Blair. And so it happens that the General Indian Census of 1901 is also the first occasion on which any formal attempt has been made, under the orders of the Government of India, to take a Census of the Andamanese and Nicobarese outside the Penal Settlement.

Form of Report.—In making this Report under conditions entirely at variance with those obtaining in India, I have been able, through the courtesy of Mr. H. H. Risley while Census Commissioner for India, to follow a line of my own on an agreement between us as to the general scheme I should adopt. This general scheme is shown in the contents bill of the Report. I think it is also right to say that circumstances have compelled me to compile it against time and in addition to the ordinary duties of my office.

The Three Communities in the Islands.—There are in the Andaman and Nicobar Islands three separate communities having no points of contact as regards the Census with each other and living under conditions belonging to entirely different stages of civilization. The Andamanese consist of tribes of naked savages only recently brought into general contact with civilised races. The Nicobarese are an old far-eastern semi-civilised people with an ancient trade. The Penal Settlement shows all the usual signs of a civilised community of the most advanced type. Each in fact presents separate phenomena with an interest of their own to the student and should be studied separately, and it is for this reason that this Report has been divided into three different parts:—I the Andamanese, II the Nicobarese, III the Penal Settlement of Port Blair. For this reason also it is intended that each part shall be complete in itself from the point of view of a Census Report.

Accuracy of Returns.—While it gives me great pleasure to testify to the scrupulous care and conscientiousness with which Mr. E. H. Man, C.I.E., Major A. R. S. Anderson, I.M.S., and Mr. H. H. D'Oyly carried out the difficult operation of enumerating the Andamanese and Nicobarese, it was impossible for them in the conditions to keep their results clear of the charge of inaccuracy, and circumstances also made it obligatory to conjecture the numbers of the Önge and Jarawa tribes among the Andamanese and of the Shom Pen among the Nicobarese. In this Report I have endeavoured to state fully the reasons for the conjectures and for estimating the amount of error in enumeration: also to point out how a greater approach towards accuracy may possibly be attained at the next opportunity and to what points special attention may then be profitably given.

Printing of Vernacular Words.—In printing this Report diacritical marks on Andamanese and Nicobarese words and names have been everywhere avoided

and never used except where necessary to the meaning. Languages, entirely unknown to any but a very few local experts, present puzzles enough to the general reader without that increase of them which results from too strict a purism, and those desirous of a closer knowledge of pronunciation and form will find the romanisation employed fully explained in the sections on Language.

Bibliography.—A great deal has been written about the Andamans and Nicobars in the last twenty-five years, but the mass of information thus collected is scattered about in scarce Government Reports, in books chiefly rare and published in small editions, and in pamphlets and scientific journals not easy of access. In the bibliography attached an attempt is made at indicating a fairly complete collection of these notices of the Islands, and in the text of this Report to draw attention to points of interest and requiring further enquiry, or, what is quite as valuable, a collation of the printed information regarding them.

In the books, pamphlets and articles noted in the bibliography will be found many further references to information regarding the Andamans and Nicobars.

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CONTENTS.

PART I.—THE ANDAMANESE.

CHAPTER I.—THE CENSUS.

THE CENSUS 1

MAPS—

(1) The Andaman Group . . . . . to face page 1
(2) The Census Tours . . . . . „ 2
(3) Tribal Territories . . . . . „ 3
(4) Density of Population . . . . . „ 6
(5) Density of Former Population . . . . . „ 8

APPENDICES—

A. Census of the Andamanese; Chief Commissioner's Orders 11
B. Reports of Census Tours—
(1) First Tour: Diaries 15
(2) Second Tour: Diaries 22
C. Census Totals 26
D. List of Places visited 27
E. Table of Census Results by Places 28
F. Table of Census Results by Tribes 30
G. Tribal Distribution and Place Names 31

CHAPTER II.—DESCRIPTIVE.

I. Geography 34

MAPS—

(1) Contours of the Andaman Sea . . . . . to face page 35
(2) Andaman Straits and Channels . . . . . „ 36
(3) Andaman Hills and Harbours . . . . . „ 37

II. Meteorology 37

MAP—

Rain Gauges . . . . . to face page 39

III. Geology 40

MAP—

Earthquake Line . . . . . to face page 41

IV. History 44

CHAPTER III.—ETHNOGRAPHY.

I. The Race 47

MAP—

Divisions of the Andamanese . . . . . to face page 50

II. Physical Characteristics 53
III. Mental Characteristics 59
IV. Habits and Customs 61
V. Arts 66

APPENDICES—

A. Points of difference between Andamanese and Semangs 67
B. Jarawa Raids on the Settlement 68
C. Jarawa Papers, 1902 69

MAP—

Journeys in the Jarawa Country . . . . . to face page 88

D. Mr. Portman's Reports on the Onges, 1886 91

CHAPTER IV.—LANGUAGES.

I. General Description 96
II. Grammar 98
III. Etymology 109
IV. Phonology 115
V. Northern and Outer Groups 116

APPENDICES—

A. Theory of Universal Grammar 122
B. Onge-Jarawa Words and Names 135
C. The Fire Legend Analysed 137

Part II.—THE NICOBARESE.

Chapter I.—THE CENSUS.

THE CENSUS—

Maps—

(1) Nicobar Islands . . . . . to face page 139
(2) Census Tours . . . . . „ 140
(3) Dialects . . . . . „ 142
(4) Increase and Decrease of Population . . . . . „ 143
(5) Increase and Decrease by Language and Custom . . . . . „ 143
(6) Increase and Decrease by Communication . . . . . „ 143
(7) Density by Islands . . . . . „ 143
(8) Density by Dialects . . . . . „ 144
(9) Villages on Car Nicobar . . . . . „ 146
(10) Villages on Chowra, Teressa, and Bompoka . . . . . „ 146
(11) Villages on Camorta, Nancowry, and Trinkat . . . . . „ 146
(12) Villages on Katchall . . . . . „ 146
(13) Villages on Great and Little Nicobar, Kondul, and Pulo Milo . . . . „ 146

Appendices—

A. Local Census Totals, 1883 148
B. Abstract of de Roepstorff's Detailed Tables, 1883 149
C. Villages and Chiefs, 1901 153
D. Chief Commissioner's Orders 155
E. Chief Commissioner's Instructions 157
F. Chief Commissioner's Note 159
G. Reports and Diaries of Census Tours 160
H. De Roepstorff's Report, 1881 169
J. Car Nicobar. Return of Occupiers 175

Chapter II.—DESCRIPTIVE.

I. Geography 179
II. Geology 181
III. Meteorology 183
IV. History 185

Appendices—

A. Mr. E. H. Man's Report on the Penal Settlement in Nancowry Harbour, 1888 . . . 188
B. Extracts from Mr. E. H. Man's Report in 1880 197

Chapter III.—ETHNOGRAPHY.

I. The Race 198
II. Physical Characteristics 201
III. Mental Characteristics 204
IV. Religion 206
V. Social Customs 211

Map—

Cocoanut Proprietary in Central Group, 1883 and 1901 . . . . . to face page 214
VI. Arts 214
VII. Commerce 217

Appendices—

A. Dampier's Account of the Nicobars, 1688 221
B. The Ossuary Feast of Car Nicobar 226
C. De Roepstorff's Tale of Shoān 230
D. Authentic Cases of "Devil" Murders, Car Nicobar 232
E. Relations with the British 239
F. De Roepstorff's Note on the Shom Pen 240
G. Car Nicobar, List of Chiefs, 1896 241
H. List of Trade Articles valued in Cocoanuts 242
I. Trade Returns in 1857 (*Novara* Expedition) 243
J. Nicobarese Reckoning 244
K. Detail of Reckoning the Months 249
L. De Roepstorff's Calendar 250

Chapter IV.—LANGUAGES.

I. General Description 251
II. Grammar 256
III. Etymology 268
IV. Phonology 279
V. Comparative Dialects 280
VI. Comparative Philology 282

PART III.—THE PENAL SETTLEMENT.

CHAPTER I.—THE CENSUS.

THE CENSUS— 298

APPENDICES—
A. Census Tables, 1901 298
B. Census Tables, 1891 329
C. Census Tables, 1881 339

CHAPTER II.—DESCRIPTIVE.

I. Geography 350

MAPS—
Penal Settlement of Port Blair . . . . . to face page 350
" " of Districts and Sub-divisions . . . . . " 351
" " Convict Distribution, Stations and Villages . . . . " 352
" " Forest lands . . . . . " 352
II. Administration 353
III. History 356
IV. Language 362

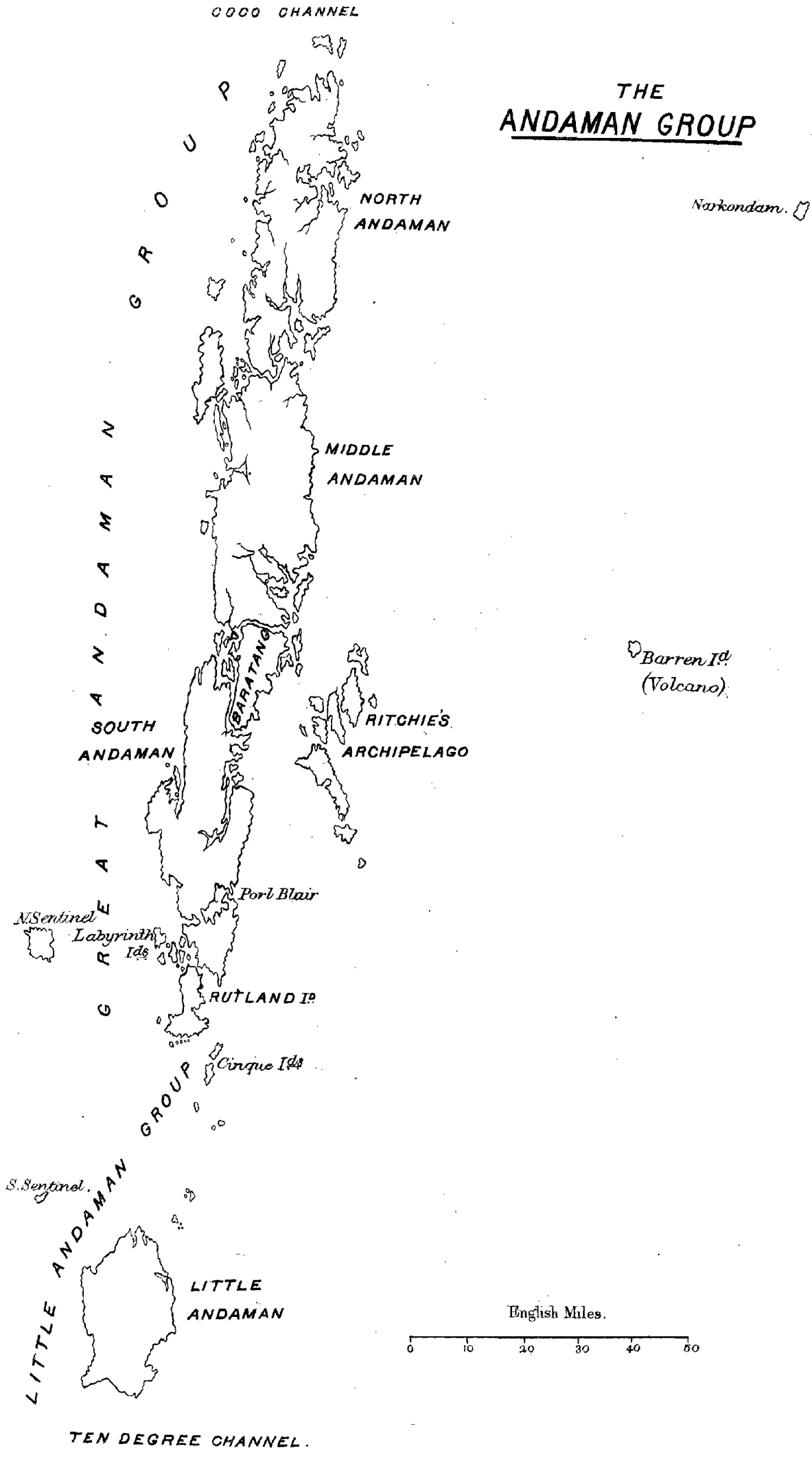
APPENDIX—
A. Fundamental Principles of the Penal Settlement 365

CHAPTER III.—ETHNOGRAPHY.

I. The Convict Body 366
II. The Labouring Convicts 375
III. The Self-supporters 377
IV. Sickness and Mortality among the Convicts 380
V. The Free Residents 398

APPENDICES—
A. Daily Labour Statement, Dry Season of 1901 402
B. Average Labour Statement for 1901—Phœnix Bay Workshops 403
C. " " " " —Female Jail 404
D. Results of Enquiry into the Caste History of the "Local Born" 405

INDEX 411


COCO CHANNEL
GREAT ANDAMAN GROUP
NORTH ANDAMAN
MIDDLE ANDAMAN
BARATANG
SOUTH ANDAMAN
RITCHIE'S ARCHIPELAGO
Port Blair
N. Sentinel
Labyrinth Ids
RUTLAND Id
Cinque Ids
LITTLE ANDAMAN GROUP
S. Sentinel.
LITTLE ANDAMAN
TEN DEGREE CHANNEL.
THE
ANDAMAN GROUP
Narkondam.
Barren Id.
(Volcano)
English Miles.
0
10
20
30
40
50

PART I.

THE ANDAMANESE.

CHAPTER I.

THE CENSUS.

Conditions of Census-taking—Impossibility of Synchronous Census—Intelligent Assistance from Aborigines impossible—Hostile Tribes estimated only—Control of Operations—Census Tours—Method of Enumeration—Officers' Diaries—Method of estimating Önges and Jarawas—Attitude of the Andamanese—Points as to Defects in Enumeration—Jarawa Hostility—The Returns of the Andamanese—The former Population—Diagram of Past and Present Assumed Density—Methods of arriving at Former Density—The Kitchen-Middens—Future Prospects of the Race.

Conditions of Census-taking.—The conditions under which a Census of the Andamanese was attempted were the following. In the first place there are Andamanese "Homes" in the Penal Settlement maintained by the Government, to which any Andamanese of any Tribe may come and stay as long as he chooses. In the next place, for reasons hereafter to be explained, practically all the tribes but one are "friendly" and are at the present time very much mixed up with each other. In this mixed condition they are nomads, much given to rapid wandering all over the islands of the group known as the Great Andaman, in which the Penal Settlement is situated. In their most imperfect condition of civilisation it was quite hopeless to expect to induce them to remain in any one place for even one night or for any given period. And thus the first great difficulty to combat in attempting to enumerate them was to prevent the same persons from being counted twice or more times over.

Impossibility of Synchronous Census.—This difficulty was increased by the impossibility, owing to the nature of the country they inhabit, from enumerating the people all at once or at anything approaching a uniform time. As will be seen later on, the Andamans consist of the Great Andaman group and the Little Andaman, attached to each of which are a great number of smaller islands and islets. There is also the inhabited North Sentinel at some distance to the west of the general group. The Great Andaman consists of five main islands running from north to south thus:—North Andaman, Middle Andaman, Baratang, South Andaman, Rutland Island. All these are dove-tailed into each other by very narrow straits, not so wide as the ordinary rivers of a continent. The Little Andaman is situated at a considerable distance to the south. All round the Great Andaman are islands of every size; to the east is Ritchie's Archipelago and to the west are the Labyrinth Islands Every single island of the whole group is covered with a hilly jungle, the denseness of which must be seen to be appreciated, and passable only to its indigenous inhabitants. It is therefore impossible without much preparation and expense to traverse the interior of the islands, but happily it is quite easy to move about the deeply indented coasts, containing more harbours and snug anchorages than the whole Indian Peninsula. The length of the Great Andaman group is 156 miles: its average width is 9 to 10 miles and with the outlying islands some 25 miles. Two distant islands, Narcondam and Barren Island, to the east are also included in the Andaman group, but they are both uninhabited. It was, therefore, necessary to go over this area by coasting voyages, to stop at likely spots for encampments and to hunt about for the nomadic inhabitants of the neighbourhood: a work requiring much local knowledge, personal judgment and patience.

Intelligent Assistance from Aborigines impossible.—From the nature of the case it will be understood that very little reliance could be placed on the people themselves for assistance in the enumeration. Their inveterate, indeed necessary, habits of wandering, their childlike incapacity for responsibility of

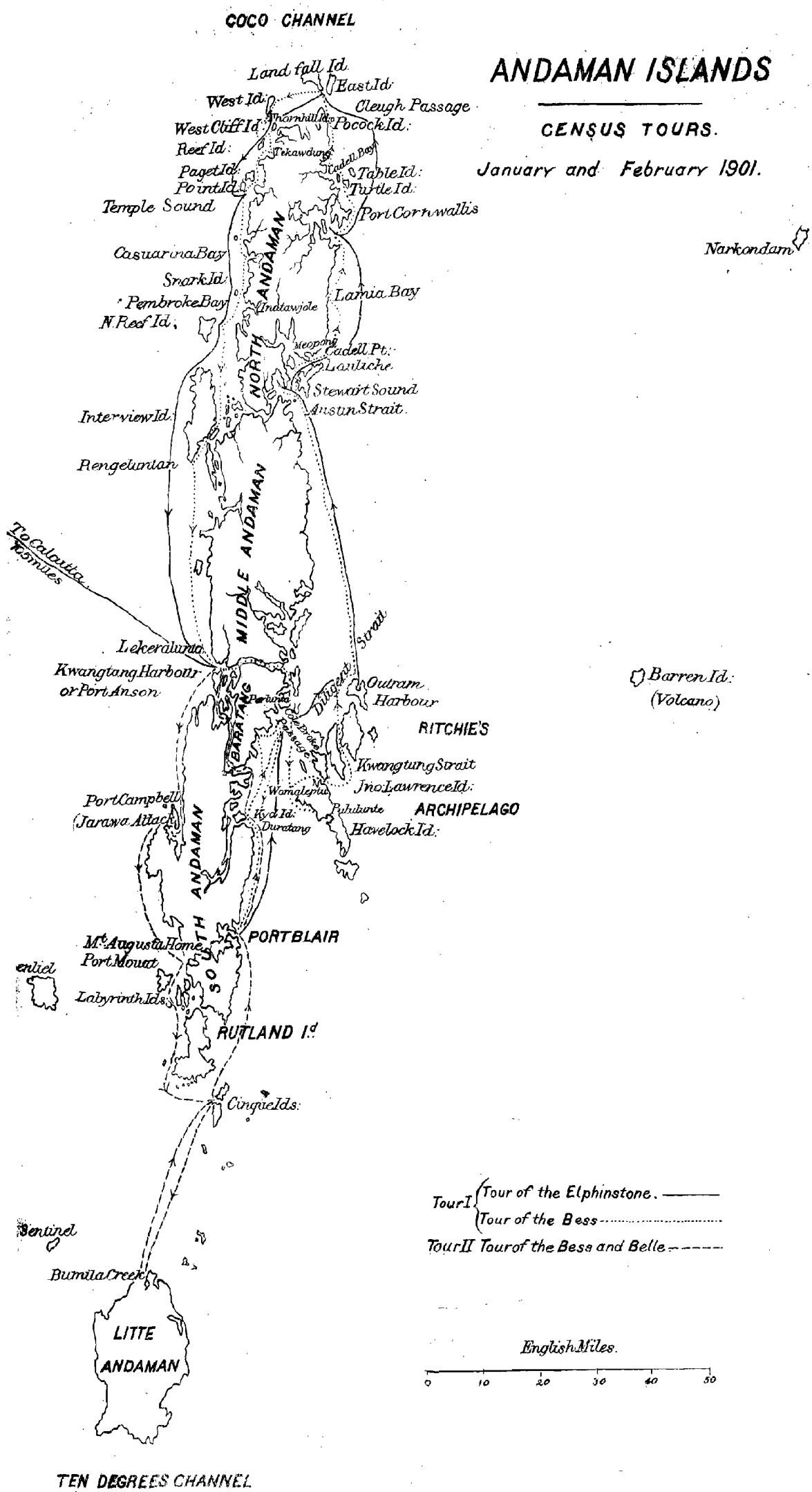
any kind and their equally childlike way of doing whatever is pleasant for the moment in place of performing a duty, would effectually prevent this. So the best had to be made of skilled European but, of course, essentially alien agency.

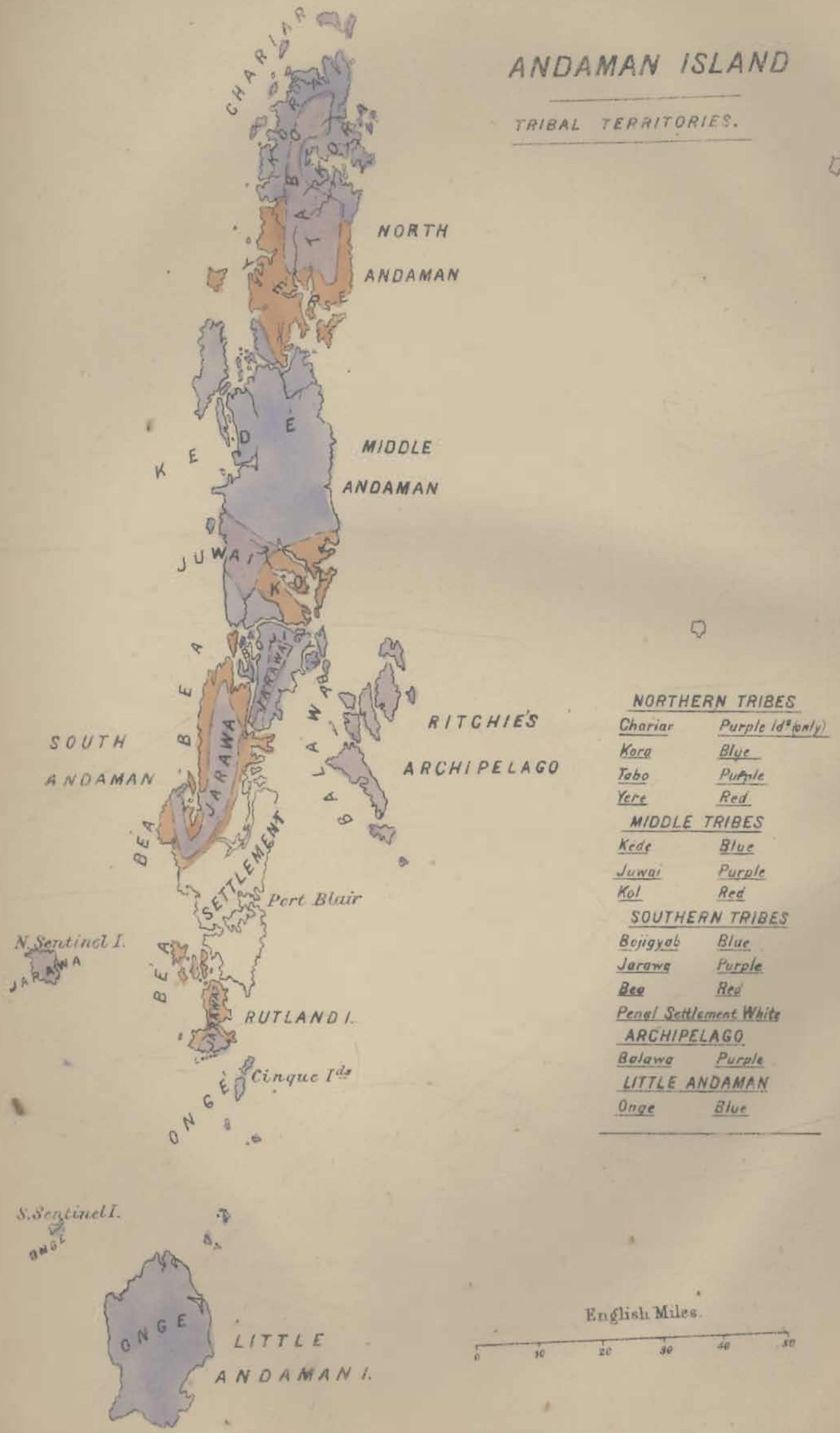
Hostile Tribes estimated only.—Although the whole of the Tribes on the Great Andaman (with the exception of the Jarawas of the interior of the South Andaman and part of its west coast and of the interior of Baratang) are on the most friendly terms with us and with each other, it was quite impossible to go into the Jarawa country at all. So was it impossible also to visit, for Census purposes, the North Sentinel and the greater part of Rutland Island, likewise inhabited by the Jarawas, as these people are as inimical to other Andamanese as they are to Europeans or Asiatics generally—their hostility being exhibited equally to every stranger. Again, the Önge Tribe, closely related to the Jarawas, inhabiting the Little Andaman and the Cinque Islands, have only of late become friendly in part and to an unknown extent only, and it was not thought advisable to do anything that might disturb a desirable feeling of friendliness and confidence in us that is yearly increasing in strength, and thus it was decided to leave them alone also. These two Tribes, now the largest of the Andamanese, had to be left to estimates, such as a very long acquaintance with the people generally on the part of the local officers warranted.

Control of the Operations.—In the circumstances to be faced I took the control of the Andamanese Census into my own hands and selected three officers to carry out the work. Mr. E. H. Man, C.I.E., Deputy Superintendent of the Penal Settlement, now retired, Captain (now Major) A. R. S. Anderson, I.M.S., Senior Medical Officer of the Penal Settlement, and Mr. H. H. D'Oyly, one of the District Officers of the Settlement. Mr. Man's numerous and unique writings on the Andamans, resulting from his very long acquaintance with the Andamanese, and his many years' personal charge of them, pointed to him as the official most likely to succeed in arriving at a definite idea of the numbers of the aboriginal population. I also generally superintended myself as much of the actual work of enumeration as my many duties connected with the islands permitted.

Census Tours.—It was decided that two separate tours should be undertaken round the Great Andaman. The first, in the R. I. M. S. *Elphinstone* accompanied by the large sea-going steam launch *Bess*, commenced at Port Blair on 25th January 1901 and lasted till 2nd February. The party proceeded up the east coast northwards, through the Archipelago, and down the west coast as far as Kwangtung Harbour (since renamed Port Anson by the Marine Survey). I was present during this tour myself and then had to proceed on duty to Calcutta in the *Elphinstone*. The business of the *Bess* was to accompany the *Elphinstone* everywhere and to go into passages and anchorages which were barred to the larger steamer. Kwangtung Harbour or Port Anson separates the middle and south Andaman Islands, and the *Bess* returned to Port Blair by the east coast through Homfray's Strait, the northernmost of the two dividing straits, picking up what additional information was possible on the way.

The second tour in the *Bess*, accompanied by the sea-going steam launch *Belle* of equal size, commenced at Port Blair on the 15th February 1901 and lasted till 18th February. The party proceeded northwards as before up the east coast to the middle strait, the southernmost of the two dividing straits, and thence to Kwangtung Harbour. It then proceeded down the west coast, through the Labyrinth Islands, round Rutland Island, to the Cinque Islands and thence to Bumila Creek in the Little Andaman, the occasion being taken to show as much civility as possible to a party of Önges. Thence the party proceeded home to Port Blair up the east coast. In this way was secured as comprehensive a circuit of the Andaman Islands as was possible in a short time and at a reasonable expense. In Appendix A will be found the detailed orders as to their tours, as they may be of use at the next Census; the operations at which, I apprehend, must be practically extensions of those undertaken this time. Attached to the orders are some notes on the navigation of the often very dangerous coasts of the Andamans and a sketch of the work performed daily.


COCO CHANNEL
ANDAMAN ISLANDS
CENSUS TOURS.
January and February 1901.
Land fall Id.
East Id.
West Id.
Cleugh Passage
West Cliff Id.
Thornhill Id.
Pocock Id.
Reef Id.
Tekawdang
Cadell Bay
Paget Id.
Table Id.
Point Id.
Turtle Id.
Temple Sound
Port Cornwallis
NORTH ANDAMAN
Casuarina Bay
Narkondam
Snark Id.
Pembroke Bay
Lamia Bay
Inatawjole
N. Reef Id.
Meopong
Cadell Pt.
Lanliche
Stewart Sound
Austen Strait
Interview Id.
Rengeluntan
MIDDLE ANDAMAN
To Calcutta 780 miles
Strait
Lekeraluma
Kwangtang Harbour or Port Anson
Barren Id. (Volcano)
Outram Harbour
Diligent
RITCHIE'S
ARCHIPELAGO
Kwangtung Strait
Jno. Lawrence Id.
Port Campbell
Wamplepua
Jarawa Attack
Kyd Id.
Puhlunte
Havelock Id.
Duratang
SOUTH ANDAMAN
PORT BLAIR
Mc. Augusta Home
Port Mouat
Labyrinth Ids.
RUTLAND I.d
Cinque Ids.
Tour I (Tour of the Elphinstone. ———
Tour of the Bess .....
Tour II Tour of the Bess and Belle – – – –
Sentinel
Bumila Creek
LITTE ANDAMAN
English Miles.
0 10 20 30 40 50
TEN DEGREES CHANNEL


ANDAMAN ISLAND
TRIBAL TERRITORIES.
CHARIAR
KORA
TABO
YERE
NORTH
ANDAMAN
KEDE
MIDDLE
ANDAMAN
JUWAI
KOL
BEA
JARAWA
SOUTH
ANDAMAN
BALAWA
RITCHIE'S
ARCHIPELAGO
SETTLEMENT
Port Blair
N. Sentinel I.
JARAWA
RUTLAND I.
Cinque Ids
ONGE
S. Sentinel I.
ONGE
LITTLE
ANDAMAN I.
NORTHERN TRIBES
Chariar Purple Id^s (only)
Kora Blue
Tabo Purple
Yere Red
MIDDLE TRIBES
Kede Blue
Juwai Purple
Kol Red
SOUTHERN TRIBES
Bojigyab Blue
Jarawa Purple
Bea Red
Penal Settlement White
ARCHIPELAGO
Balawa Purple
LITTLE ANDAMAN
Onge Blue
English Miles.
0 10 20 30 40 50

Method of Enumeration.—The actual method of enumeration was to select carefully from the Homes and attach to the Census officers the most intelligent of the Andamanese, who had lived there for years and were therefore conversant with Europeans and their ways and had acquired, by direct education or long contact with civilization, habits of restraint and obedience to orders. These men were employed all along the route in tracing the whereabouts of their people and in collecting information about themselves and their families. The information thus collected was carefully sifted, an operation requiring patience and much local knowledge, and entered in tabulated forms specially supplied. These forms showed the places at which information was procured, and the number of men, women, boys and girls, tribe by tribe, found by enquiry to be there. In my opinion this was all that could be reasonably attempted in the circumstances, and I limited the enquiry to this extent on the ground that it was better to attempt to do a little reasonably well than to attempt a Census on a scale that the conditions did not fairly permit.

Officers' Diaries.—Each officer was required to keep a diary and to record therein everything of interest that came under his observation, with the view of taking advantage of the tours to collect all the miscellaneous information that could be acquired in the time available. Maps were also supplied on which officers were required to enter every camp and inhabited place they heard of and especially every Andamanese place-name they ascertained. This last was of value, because to the Andamanese any but their own names for places are unintelligible. The chief results of the enquiries are recorded in the officers' reports attached in Appendix B.

Method of estimating Önges and Jarawas.—As to the two Tribes, Önges and Jarawas, of whom no attempt was made at a direct enumeration, it is necessary to explain the method of arriving at the assumed figures for them. The people best known to us are those of the southern islands of the Great Andaman group, the population of which is now very small from causes that will be hereafter examined. The figures for these tribes (Kede, Juwai, Kol, Bojigyab, Balawa, Bea) were taken as a basis upon which to build up figures for the Önges and Jarawas respectively as being something definite to go upon.

The Önges have not been brought under the influence of the causes that have led to the depopulation of the areas occupied by the Southern Andaman Tribes and are known to be much more numerous. Taking this fact into consideration and also the area of their occupation, it has been assumed that their numbers reach to three times the present totals for the above named Tribes. In dividing up the figures thus arrived at into sexes, there is no particular difficulty as regards adults, though that gives males 11 per cent. in excess of females, but there is much difficulty as regards children. In the present abnormal condition of the Southern Andaman Tribes the children are very few indeed, shown in the Census figures as only 24 per cent. of the adults, and among them, too, the males are shown as being nearly twice as numerous as the females. These are conditions impossible under the normal circumstances of a population maintained without extraneous immigration, and though for the purposes of calculation on a given basis, I allowed the figures to be returned officially for the Önges as under—

Adults.		Children.		Total.
Males.	Females.	Males.	Females.	
303	273	63	33	672

I do not believe the details to correctly represent facts, which among the Önges, presumably still existing under conditions normal to themselves, are more approximately arrived at, I think, on the following lines. Savage populations very quickly reach the limit of increase, that limit depending on their method of gaining a livelihood in the area they occupy. In other words, as long as savages adhere to their habits of life, the population remains stationary after a short period of occupation of a new territory. As regards the Andamans, until lately, as with the Nicobars, the population has, I think, for the above reasons been stationary through all historical times and long before that at very small figures. For reasons given below I should now place the totals for the Onges somewhat higher than has been above arrived at, and I would divide them up nearly

equally into adults and children and again nearly equally into sexes with a slight preponderance in favour both of children and females. Say, as under—

ÖNGES.

Adults.		Children.		Total.
Males.	Females.	Males.	Females.	
153	173	178	168	672

The Jarawas, more than probably old Önge emigrants from the Little to the Great Andaman and become separated from the main Tribe, occupy portions of Rutland Island, the interior of part of the South Andaman and of Baratang and all the North Sentinel. The figures for them have been assumed on three distinct bases. Those in the South Andaman and Baratang and those in North Sentinel have each been taken to be as numerous as the enumerated population of the other South Andaman tribes, *i.e.*, as equal in numbers to the Bea, Balawa, Bojigyab and Kol Tribes, and those in Rutland Island, on the same grounds as the Önges, to be three times as numerous as the South Andaman Tribes above named. These assumptions give the following figures :—

JARAWAS.

In South Andaman and Baratang.	In North Sentinel.	In Rutland Island.	Total.
117	117	351	585

As regards the figures thus arrived at, circumstances which have occurred since the Census strongly support their general correctness for the South Andaman and Baratang. Arguing on the same lines as in the case of the Önges, I believe the conditions in the North Sentinel would support about 117 people and not more, and that the figures for Rutland Island are somewhat too highly placed. For reasons given below, it is probable that the Jarawas have been placed about 100 too high and the Önges about 100 too low : the general total for all the Tribes being most likely about right. In reference however to the details of the Jarawas as returned at the Census, *viz.* :—

JARAWAS.

Adults.		Children.		Total.
Males.	Females.	Males.	Females.	
280	210	55	40	585

I feel sure from what has since transpired that the children do somewhat outnumber the adults and the females the males, and I would on the Census returns divide up the Tribe as follows :—

JARAWAS.

Adults.		Children.		Total.
Males.	Females.	Males.	Females.	
126	146	162	151	585

Again, when dividing the above figures up into their three elements, recent expeditions support the figures then reached as regards the South Andaman at any rate, thus :—

JARAWAS.

	Adults.		Children.		Total.
	Males.	Females.	Males.	Females.	
South Andaman and Baratang . .	25	29	32	31	117
North Sentinel .	25	29	32	31	117
Rutland Island . .	76	88	98	89	351
Total .	126	146	162	151	585

This table fully bears out the fact, now locally recognised as probably true on othergrounds, that the number of Jarawa fighting men, who have done so much damage in the jungles on the outskirts of the Penal Settlement for so many years past, are very few, probably not more than 30, and that the entire strength of the Tribe in the South Andaman is not more than about 120.

Attitude of the Andamanese.—The attitude of the people towards the Census was interesting. Several of the civilised Andamanese of the Homes took an active interest in the proceedings and a great deal of trouble in going into places where Europeans could not follow; at Port Cornwallis traversing the jungles from the east to the west coast for us. One or two were of the greatest assistance. Of the people met with on the tours none showed the least objection to delivering up the names of their relatives and friends and their probable abode at the time, *i.e.*, so far as their treacherous memories and innate mental carelessness and haziness permitted. They could of course never give up numbers, as the wild untrained Andamanese cannot count at all nor does his language include numbers.

A plan was tried, for checking names ascertained and numbers assumed for the people of the interior not seen by the Census party, of giving coloured beads to an intelligent man, Boya *alias* Snowball, and using these for enumeration thus. He is a Chariar, the tribe of the extreme north, and at the end of the first tour he was started up the east coast above Homfray's Strait to traverse the interior of the Middle Andaman and North Andaman and note every person he met, who had not been seen during the tours, by means of the beads. There were four distinct colours of beads and each colour was shown him respectively for men, women, boys and girls. These beads were in one bag and he had an empty one also; and he was to transfer from the full to the empty bag a bead, colour by colour, for each person he met. After a little practising he was sent off, and as he had been a long while at the Home and took an absorbing personal interest in the Census, much was hoped from the plan and the party were not disappointed.

It will be understood that the actual enumeration proceedings with the people were as informal as possible and they were humoured in every practicable way. Thus they were fed up with what they consider luxuries, rice, sugar, biscuits, tea, tobacco, pipes and so on. Archery matches, games, fish-shooting (with arrows), pig-hunting, photographing, anything they fancied was got up on the spur of the moment and the Census tour necessarily took the form of a tour of amusement and sport, but in the midst of the fun the Census officer was ever present with his note-book and his apparently casual questions. Although the procedure enabled us to collect all the information procurable from a wild but friendly and happy population on the points required, it had one drawback. Canoe loads of Andamanese would follow us from anchorage to anchorage, knowing from experience where we were likely to stop, and quite innocently give the same names again and again to our Census enquirers. A sifting of the notes and recognition of faces, however, I think prevented any practical harm accruing from this source.

Points as to Defects in Enumeration.—The aged, the sick, those engaged in pig-hunting in the interior (a matter of great practical importance as well as of sport to the Andamanese) we did not see—nor did we see any children except those who could accompany their parents. In the case of the absent adults it is likely that most of the names were delivered up, but I think it likely that a good many children in the North Andaman at any rate and especially of the "new" Tribes were not enumerated.

Jarawa Hostility.—There was never anywhere anything disagreeable whatever, except at one spot where a large party of Jarawas was met with. This was a purely accidental meeting in this way. The habitat of the Jarawas, who have no boats, is in the South Andaman, in the interior of the island. The coasts are the territory of the Bea Tribe. But as the Bea Tribe is now very much reduced and chiefly inhabits the Home at Port Blair, the Jarawas on the west coast pay uncertain visits to the seashore at several points. Port Campbell is one of these points, and it was while anchoring here and going towards the shore to see if any friendly, that is Bea or "Home," Andamanese were about, that an unintentional approach was made to a Jarawa hunting camp, which persistently attacked the Census party until driven off by fire arms with the loss of one of their party. The story of this affair is detailed in Appendix B.

Returns of the Andamanese.—As regards the Andamanese no difference was made between the provisional and the final returns, the Census figures for the Andamanese, provisional and final, being as stated in the accompanying table.

ANDAMAN ISLANDS.

FIGURES FOR THE ABORIGINES CENSUS, 1901.

Name of Tribe.	Adults.		Children.		Total.	Occupied area in square miles.	Density per square mile.
	Male.	Female.	Male.	Female.			
	No.	No.	No.	No.	No.	No.	
Châriâr . . .	16	15	6	2	39	47	·83
Kôrâ . . .	31	32	14	19	96	137	·70
Tâbô . . .	15	16	7	10	48	158	·30
Yêre . . .	98	80	26	14	218	198	1·10
Kede . . .	24	30	3	2	59	371	·16
Jûwai . . .	21	19	7	1	48	110	·43
Kôl . . .	6	2	3	...	11	161	·07
Bojigyâb . . .	31	14	2	3	50	148	·34
Balawa . . .	5	10	3	1	19	141	·13
Bêa . . .	14	16	3	4	37	117	·21*
Jarawa . . .	280	210	55	40	585	220	2·66
Ônge . . .	303	273	63	33	672	373	1·30
TOTAL .	844	717	192	129	1,882	2,181*	·86

* Excluding occupied area of the Settlement 327 square miles.

In the above table the Jarawas should be divided between the Great Andaman, North Sentinel and Rutland Island. Thus divided, the special table for them is as under :—

JARAWAS.

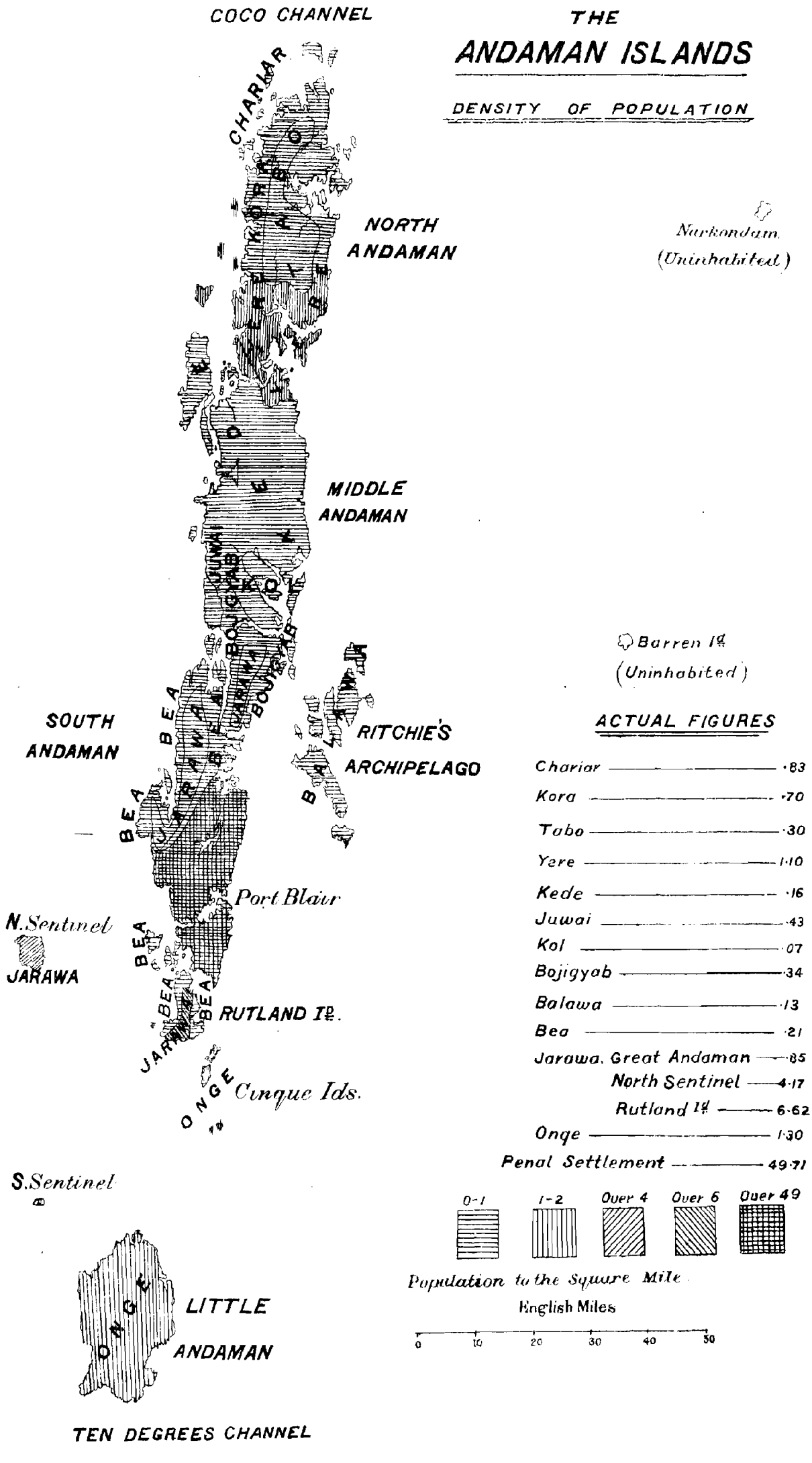
	Occupied area in square miles.	Population.	Density per square mile.
In Great Andaman	139	117	0·85
In North Sentinel	28	117	4·17
In Rutland Island	53	351	6·62

The density figure thus arrived at is, I think, about right for the Great Andaman and I am not prepared to say that it is far wrong for the North Sentinel, but it is probably a good deal too high for Rutland Island, *i.e.*, it would appear from this argument that the whole population of the Jarawas have been placed at too high a figure.

It will be noted that the above figures give a density of population among the aborigines of less than one per square mile, *not* an unlikely fact. Commenting generally on these returns I should say that the figures for the Kede, Juwai, Kol, Bojigyab, Balawa and Bea tribes are right; so much is known about them that statements of the people as to themselves are not difficult to check. But I think it likely that the Chariar children are understated. I am not prepared to be positive as to this, however, as this Tribe, too, is well known and understood. The Yere children are probably much understated, though from what is known of this Tribe it is likely that the adults are greatly in excess of the children.

I was present when in 1900 the Kora were discovered, or to speak more accurately differentiated. They had been previously well known, themselves and their encampments, but had been considered to belong to the Chariar. The discovery as to the true facts—that they were a separate Tribe with a territory and language of their own—so late as 1900 is an example of the difficulty in procuring accurate information from such primitive savages as the Andamanese. It mattered nothing to them that Kora men and women had been to the Home at Port Blair and had been classed as Chariar. All they thought of the matter was that the sahibs held them to be Chariar, but that they and all the Andamanese knew better! In this case I think it likely that a similar error has been made as regards the children as in the case of the Yere Tribe.

In regard to the Tabo of the interior of the North Andaman, whose existence was unsuspected by us until the Census, the figures given must be taken with some caution, despite the native explanation of the cause of the destruction of


COCO CHANNEL
THE
ANDAMAN ISLANDS
DENSITY OF POPULATION
CHARIAR
KORA
TABO
YERE
NORTH ANDAMAN
Narkondam.
(Uninhabited)
KEDE
JUWAI
BOJIGYAB
KOL
MIDDLE ANDAMAN
Barren Id.
(Uninhabited)
SOUTH ANDAMAN
BEA
JARAWA
BOJIGYAB
BALAWA
RITCHIE'S ARCHIPELAGO
Port Blair
N.Sentinel
JARAWA
BEA
RUTLAND Id.
ONGE
Cinque Ids.
S.Sentinel
ONGE
LITTLE ANDAMAN
TEN DEGREES CHANNEL
ACTUAL FIGURES
Chariar ·83
Kora ·70
Tabo ·30
Yere 1·10
Kede ·16
Juwai ·43
Kol ·07
Bojigyab ·34
Balawa ·13
Bea ·21
Jarawa, Great Andaman ·85
North Sentinel 4·17
Rutland Id. 6·62
Onge 1·30
Penal Settlement 49·71
0-1
1-2
Over 4
Over 6
Over 49
Population to the Square Mile
English Miles
0
10
20
30
40
50

the Tribe, that they killed each other off in consequence of the introduction of contagious disease amongst them by the Chariar or Kora Tribes. It is somewhat difficult to believe that even a savage Tribe would actually kill off the sick to such an extent as to reduce themselves to half a dozen families or hunting camps. Even then the children would not be affected by the process and should in such case be much more numerous than the adults, but they are recorded as being in a minority of nearly 55 %. It is probable that both the figures for the adults and the children are in this case understated.

Criticisms on the figures for Önges and Jarawas have already been made.

Taken all round, however, the totals for the whole of the Andamans are not likely on the above grounds to be very far wrong and to my mind an estimate of 2,000 is about correct for the existing population of this primeval and most interesting race. At the next Census it will possibly be practicable to arrive at more accurate figures in the light of the present experience by carefully considering how the defects noticed on this occasion can be remedied.

Former Population.—It has been well known for years past that the Andamanese population was even a generation ago far more numerous than it is now and proceeding on the general principles followed in the remarks above made, it seems to me that a fairly accurate estimate of the old normal population can be arrived at. The principles governing the estimate would be—

(1) the population has always been stationary,
(2) the population has been limited by habits as to food production and by the area of productive occupation,
(3) the relative size of the Tribes as gauged by their present strength combined with exposure to devastating contagious or infectious diseases,
(4) the capacity of each Tribe to hold its own with neighbouring Tribes.

On these grounds I estimate the combined Önge-Jarawa Tribe as having been always of its present estimated strength and the other Tribes as under, keeping to the further principle that the adults and children have always been about equal and that the sexes also have been about equal: preponderance in favour of women over men and of male over female children.

ANDAMAN ISLANDS.

ESTIMATES OF THE OLD NORMAL POPULATION.

Name of Tribe.	Adults.		Children.		Total.	Occupied area in square miles.	Density per square mile.
	Male.	Female.	Male.	Female.			
Châriâr	20	25	30	25	100	47	2·13
Kôrâ	105	120	140	135	500	137	3·65
Tâbô	40	50	60	50	200	158	1·27
Yêre	150	165	200	185	700	198	3·50
Kede	105	120	140	135	500	371	1·35
Jûwai	60	75	90	75	300	110	2·73
Kôl	20	25	30	25	100	161	0·62
Bojigyâb	60	75	90	75	300	148	2·03
Balawa	60	75	90	75	300	141	2·12
Bêa	105	120	140	135	500	444 *	1·13
Jarawa	130	140	170	160	600	220 †	2·73
Önge	150	165	200	185	700	373	1·88
	1,005	1,155	1,380	1,260	4,800	2,508	1·91

Males—2,385 Females—2,415 = Total 4,800.
Adults—2,160 Children—2,640 = Total 4,800.

* Including 327 square miles now occupied by the Penal Settlement.

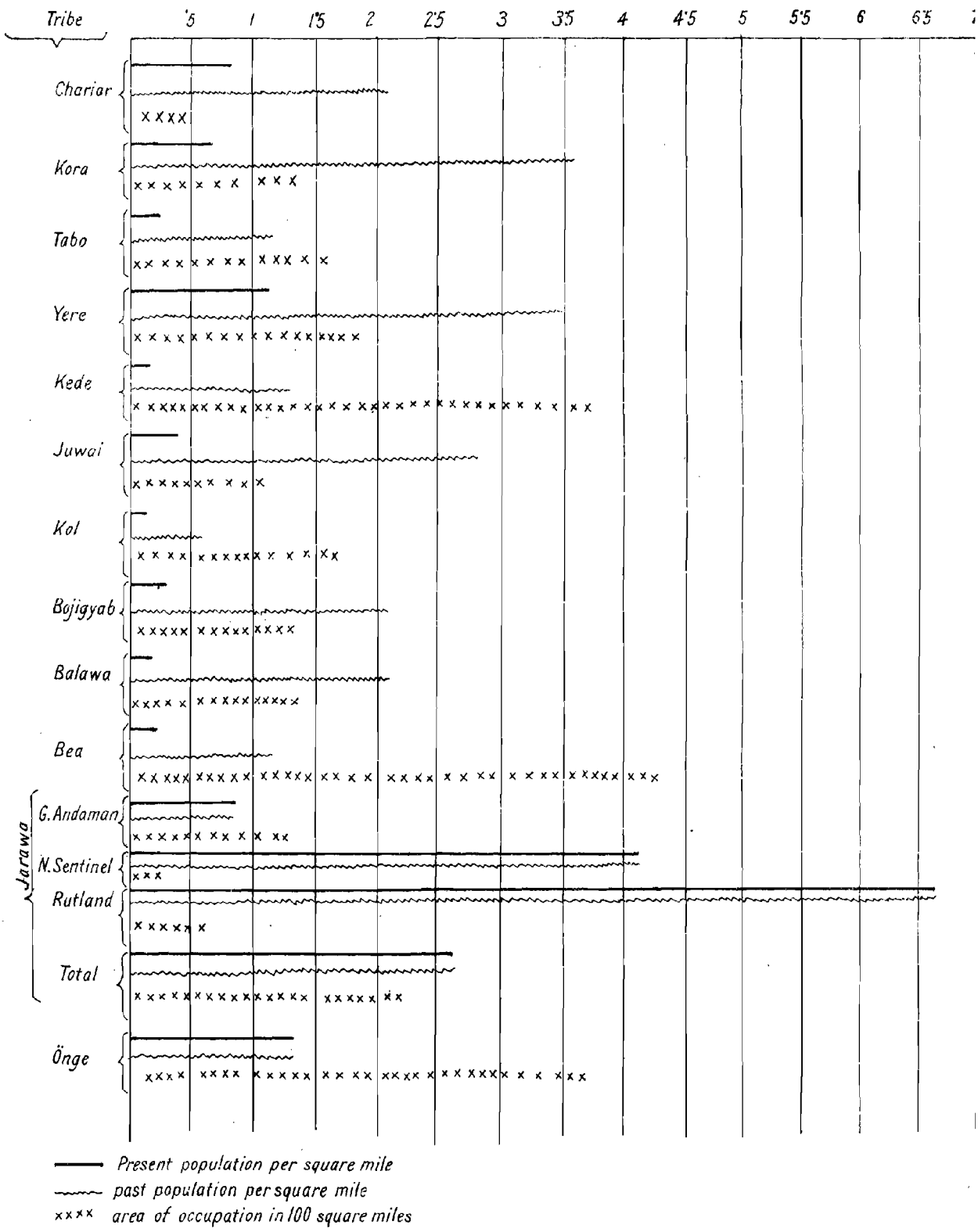
† The Jarawa density being divided up as per foot-note to paragraph thus:—

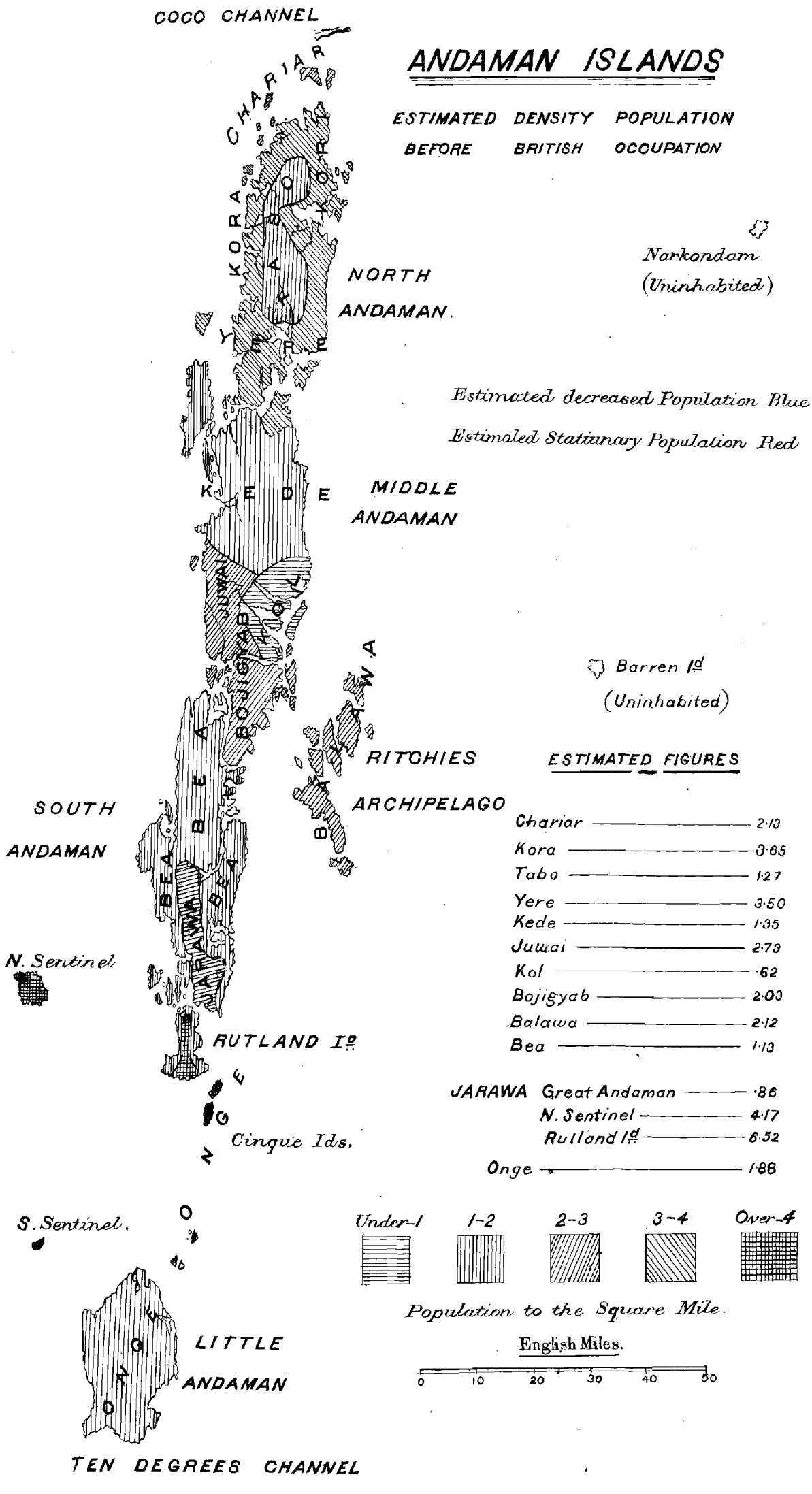
·86 } Great Andaman.
4·17 } North Sentinel.
6·62 } Rutland.

I feel pretty sure that the indigenous population of the Andaman Islands was at no time higher than 5,000 and that it was for many centuries stationary. The density figures also work out to about two to the square mile and that, too, I think a reasonable figure to adopt for the old indigenous population before contact with Europeans.

Diagram of Past and Present Density.—Proceeding to put the conjectures arrived at above to the further test of a diagram illustrating the present and past assumed density of the Andamanese Tribes compared with the area actually occupied by each Tribe, the following facts are arrived at.

DIAGRAM ILLUSTRATING PRESENT AND PAST ASSUMED DENSITY OF THE POPULATION OF THE ANDAMANESE TRIBES WITH AREA OCCUPIED BY EACH.




COCO CHANNEL
CHARIAR
KORA
TABO
YERE
NORTH ANDAMAN.
KEDE
MIDDLE ANDAMAN
JUWAI
KOL
BOJIGYAB
BALAWA
RITCHIES ARCHIPELAGO
BAY
BEA
BEA
JARAWA
SOUTH ANDAMAN
N. Sentinel
RUTLAND Id.
ONGE
Cinque Ids.
S. Sentinel.
LITTLE ANDAMAN
TEN DEGREES CHANNEL
ANDAMAN ISLANDS
ESTIMATED DENSITY POPULATION BEFORE BRITISH OCCUPATION
Narkondam (Uninhabited)
Estimated decreased Population Blue
Estimated Stationary Population Red
Barren Id (Uninhabited)
ESTIMATED FIGURES
Chariar — 2·13
Kora — 3·65
Tabo — 1·27
Yere — 3·50
Kede — 1·35
Juwai — 2·73
Kol — ·62
Bojigyab — 2·03
Balawa — 2·12
Bea — 1·13
JARAWA Great Andaman — ·86
N. Sentinel — 4·17
Rutland Id — 6·52
Onge — 1·88
Under-1
1-2
2-3
3-4
Over-4
Population to the Square Mile.
English Miles.
0 10 20 30 40 50

From this diagram it becomes pretty evident that the Jarawa population for Rutland Island has been assumed at too high a figure, both for the past and present time. At the same time I think that it is equally probable that the population of the Önges has been underestimated. Taking all the calculations and known facts into consideration, my own opinion is that the assumptions for the Andaman population as a whole, both for the past and the present are probably near the truth, but that we should decrease the Jarawa estimate for Rutland Island (and to that extent the whole Jarawa population) by 100, and increase the Önge estimate by 100.

Method of arriving at Former Density.—Portman, *History of our relations with the Andamanese,* Volume I, page 16, gives the following reasons for holding the Andamanese population to have been formerly stationary :—

> "When we consider that some Andamanese have no children, very few have more than three, the majority of the children die in infancy, and the grown-up Andamanese revenges the slightest injury to his person or property or even a fancied insult by a murder and also that the Tribes were continually at feud with each other, I think we may say the above estimated population (his estimate is 8,000) to be the average for many centuries past."

This is an overstatement, as in the first place it is necessary in a stationary population for each couple to produce on an average two children, who grow up and produce again in their turn, and in the next place, though an Andamanese will murder on, to us, extremely slight provocation, he is not a murderous variety of mankind and in tribal "wars" the bloodshed at each collision is very small indeed. In the next place, as Portman himself observes, the average number of children to a married woman was three, while instances of seven and eight children of one mother have been recorded. The statement is however an interesting one, as an observation on these primitive savages and their ways and as indicating the causes for the population being kept stationary.

The Kitchen-Middens.—Portman also points out (*op. cit.*, p. 17) that an estimate of the old population can be arrived at from locating and enumerating the existing kitchen-middens of the Andamanese, on the assumptions that each midden represents the head-quarters of a Sept of 30 people and that apparently each Sept, owing to the habits of the people, would require four to five such head-quarters. A population of 5,000 would therefore require, say, 600 middens, *i.e.*, there should be a midden to every four square miles of territory.

The value of the kitchen-midden argument comes out thus:—(1) The size, 50 feet diameter usually, does not permit more than 30 people to live on it; (2) change of head-quarters is frequently necessary owing to (*a*) monsoons, (*b*) exhaustion of food in the neighbourhood, (*c*) nomadic instincts, (*d*) stench from discarded food thrown around. As a matter of practice the Andamanese do not return for three months after they have left a midden, nor for about a year after a death in one, and occasionally they abandon a midden for many years, and cannot occupy one for more than a few weeks at a time from the stench about it. These considerations fix four as the smallest number of middens per 30 people.

The middens also beyond all doubt prove that the Andamanese are now as they were an exceedingly long time ago. There are but few "newer" middens, and the older ones show great age: newness and age being gauged by height. The antiquity of the old middens is proved by the fossil shells at the base. Now, except that certain shell-fish have been fashionable at one period and certain others at another, the kitchen-middens show that the Andamanese finds his food to-day as he did in the days when the now fossilised shells contained food for him. At the base of the middens are found the same refuse and the same pottery as we find shown on the surface to-day.

Here then we have a people unaltered in habits from primeval time and whose numbers, if these premises be correct, we should be able to estimate from existing data, as they must have been stationary through all time.

The questions on this argument really are therefore:—(1) how many middens are there ? (2) where are they ? To these questions it is worth while obtaining answers at the next Census or even as opportunity occurs, as the answers will either upset the theory or afford an approximate estimate of the old Andamanese population and of the strength of each tribe.

Future Prospects of the Race.—It is now 26 years since I first became acquainted with the Andamanese, and I was present amongst them in one of the great devastating outbreaks of infectious disease (measles introduced by convicts from Madras) in 1877, and I personally know how much more numerous they were then than now. The one sad result of the Census has been to demonstrate beyond all doubt, what most local officials suspected and some asserted, that infectious and contagious diseases, the result of contact with an advanced civilisation, are wiping out the Andamanese: at any rate the friendly sections of them. With a population so diminished in one generation and a birth-rate so inadequate, it is obviously impossible, unless the people have reached or are about to reach that point of saturation with these diseases which is also the point of immunity and recovery from their effects, for the race to last out much longer. Excluding the Önge-Jarawas, all the other tribes now number, on any reasoned calculation, not more than 700, of which some 250 belong to one Tribe, the Yere, out of an estimated total of 3,500 only a generation ago, while the children cannot in any case be much more than 25 per cent. of the adults. On these figures, in two more generations, *i.e.*, in probably less than 60 years, even if undisturbed and unmolested by the Jarawas ever-increasing in relative strength, the friendly Tribes must die out. A century must be taken as the extreme limit of a forecast of their existence, unless of course the law of saturation with disease to the point of immunity comes into play.

It also seems not difficult to foresee that it is possible that in a short time the Great Andaman will be occupied by the Penal Settlement and the Jarawas only, with a chance, in the case of the latter becoming friendly and losing their exclusive bearing, that they too will succumb to a rapid disappearance, through what may be called the natural action of infectious and contagious disease, not necessarily carried to them by the civilised alien, but more probably, as past experience shows, by diseased members of the remnants of the "friendly" Tribes captured in collisions with them.

There is nothing new in the disastrous effect of infectious or contagious disease on savages when introduced among them for the first time. It seems to be a process of nature not to be seriously checked by administrative measures. From the very first instructions of the Marquess Wellesley to Archibald Blair in 1789 to the existing practice in dealing with the Andamanese, there has never been any change in the general policy maintained towards the aborigines of the islands. They have been treated uniformly with kindness and consideration. From the first recorded hostile brush with them in 1787 to the operations ending with the gallant death of Mr. P. Vaux on 24th February 1902, nothing more has ever been done than was necessary to prevent murderous raiding into the lands under active occupation by ourselves. It is disease introduced by the carelessness and callousness of civilised individuals in the first instance and spread broadcast amongst the savages by their own ignorance in the next place that has worn down their actual numbers to one-fifth of the former total in one generation and has apparently now rendered the union of the sexes infructuous in three-fourths of the cases.

APPENDIX A.

CENSUS OF THE ANDAMANESE, 1901.

Chief Commissioner's Orders.

1. The Census of the Andamanese outside the Penal Settlement will be undertaken by Mr. E. H. Man, C.I.E., with the assistance of Captain A. R. S. Anderson, I.M.S., and Mr. H. H. D'Oyly during two tours round the Andaman Islands.

2. Mr. Man will draw up a list of the Andamanese words that are likely to be required by his assistants for the Census, and furnish a copy to each of them.

3. Mr. Man will also supply competent guides each to Captain Anderson and Mr. D'Oyly while separated from himself.

4. Each officer will be supplied with the necessary forms and a note-book and pencil; and each officer will keep a diary of his proceedings and record therein all matters of interest observed during the tours. A set of maps also will be taken on which should be entered daily the locality of every inhabited place ascertained during the tours and also every Andamanese place-name that comes to notice.

5. The procedure of recording the Census will be to make such enquiries as are possible at every camp visited and from the people met *en route*, and from the information thus received to fill in the accompanying form. Nothing more can be done and nothing more should be attempted.

FORM A.

For the Census of the Andamanese outside the Penal Settlement.

Serial number of sheet_____

Information procured at _____ in _____ Island.

Serial number of place in next column.	Name of place as to which information is procured.	Island in which it is situated.	Number of people assumed to be there of the Tribe in the next column.					Name of Tribe.
			Men.	Women.	Boys.	Girls.	Total.	
		Total for all Tribes .						

Note.—The names of the Andamanese Tribes to be contained in this form are Aka-Bea, Bojigyab, Balawa, Kol, Kede, Chariar, Yere, Kora. The Önge and Jarawa Tribes will be estimated separately.

6. The Önge Tribe will be added to the figures obtained as above on the assumption of their being three times as numerous as the enumerated Andamanese.

7. The Jarawas will be added to the figures obtained as above on the following assumptions:—

(*a*) Those in the South Andaman as being as numerous as the counted population of South Andaman.
(*b*) Those in North Sentinel Island on the same assumption.
(*c*) Those on Rutland Island on the same assumption as that for the Önges.

8. The programmes of the tours will be as follows, wind and weather permitting. The speed of the launches is assumed for the present purpose to be about seven knots.

Tour I.

9. The R. I. M. S. *Elphinstone* accompanied by the steam launch *Bess* will leave Port Blair on the 25th January 1901.

10. Programme for the *Elphinstone*.

25th January.— Port Blair to Colebrooke Passage. 33m.
26th „ To Outram Harbour *viâ* Diligent Strait. 15m.
27th „ To Stewart Sound. 44m.
28th „ To Port Cornwallis. 33m.
29th „ To East Island. 27m.
30th „ To Temple Sound *viâ* Cleugh Passage. 17m.
31st „ To North Reef Island. 27m.

1st February.—To Kwangtung Harbour. 50m.
2nd „ To Calcutta, arriving 5th February. 705m.
Total mileage for *Elphinstone*. 951m.

11. Programme for the Bess.

25th January.—Port Blair to Kyd Island. 19m. 3 hrs. To Colebrooke Passage. 18m. 3 hrs. Total 37m. 6 hrs.
26th „ To Outram Harbour *viâ* the Archipelago, through the Tadma Juru Strait between Peel and Havelock Islands and Kwangtung Strait. 37m. 5½ hrs.
27th „ Stewart Sound (Bacon Bay). 44m. 6½ hrs.
28th „ Port Cornwallis *viâ* Lamia Bay. 41m. 6 hrs.
29th „ Temple Island *viâ* Turtle Island anchorage. 23m. 4 hrs. Cadell Bay 8m. 1 hr. East Island 12m. 2 hrs. Total 43m. 7 hrs.
30th „ Temple Sound *viâ* Cleugh Passage. 18m. 3 hrs.
31st „ N. Reef Island *viâ* Casuarina Bay. 32m. 5½ hrs.
1st February.—Kwangtung Harbour *viâ* Interview Passage. 50m. 10 hrs.
2nd „ Elphinstone Harbour *viâ* Homfray Strait. 10m. 2 hrs.
3rd „ Port Blair *viâ* Colebrooke Passage, 44m. 6½ hrs.
Total for the *Bess*: ten days' tour of about 356 miles in about 55½ hrs. under steam at about seven knots.

12. Notes as to Navigation for the Census Party during Tour I.

25th January.—There is a bar off the entrance to Shoal Bay near Kyd Island, which must be considered in entering and leaving. You should anchor right inside Colebrooke Passage at the anchorage marked on our private chart. There is a well-known camp just opposite the anchorage and one further up the creek, which is really the Colebrooke's Passage into Elphinstone Harbour.

26th January.—On passing through the Tadma Juru Strait between Peel and Havelock Islands from the west, you should go well out to eastwards, as the reef of John Lawrence Island runs out a long way. "Pilot Rock (1844)" is I think a myth. There is a private chart of Kwangtung Strait. It has plenty of water. There is a large camp near the middle on the east side. In Outram Harbour there is a nasty bar most of the way across. It is best to anchor outside the bar. There is a well-known camp on the inside of the eastern arm of the Harbour.

27th January.—In Stewart Sound anchor in Bacon Bay at the anchorage shown on the private chart. The entrance to Austin Strait is some miles to the south, with a shallow mud bar at the entrance which has very little water over it at low tide. There is plenty of water in the Strait. The western entrance is bad. There is a camp about half way through on the southern side.

28th January.—There is a large camp in Lamia Bay and one on the north side of Port Cornwallis.

29th January.—Turtle Island anchorage is shown on the private chart. There is a camp inside the creek off Temple Island, just inside the entrance to port as you enter. Cadell Bay is a good spot to enquire about camps along the coast to Cleugh Passage. There is a camp on each side the anchorage between East and Landfall Islands.

30th January.—Cleugh Passage requires careful navigation and the tides are very strong with ripples and overfalls. At Temple Sound there are three camps on Paget Island and there are camps all along the Coast from the western end of Cleugh Passage.

31st January.—There is a camp on north Reef Island and a large one in Casuarina Bay. The Coast off Austin Strait is not fit for the *Bess*.

1st February.—There are always natives in Interview Passage, but the launch should be stopped there with care. The south entrance has much foul ground about. There are two camps in Kwangtung Harbour: one on the north entrance to the harbour and one further in towards Homfray Strait.

2nd February.—The western entrance to Homfray Strait is not easy and the tides are very strong. There is a camp half way on the northern side. The eastern entrance is very shallow at low tides. The anchorage in Elphinstone Harbour is at the point marked 10 f. in the charts. North Button Island gives a safe straight run out from the anchorage.

3rd February.—There is a bad rock in the creek leading to Colebrooke Passage about half way.

13. The Work to be done Daily.

The following is a sketch of the work to be performed daily during Tour I.

25th January.—The *Elphinstone* will start for Colebroke Passage direct so as to reach about noon. The *Bess* will start at 4 A.M., so as to reach Kyd Island at 7 A.M., remain five hours and start again at noon, reaching Colebrooke Passage at 3 P.M. Messrs. Man and D'Oyly will embark on the *Bess* and Captain Anderson on the *Elphinstone*. Enquiries will be

made at the Duratang Home on Kyd Island by Messrs. Man and D'Oyly and at the camp in Colebrooke Passage by Captain Anderson. The steam gig of the *Elphinstone* will be required in Colebrooke Passage.

26th January.—The *Elphinstone* will start for Outram Harbour direct so as to reach at noon. The *Bess* will start at 6 A.M. for Tadma Juru Strait between Peel and Havelock Islands and then pass through the Kwangtung Strait so as to finally reach Outram Harbour about 4 P.M. This should give about 4½ hours for enquiries at the camp in the Tadma Juru Strait and Kwangtung Strait. Messrs. Man and D'Oyly will be in the *Bess* and Captain Anderson in the *Elphinstone*. Captain Anderson will make the enquiries at the camp in Outram Harbour.

27th January.—The *Bess* will leave at 5 A.M. so as to arrive in Stewart Sound by 11 A.M. to be followed by the *Elphinstone* timed to arrive at the same hour. All the Census officers will travel in the *Elphinstone*. Arrived at Stewart Sound, the various points in the Harbour itself will be examined and also the camp in Austin Strait. Captain Anderson will examine Austin Strait and Messrs. Man and D Oyly, Stewart Sound. The steam gig of the *Elphinstone* will be required for this service.

28th January.—The *Bess* will proceed in the early morning to Lamia Bay and the *Elphinstone* to Port Cornwallis: Captain Anderson in the *Elphinstone*, Messrs. Man and D'Oyly in the *Bess*. Enquiries will be made at Lamia Bay and in the Harbour of Port Cornwallis. The *Bess* should reach Port Cornwallis so as to have at least one hour's daylight there after anchoring. The steam gig will be required.

29th January.—The *Bess* will proceed at 5 A.M. to Temple Island *viâ* the Turtle Island anchorage with Messrs. Man and D'Oyly, who will enquire at the camp in the Creek behind Temple Island, and will then proceed to Cadell Bay and enquire there also and finally proceed to the anchorage between Landfall and East Islands so as to have an hour's daylight there. This arrangement should give about three hours each to Temple Island and Cadell Bay for enquiries. Captain Anderson will proceed in the *Elphinstone* to the East Island anchorage direct, and enquire there.

30th January.—The run to Temple Sound *viâ* Cleugh Passage is only 18m. Mr. D'Oyly will proceed in the *Elphinstone* to Temple Sound direct and enquire at Paget Island and Mr. Man and Captain Anderson in the *Bess* so as to take the various points of enquiry on the coast west of Cleugh Passage, starting at about 9 A.M. and reaching Temple Sound before dark. The steam gig will be required in Temple Sound.

31st January.—The *Elphinstone* will proceed direct to North Reef Island with Mr. D'Oyly and the *Bess viâ* Casuarina Bay with Mr. Man and Captain Anderson. A start at 7 A.M. should give about four hours at Casuarina Bay for enquiries and an hour's daylight at North Reef Island. Mr. D'Oyly will enquire at North Reef Island. The steam gig will be required.

1st February.—The *Elphinstone* will proceed direct to Kwangtung Harbour so as to arrive in the evening. The *Bess* will proceed *viâ* Interview Passage making enquiries *en route*. All the Census officers will proceed in the *Bess* so as to arrive at Kwangtung Harbour in the evening.

2nd February.—The *Elphinstone* will proceed to Calcutta, arriving there on the 5th. The *Bess* will start at about 10 A.M. for Elphinstone Harbour *viâ* Homfray Strait, which will allow about four hours for enquiries in Kwangtung Harbour in the morning and five hours in the evening at Elphinstone Harbour.

3rd February.—The *Bess* should start early for Port Blair *viâ* the inland passage to Colebrooke Passage so as to arrive in the evening at Port Blair, enquiring *en route* as far as Colebrooke Passage.

Tour II.

14. The steam launches *Bess* and *Belle* will leave Port Blair on the 11th February 1901.

15. PROGRAMME OF TOUR II.

11th February.—		Port Blair to Bumila Creek in Little Andaman. 57m. 8 hrs.
12th	„	Port Campbell 69m. 9 hrs.
13th	„	Kwangtung Harbour. 24m. 3½ hrs.
14th	„	Kyd Island *viâ* Middle Strait. 23m. 3 hrs.
15th	„	Port Blair. 19m. 3 hrs.

Total for the tour: five days—about 194m., in about 27 hrs. under steam at about seven knots.

16. NOTES AS TO NAVIGATION FOR CENSUS OFFICERS DURING TOUR II.

11th February.—After passing the Cinque Islands, the ground is foul and requires care. Entrance to Bumila Creek is bad.

12th February.—It is best to run up past the Sisters, through Elphinstone Passage in the Labyrinth Islands: a straight easy run and then keep inside the Allen Patches to Port Campbell. The entrance has to be carefully watched, as the points on the old chart (the only one available) do not out in.

13th February.—In going through Middle Strait note that there are several dangerous rocks towards the south end of Kwangtung Harbour, which have to be looked for. There is a bad bar about three-fourths through the Strait itself and the east entrance has a very shallow bar at low tide. There is a camp near the western entrance.

17. Work to be done during Tour II.

The following is a sketch of the work to be performed during Tour II.

11th February.—Start at 4 A.M., reach Bumila Creek at noon. This leaves six hours for enquiries there.

12th February.—Start at 6 A.M., reach Port Campbell at 3 P.M. This leaves three hours' daylight for enquiries.

13th February.—Start at 10 A.M. This gives four hours at Port Campbell in the morning and 4½ hours' daylight at Kwangtung Harbour to verify the information gathered during the first tour.

14th February.—Start at 8 A.M. This will allow of two hours' work at Kwangtung Harbour, three hours in the Strait, and 3½ hours' daylight at Kyd Island.

15th February.—Leave for Port Blair.

APPENDIX B.

REPORTS ON CENSUS TOURS.

First Tour.

Diary of Mr. E. H. Man, C.I.E., Deputy Superintendent, Port Blair, on the first tour round the Andaman Islands on Census duty from 25th January to 2nd February 1901.

With reference to the instructions regarding the Census to be taken of the Andamanese, I have the honour to submit the following report and returns furnishing the result of the two tours which have been made by the Census party :—

25th January 1901.—Having embarked with Mr. D'Oyly, Police escort and Andamanese on board the steam launch *Bess* at 9-30 P.M. yesterday, we left this harbour at 4 A.M. Proceeding northwards we reached Dura-tang (Kyd Island) at 7 A.M. Landed and took note of aborigines living at the Home; found them to number 23, of whom three-fourths were natives of North Andaman. After directing the petty officer of the Home to send to Haddo hospital two women who were found in need of treatment, left at 11 A.M. for Colebrooke Island. The bay on the south coast of that island was reached at 2 P.M. On landing at Par-lon-ta in the centre of the bay one fine large hut and several small lean-to's were found unoccupied, the natives having evidently gone elsewhere some days before our visit. On leaving this place the launch next proceeded to the southern entrance to Colebrooke Passage where she anchored soon after the *Elphinstone,* which had meantime arrived direct from Port Blair bringing the Chief Commissioner and Captain Anderson, I.M.S. In the afternoon all three Census officers (*viz.*, Captain Anderson, Mr. D'Oyly and myself) visited the northern coast of Colebrooke Island through the passage in the steam pinnace in order to ascertain whether any natives were encamped in the vicinity. On landing at Tara-chulnga, found that it had been recently occupied by the trepang-collecting file. No other traces of aborigines could be discovered. The natives belonging to this coast, who had accompanied us from Port Blair, informed us that owing to the Jarawas from the vicinity of Port Campbell having in recent years invaded Baratang, that large island, which comprises the bulk of the territory belonging to the Bojigyab Tribe, has been practically abandoned by our "friendlies."

26th January 1901.—Left in the *Bess* at 6 A.M. for the Archipelago. Arriving off north-west of Havelock Island found Pulu-lun-ta deserted. On proceeding for Tadma Juru found the reef off north extremity of Havelock Island extends farther than is noted on the chart. On arriving near the encampment in Tadma Juru, ascertained that it is called Womaleptu (not Maïi-leptu). It was found to be unoccupied. In rounding the south coast of John Lawrence Island it was found that the reef there has to be given a wide berth. Before entering Kwangtung Strait, the *Bess* was anchored opposite the spot where the *Runnymede* and *Briton* were wrecked in the cyclone of 1844. The site was visited and an anchor and some angle-iron were found imbedded in the mud of a mangrove swamp.

Proceeding at 1-30 P.M. through Kwangtung Strait the whistle was sounded when near the solitary camping-ground (Gereng lebar), but there was no sign of life among the huts. At 3-30 P.M. we reached Outram Harbour where the *Elphinstone* had already arrived. No natives were found by the landing-party, and judging from the information subsequently received it is not improbable that the entire Archipelago was uninhabited at the time of our visit.

27th January 1901.—The *Bess* left with Mr. Bonig at 5 A.M., followed at 6 A.M. by the *Elphinstone* in which all three Census officers travelled to Bacon Bay. Mr. D'Oyly and I went in the *Bess* to take the Census of those visiting the harbour and Stewart Sound and its vicinity while Captain Anderson visited Austin Strait for the same purpose.

At Lautiche (Camp Bay) 43 Andamanese were found with the trepang-collecting file, and we were informed by the petty officer in charge of the latter that about 50 others (about 20 men, 20 women and 10 children) had left a few days before in the direction of Pembroke Bay on the west coast. Although we were assured by the party there that there were no other natives in the vicinity except those already seen by us, we proceeded to near Cadell Point, satisfying ourselves by frequently sounding the steam whistle that there were no signs of life on shore. It was ascertained from those accompanying us that Meopong is not a camping-ground, as hitherto assumed, but is applied to the area north and north-west of Cadell Point to a distance of about three miles. The *Bess* returned to Bacon Bay before dusk. Captain Anderson came across only eight natives during the afternoon.

28th January 1901.—Starting at 5-30 A.M. in the *Bess* proceeded northwards to Lamia Bay. Landed and found ten aborigines, most of them in a sickly or diseased condition. They informed us that there were no others nearer than Port Cornwallis. On proceeding northwards we found no signs of life even till after we had anchored off Chatham Island in Port Cornwallis, and then only five Andamanese appeared after repeated whistles had been sounded. These were followed by seven others during the afternoon. As we then learnt that certain parties were in the jungle to the westward, Snowball, one of the most active and intelligent

of our party, undertook to go and induce them to meet us at Casuarina Bay on the west coast two or three days later. The *Elphinstone* arrived in the afternoon soon after the *Bess*. The site of Blair's Settlement of 1793-96 on Chatham Island was visited.

29th January 1901.—Left at 5-30 A.M. Visited Turtle Island and Cadell Bay, but found no signs of life. The explanation given by those accompanying us was that at this season the west coast is preferred as affording more shelter. Finding every camping-ground deserted we proceeded northwards for Landfall Island going between Pocock Island and the mainland. While doing this a 2½ fathom shoal was discovered between two lines of much deeper soundings.

In consequence of our stopping over this patch the patent log was cut by a rock and was lost in spite of careful attempts to recover it. At 0-30 P.M. we reached the anchorage between East Island and Landfall Island, the *Elphinstone* having arrived there shortly before us.

30th January 1901.—Left at 5-30 A.M., accompanied by Captain Anderson in place of Mr. D'Oyly. Visited in succession West Island, Whitecliff Island, Thornhill Island and Reef Island without discovering any signs of life. While steaming near the coast opposite the last-named island, two canoes came off containing two men and three women.

Landed at their encampment, which is called Ti-kaw-dung where the entire party was found to consist of three men, three women and three children. Thence proceeded to Paget Island, near which the *Elphinstone* had already anchored. Found that Snowball had brought a number of men, women and children, so that 51 were present at the time of our visit, and 32 others were reported as counted but unable to come in time from the mainland.

31st January 1901.—Left at 6 A.M. in the *Bess* with Captain Anderson and visited Casuarina Bay. Found that the encampment near the north-east corner of the bay had been vacated some time since, and the steam-whistle failed to attract any natives, from which it is certain that there were none in that vicinity at the time. Snowball informed us that owing to a recent death the encampment on the south side of the bay had been abandoned. The *Bess* next steamed to Pembroke Bay, at the southern point of which is situated an encampment known as Ina-tara-jole where one of the trepang-collecting files is at present employed. Both this station and Camp Bay (Lautiche) are too distant from head-quarters, the excuse given for selecting these sites being the abundance of *béche-de-mer* obtainable in their vicinity. Directions have been given to select localities within 30 miles of Port Blair. Twenty aborigines were found at Ina-tara-jole and six others were reported as having gone to North Reef Island where they were seen and enumerated by Mr. D'Oyly.

The *Bess* concluded the day's run by going to the anchorage near North Reef Island where the *Elphinstone* had arrived two or three hours earlier.

1st February 1901.—Left at 6 A.M. in the *Bess* with Captain Anderson and Mr. D'Oyly for Kwangtung (or Anson) Harbour. In proceeding through Interview Passage we met four canoes. It was found that most of the natives in them had already been seen and enumerated at Bacon Bay. We landed at the bay near the southern extremity of Interview Island where there is an encampment called Renge-lun-taw where 19 were enumerated. As time would not permit us to ascertain whether there were any aborigines along the west coast of Middle Andaman, it was decided to postpone the Census of that locality till the second tour. The *Bess* accordingly proceeded direct to Kwangtung Harbour, where the *Elphinstone* had already been anchored some time before our arrival. While she was supplying water to the *Bess* and transferring some police aborigines and a boat for return to Port Blair, a visit was paid to Lekera-lon-ta where 14 aborigines were found and notes taken of those in the neighbouring encampments. The information thus procured was subsequently found to be quite correct, showing how well each individual of the few remaining communities can be recalled by his friends. Two of our Andamanese were left here for the purpose of collecting all south of Austin Strait who had not yet been enumerated, so that they may be included in the Census return of the second tour. Presents were distributed here as at all previous halting-places.

2nd February 1901.—At 6 A.M. the *Elphinstone* left for Calcutta and the *Bess* for Port Blair. In passing out of Homfray Strait the launch ran on to a shallow patch of soft coral. As the tide was fortunately rising, she got off in less than an hour and, without further incident, reached Port Blair at about 2 P.M. This concluded the first tour.

Diary of Captain A. R. S. Anderson, I.M.S., Senior Medical Officer, Port Blair, on the first tour round the Andaman Islands on Census duty from the 25th January to 2nd February 1901.

25th January 1901.—Embarked on the *Elphinstone* at 10-45 A.M., and forthwith proceeded to the anchorage off Colebrooke Island, which we reached about 3 P.M. At once left in steam-cutter with boat in tow, examined Colebrooke Passage and, at the north entrance to the Passage, visited an Andamanese village Tara-chulnga-da which we found had been deserted the previous day. Fresh remains of turtle and pig and fresh ashes were strewn on the ground. Probably some 20 people had been in the hamlet but are said by our Andamanese to have gone to Homfray Strait.

26th January 1901.—In the morning before breakfast, landed and collected on reef to south of Colebrooke Passage but found nothing of particular interest. After breakfast, weighed anchor and proceeded to Outram Island dropping anchor in the bay on the north side of the island at 12-30 P.M. Landed at once in small sandy cove on east side of bay, where I found

the site of an old camp under some magnificent trees. The site of this camp is named Chauga-l'ot-yawto. Then visited a village at south end of bay which was also deserted, probably a year or so ago. It consisted of five huts, one fairly large capable of accommodating from 10 to 15 people, the others much smaller. The huts, shaped like Cabul tents, are constructed of a framework of cut straight branches of trees, and these are overlaid with cycad fronds. Water is obtained from a shallow well, now dried up, in a *nala* running by the side of the village. Got a few *Carpophaga ænea* but found them very thin and much wilder than their Nicobarese allies. Also collected some lizards, the little known Andaman skink among others.

27th January 1901.—Reached Stewart Sound about 11-30 and at 12-30 started in steam-cutter to visit Austin Strait. On the unnamed island opposite Oyster Point, found a small encampment of three men, three women and two boys. Of these one child was suffering from slightly enlarged spleen, one woman the same, another woman from a white scar on one eye, the remains of an old ulcer and one of the men from itch. Of these three women, one had given birth to one, now grown up, son, another had two children and the third, now a young widow, had one child. They informed me that there is little sickness but that children are very seldom born. In proceeding along Austin Strait we found a small deserted village on the south side of the Strait immediately east of a narrow creek running southwards and about half-way along the Strait. The Andamanese are said to occupy this village in the south-west monsoon.

28th January 1901.—Reached Port Cornwallis soon after midday, but although we repeatedly sounded our whistle, we saw no signs of Andamanese on the northern shore or the southern shore near the entrance. A few, however, put off from the western and southern sides of the harbour and were enumerated on the *Bess* which had reached the anchorage before us. In the steam-cutter we skirted along the northern shore but found no inhabitants, only a deserted village. Mr. Man despatched some of our Andamanese to go across country, collecting the inhabitants on the way, and meet us in Casuarina Bay on the west coast on the 31st.

29th January 1901.—Landed for a couple of hours before breakfast on Chatham Island. Found large lumps of bricks held together by mortar lying on the shore, which, from their appearance, had evidently formed part of a pier or sea-wall. Embedded under some inches of soil, just beyond the beach, was an old flooring of large tiles and, on cutting through the cane and low jungle and penetrating inland, the evidences of our former occupation became very obvious; bricks and tiles were scattered about in every direction. Ascending a low hill of some 60—80 feet the remains of a house were found; the walls, built of sandstone blocks, about 18″ thick, were still standing upright, having formed part of an oblong room about 12′ × 20′. One of the windows, surmounted by a heavy coping stone, was even visible although the coping stone had fallen slightly. Alongside this room was a great heap of stones and bricks evidently the materials of a fallen building. The ground slightly below this building appears to have been levelled and covered with large red tiles, laid on a bed of coral mortar; but now trees, some of them no less than 3 feet in diameter, 4 feet above the soil level, have burst through this flooring and are speedily obliterating it. Proceeding north we arrived at the East Island anchorage, dropped anchor, sounded our whistle, but although the remains of the village on Landfall Island were still visible from the ship, the inhabitants had gone. In the afternoon landed and walked to the brackish water *jhil* on the north-east corner of East Island. The *jhil* we found almost dry and only one couple of oceanic teal on it. The *jhil* on the south-western extremity of the Island was also found by another exploring party to be dry. The Marine Survey mark on the beach was in good position and order.

30th January 1901.—Transhipped from *Elphinstone* into *Bess* after dinner last night and this morning in company with Mr. Man proceeded at daylight from the East Island anchorage westwards through Cleugh Passage. Made for West Island where two years before I had met many Andamanese; but although we steered close in shore, sounding the whistle frequently, we saw no inhabitants. A similar procedure with regard to Whitecliff and Thornhill Islands and the western end of Cleugh Passage produced a like result. Reef Island was also found deserted, but on the south-east extremity of Paget Island we found a large Andamanese encampment where I found it two years before. The people were enumerated and mostly recognised by me from photographs taken two and three years ago. The Andamanese, collected by the men despatched on the 28th from Port Cornwallis, were found assembled here and duly counted.

31st January 1901.—Left at daylight, went into Casuarina Bay and anchored; landed in the dinghy after rowing up the creek flowing into north-east corner of the bay, but found the large camp, although the huts were in good order, deserted. Returned to the *Bess*, hove up anchor after breakfasting and sounding the whistle as we went, and proceeded out of the bay which seemed quite deserted. With some trouble on account of the reef stretching across the entrance, found our way into Pembroke Bay and on the southern side near the entrance found some Andamanese helping the trepang file from Port Blair. Having made a Census of the people we quitted the bay, and after a rather stormy passage dropped anchor under the shelter of North Reef Island where we found Mr. D'Oyly had made the Census of the inhabitants.

1st February 1901.—Started in *Bess* at daylight and proceeded south, steaming between Interview Island and the mainland. On the southern extremity of Interview Island landed and found an Andamanese camp, the inhabitants of which we enumerated. In this camp I found one of the men I had photographed two years before on Paget Island and the people

recognised all the others whose photographs I showed them, although they lived so far off as East Island. Proceeded to Port Anson where we found an Andamanese camp near the northern entrance to the port. Landed, counted the people and left some of our Haddo Andamanese ashore, with instructions to collect all the inhabitants of the west coast between Interview Island and Port Anson and those living in Homfray Strait and around Port Anson so that we might enumerate them on our next tour.

2nd February 1901.—Left at daylight, steamed through Homfray Strait, stuck for about half an hour on a shoal between North Passage Island and Baratang Island, then proceeded on our way through Colebrooke Passage, after quitting which we had a straight run for Port Blair which was reached about 2 P.M.

Diary of Mr. H. H. D'Oyly, Third Assistant Superintendent, on the first tour round the Andaman Islands for Census work, between the 25th January to 3rd February 1901.

25th January 1901.—Left Port Blair at 4 A.M. in the steam launch *Bess* with Mr. E. H. Man, C.I.E., and Mr. Bonig, Assistant Harbour Master, and arrived off Duratang in Kyd Island at 7 A.M. Landed with Mr. Man at the Andamanese Home and obtained all the necessary information, which will be found in the Census forms to be submitted to the Chief Commissioner at the conclusion of the Census. Left Kyd Island at 11 A.M. for Colebrooke Island arriving there and anchoring in the Southern Bay off Par-l'on-ta at 2 P.M. Visited the camp, which had a very fine large hut, but was deserted, though quite recently from all signs. Mention was omitted above of the fact that at the Home on Kyd Island, two women were found suffering from syphilis. They were ordered to be sent at once to the hospital at Haddo. It was remarkable how few children were found there, seven married couples being without any, and of the seven children noted, all but one being nearly grown up. Left Par-l'on-ta and anchored in the mouth of Colebrooke Passage at 3-20 P.M. at the same time as the R. I. M. S. *Elphinstone* which had come direct from Port Blair with Colonel Temple, C.I.E., and Captain Anderson, I.M.S., on board. Mr. Man and myself visited the *Elphinstone* and then proceeded with Captain Anderson in the ship's steam pinnace up Colebrooke Passage to make enquiries at the camps on each side. Both that on Baratang Island named Awropa-Chulnga to the south, and that on Colebrooke Island called Tara-Chulnga to the north were deserted; but there were signs at the last named of a recent visit by the trepang-collecting party from Port Blair, as shown by the places made for boiling the trepang. Both the *Elphinstone* and *Bess* remained at the anchorage in Colebrooke Passage for the night.

26th January 1901.—Started at 6 A.M. in the *Bess* proceeding first to Pulu-lun-ta on the west coast of Havelock Island. Finding the camp deserted, went on through the Tadma Juru Strait, between Peel and Havelock Islands. The navigation at the west entrance of the Strait requires care. The reef at the northern point of Havelock Island extends much farther than shown on any previous chart. Care has to be taken also in passing out of the Strait to clear the reef which runs out a long way to the south of John Lawrence Island. No signs were discovered of the "Pilot Rock (1844)" marked in the charts. No Andamanese were found at Woma-leptu on the north-east coast of Havelock Island. Anchored in the mouth of Kwangtung Strait off John Lawrence Island, opposite Wreck Point, and went ashore with Mr. Man and Mr. Bonig to see the place where the *Runnymede* and *Briton* were wrecked together in 1844. Found the anchor and pieces of angle iron, no doubt belonging to the *Runnymede*, lying among the roots of some mangroves at the mouth of the creek, where this vessel was cast ashore in the cyclone. Went on through Kwangtung Strait, finding the camp on Henry Lawrence Island, in the middle of the Strait, deserted. Arrived at 3-30 P.M. in the harbour north of Outram Island, where the *Elphinstone* was already anchored, and remained there for the night.

27th January 1901.—Mr. Man and myself went on board the *Elphinstone* and travelled in her from Outram Harbour, which we left at 6 A.M. and arrived at the anchorage in Bacon Bay, Stewart Sound, at 11-30 A.M., where the *Bess*, preceding us, had already arrived. Mr. Man and I went on board the *Bess* and after taking the names of some Andamanese who came off shore in canoes, started to visit the various points in the Harbour. At Lautiche in the north of the Sound was a large camp containing 93 people, including women and children. The scarcity of children was again remarkable, there being only 19. The people were not in good condition, almost all suffering from skin disease, and many from syphilis. One or two cocoanut trees were observed at the camp. It would be a good thing to send out seedlings of cocoanut and plantain trees to be put down at all camps, whenever the parties, for collecting trepang and edible birds' nests, go out. The seedlings, however, should be fairly well grown, otherwise if there is anything edible about the nuts, they would undoubtedly be consumed at once by such thriftless people as the Andamanese. Next we proceeded to the northern entrance to Stewart Sound, where there is a district called Meopong. Stood off and whistled but found no signs of life; and the coast being rocky, we did not land. On the way back through the entrance to the sound went slow, for Mr. Bonig to take soundings and enter them in a private chart. Arrived back in Bacon Bay and anchored close to the *Elphinstone* at about 5-30 P.M.

28th January 1901.—Mr. Man and myself left Bacon Bay in the *Bess* at 5-30 A.M. proceeding inside Sound Island and out through the northern entrance. Anchored in Lamia Bay, opposite to Saddle Peak, and visited a camp there of ten people. Some of them had bad syphilitic sores. The pathway, cut three years ago from this point to the top of Saddle Peak, is not very clearly discernible now, owing to thick undergrowth that has come up since. The

beacon which was then placed on the shore to mark the entrance to the pathway has disappeared. Went on to Port Cornwallis and anchored off Chatham Island at 12-30 P.M. Two canoes came off with eight people, who said there were no more people near the shores of the harbour, the others being away in the jungles of the interior. The *Elphinstone* came to the anchorage about an hour later. We landed on Chatham Island to see the site of the old settlement of 1793-96. The only signs remaining were pieces of brickwork masonry along the shore, showing that the sea must have been encroaching on the land into the foundations of the old houses. I took away, as a memento, some bricks, which were in remarkably good preservation. Mr. Man sent Snowball, one of the Andamanese who accompanied us from Port Blair and who was a native of these parts, to collect the people, in the interior and take them across the North Andaman to Casuarina Bay on the West Coast, ready for the visit of the *Bess* there on the 31st January.

29th January 1901.—Mr. Man and I left at 5-30 A.M. in the *Bess* going inside Turtle Island to cruise behind Temple Island, where there was a camp, which we found deserted. Then proceeded to Cadell Bay, between Trilby Island and the mainland. Found the camp there also deserted. Went on Inside Pocock Island, between that and the mainland losing the launch's patent log, which was caught in a rocky shoal, not marked in the chart. Anchored near this spot to try and recover the log, and for Mr. Bonig to take soundings and locate the shoal, which was found to be a small one lying between two lines of soundings in the chart, with a minimum depth of 3 fathoms. The log was not recovered. Some huts were seen on Pocock Island, but no inhabitants. Proceeded to the anchorage between Landfall and East Islands, where the *Elphinstone* had already arrived and dropped anchor at 12-30 P.M. In the evening I left the *Bess* for the *Elphinstone*, changing places with Captain Anderson.

30th January 1901.—Started at 8 A.M. in the *Elphinstone* and went direct to Temple Sound *viâ* Cleugh Passage, reaching the anchorage between Paget and Point Islands at 11-30 A.M., went off with Lieutenant Gray in the steam gig to make enquiries on Paget Island, where a large camp of 74 people were found, though 40 of them were away on the mainland, and 20 on Point Island. Five canoes put off from the mainland to us, bringing Snowball with the people he had collected in the interior, according to Mr. Man's instructions given on the 28th instant at Port Cornwallis. The *Bess* came in and anchored near us at 2 P.M.

31st January 1901.—Started at 8 A.M. in the *Elphinstone* from Temple Sound and went direct to North Reef Island, where we arrived at 11-30 A.M. Landed at Teb Juro village on the east coast and took the Census. There were only 13 people, who had been in the place for a month, and meant to leave directly they had finished a boat that was being built. There is a large fresh water lagoon close to this shore, where three of the ship's officers got 30 couple of teal in the afternoon. The *Bess* with Mr. Man and Captain Anderson on board came in and anchored near us at 4 P.M., having visited Casuarina Bay on the mainland on their way. I went over to the *Bess* in the evening.

1st February 1901.—Left at 6 A.M. in the *Bess* with Mr. Man and Captain Anderson, going along the east coast of Interview Island between that and Boudeville Island, from which two canoes came off with some people, who had already been seen at Bacon Bay. Proceeded round the south point of Interview Island to a camp in a deep bay protected from the south-west by a reef some distance out, with fairly deep water inside. Landed with Mr. Man and Captain Anderson to take the Census. Then went on down the west coast of Middle Andaman to Port Anson at the entrance to Homfray Strait, where we anchored near the *Elphinstone*, which had arrived before us. Visited a village near the entrance to the harbour. The *Bess* took in a fresh supply of water from the *Elphinstone* and also took over from her two settlement boats, with their convict crews and the police guard.

2nd February 1901.—Started at 5-30 A.M. with Mr. Man and Captain Anderson in the *Bess* taking in tow the two settlement boats, previously carried by the *Elphinstone*; and went through Homfray Strait, obtaining all information about the population *en route*. While passing through Elphinstone Harbour between Homfray Strait and Colebrooke Passage, the *Bess* went aground on a shoal, which was not marked on the private chart of this route, that was being used by Mr. Bonig. No apparent damage was done to the launch, the shoal being luckily of sand and soft coral. It was nearly an hour before we got free. Then we went through Colebrooke Passage and direct to Port Blair, where we arrived at 2 P.M.

Diary of Lieutenant N. F. J. Wilson, Commanding R. I. M. S. "Elphinstone" *on a tour round the Andaman Islands on Census duty from 25th January to 2nd February 1901.*

25th January 1901.—The second trip with the Census party commenced. The members were as before, but owing to the many small bays and narrow channels to be visited a steam launch accompanied the *Elphinstone*. The usual routine was for the launch *Bess* to steam up the coast, whilst the ship went direct by sea to the day's destination.

Leaving Port Blair at 11 A.M. we anchored in Colebrooke Passage anchorage at 3 P.M. The *Bess* had already arrived. This snug little harbour has been well described by Commander Simpson and there is nothing to add to his remarks. Entering in the afternoon we found that the two reefs at the entrance were difficult to make out. The Census party went up the passage towed by the ship's steam cutter, but were unsuccessful, the only huts seen being deserted. The reef, at the entrance, however, was a grand hunting ground for marine specimens and the Andamanese did great execution there amongst the fish.

26th January 1901.—The *Bess* left at daylight to explore between the islands, whilst the *Elphinstone* proceeded at 10 A.M. for Outram Harbour direct, a two hours' run at easy speed. Nothing was found at Outram and the *Bess* arriving at 3-30 P.M. told the same tale. The natives were conspicuous by their absence. Remained in Outram Bay till following morning.

27th January 1901.—Both ship and launch left early for Stewart Sound and arrived about noon anchoring in Bacon Bay. Some natives were found at last! Captain Anderson went up Austin Strait in the ship's steam cutter, but very few people were found. Mr. Man searched the harbour and surroundings in the *Bess*. On the whole the Census was a failure here, there being hardly any one to count, but it was interesting to visit this fine harbour. Lay here all night.

28th January 1901.—A notable day this, for the *Elphinstone* nearly came to grief again on an unknown patch. We left Bacon Bay at 8 A.M. and proceeded up the Sound and steamed out through the northern entrance passing between the rocks known as A. and B. patches. After leaving these known dangers behind us and whilst steering to sea to obtain an offing before steering up the coast, we ran over a shoal patch which lies 2¼ miles N. 57° E. of Oliver Island. We passed over 6 fathoms, but as the colour of the water showed that there were shoaler bits, the ship turned round and steamed towards the shoal. At 14 feet it was time to stop and fix the position of the patch. This is a dangerous shoal lying right in the northern channel into Stewart Sound. Strange it had not been found before. Proceeded up the coast and at noon arrived at Cornwallis Harbour. This fine harbour did not produce many natives either; they were all said to be on the west coast. We lay here all night in spite of the evil reputation of the place and no one seemed any the worse for it.

29th January 1901.—At 8 A.M. left Cornwallis Harbour, the *Bess* preceding us by a couple of hours; she visited Cadell Bay and the coast and the *Elphinstone* taking the passage outside the Table Islands and inside Union Sledge, met her off Pocock Island. There the *Bess* was at anchor on another shoal patch not shown on the chart. This lies between Pocock Island and the mainland and has 2 fathoms on it, but nothing is likely to use this narrow gut, except a launch or small boat now and then. We anchored in the channel between East and Landfall Islands and found it a very snug little anchorage for all but south-east winds. A splendid north-east monsoon blew here, making the weather cool and pleasant. An expedition to a lagoon on the north-east end of East Island only produced one oceanic teal, as the lagoon was almost dry. The Andamanese, however, managed to get a lot of fish and a big lizard, which was ugly enough to put most of us off. These natives are excellent men for such expeditions. They are smart and keen and work well. Pulling ashore and then walking about 5 miles in a hot sun and then pulling back, did not seem to damp their ardour in the slightest; on board, too, they are much cleaner and give less trouble to the ship than other natives.

30th January 1901.—Left at 8 A.M. for Temple Sound *viâ* Cleugh Passage and the channel between West Cliff and Reef Island. The ground is all recently surveyed, which makes this passage much easier and safer than hitherto, but it is not a channel to use, except in fine weather. The *Bess* left earlier, searching the coast and bays. Arrived at Temple Sound at noon, the *Bess* anchoring a little later. A few natives were here and the Census people were also able to get particulars of others in the jungle. A shooting party got five couple of oceanic teal on Point Island, off a very small lagoon on the north coast of this island.

31st January 1901.—The *Elphinstone* left at 8, the *Bess*, as usual, earlier, searching the coast line. We steamed down inside Snark Island and as at this point the survey ceases, the speed was reduced and course and soundings were carefully laid down on a track chart for future use. Anchored off Reef Island about noon, close into the shore; the soundings on the Marine chart are totally misleading, as we could find no anchorage in less than 17 fathoms until close to the beach, whereas the chart shows 7 and 8 some way out. Census operations were not very successful as usual. But the shooting party came across a long lagoon on Reef Island, with any amount of oceanic teal on it; snipe were seen too, and there are quantities of the Nicobar pigeon here. Twenty-eight couple of teal were shot and were found excellent for the table. This lagoon runs nearly the whole length of Reef Island about 100 yards from the eastern shore; it is very narrow and surrounded by thick jungle, and the birds flew up and down the strip of water offering very pretty shooting.

1st February 1901.—Left Reef Island in company with the *Bess* at 6 A.M. The latter took the passage between Interview Island, whilst the ship, going slowly as before, passed between Reef and Interview Island. This is a fine and broad channel and the marine chart is again at fault. The *Elphinstone* passed quite near the north coast of Interview Island although an extensive reef is shown as existing here. The track followed is shown on accompanying chart. After getting out of this channel steered to the southward for Port Anson where the ship anchored at noon; the *Bess* came in later, and as we part company here, we gave her fresh water and our native passengers.

2nd February 1901.—At daylight the *Bess* and her satellites moved off for Homfray Straits, whilst the *Elphinstone* took her departure for Calcutta, arriving there on the 4th February.

Diary of Mr. Bonig, Assistant Harbour Master, on the first tour round the Andaman Islands on Census duty from the 25th January to 2nd February 1901.

25th January 1901.—Left Port Blair at 4 A.M. with E. H. Man, Esq., C.I.E., and party in the steam launch *Bess*; arrived Kyd Island at 7 A.M. Messrs. Man and D'Oyly went

ashore and took Census. Left Kyd Island 11 A.M. for Colebrooke Passage. Anchored in the Bay to the south of Colebrooke Island, off the encampment Par-l'on-ta. Went ashore with Mr. Man and party; no Andamanese were seen here. Returned on board and steamed to the anchorage in Colebrooke Passage arriving there at 3-20 P.M. The R. I. M. S. *Elphinstone* arrived at the same time direct from Port Blair. Went aboard the *Elphinstone* and accompanied Mr. Man and party in the *Elphinstone* cutter through Colebrooke Passage.

26th January 1901.—Left Colebrooke Passage anchorage at 5-40 A.M. for the Archipelago, arriving off Pulu-lun-ta at 7-45 A.M. No Andamanese were seen here. After this steamed through Tadma Juru. I observed that the reef to the north of Havelock Island when entering Tadma Juru from the west extends considerably further to the north than it is marked on the chart; the channel is well over to Sir William Peel Island. Returned through Kwangtung Strait and anchored at 11 A.M. off the coast where the *Briton* and *Runnymede* were wrecked. Only one anchor and the remains of a few iron knees were seen. Returned on board and proceeded for Outram Harbour. There is a reef opposite Gareng-lebor, which is not marked on the chart. The channel is to the north of the reef close to the shore off Henry Lawrence. I arrived at Outram Harbour at 3-30 P.M. Went ashore on the east side of the Bay; saw a number of cocoanuts, part of a Burmese canoe and some wreckage strewn about on the beach. Remained at Outram Harbour for the night.

27th January 1901.—Proceeded at 5-10 A.M. to Stewart Sound. Messrs. Man and D'Oyly travelling in the *Elphinstone*. Arrived at Bacon Bay at 10-30 A.M. The *Elphinstone* arriving about an hour later Messrs. Man and D'Oyly came on board the *Bess*. We proceeded to Camp Bay where Census was taken. After this proceeded through the northern entrance of Stewart Sound to Eileen Bay; no Andamanese were seen, a number of soundings were taken which are recorded in the accompanying chart of Stewart Sound. I also noted that the rocks off Cadell Point are not noted in G. T. S. Maps, but are shown in Commander Bacon's chart. Returned to Bacon Bay in the evening and anchored for the night.

28th January 1901.—Started for Lamia Bay 5-30 A.M. and steamed through the northern entrance of Stewart Sound. Commander Wilson advised me that the safest passage in leaving Stewart Sound was between the rocks A. and B.; this passage was accordingly taken, not less than 5 fathoms of water was obtained between the rocks. Anchored at Lamia Bay at 8-40 A.M. and accompanied Messrs. Man and D'Oyly ashore who took the Census of the Andamanese that were seen here. Returned on board and left at 11 A.M. for Port Cornwallis. Anchored off Chatham Island at 12-30 A.M. Went ashore with Messrs. Man and D'Oyly to see the remains of the old settlement; only a few blocks of bricks were seen strewn about on the beach. Returned on board and anchored at 3-30 near the *Elphinstone* which had in the meantime arrived from Bacon Bay.

29th January 1901.—Left Port Cornwallis at 5-50 A.M. and steamed *viâ* Temple Island anchorage and Cadell Bay to East Island. No Andamanese were seen *en route*. On steaming between the mainland and Pocock Island, the patent log carried away when running over a shoal, where on one place only 12 feet of water was found. This shoal is not marked on the chart. Anchored on the shoal and searched for the log, but it could not be found. When sounding round the shoal 10 fathoms was found on either side of it. The position of it seems to be between two lines of the soundings marked on the chart. Proceeded to East Island and anchored at 12-50 P.M. Went ashore at Landfall Island. Noticed here an Andamanese encampment, also some very good teak logs, one of them over 60 feet long.

30th January 1901.—Left East Island, anchored at 5-30 A.M., and passed by Whitecliff and Thornhill Islands through Temple Sound to Paget Island. Anchored off Oldham rock and went ashore with Mr. Man and party on Paget Island, where a number of Andamanese were seen. Returned on board and anchored at Paget Island anchorage for the night at 4 P.M.

31st January 1901.—Left Paget Island at 6 A.M. for Casuarina Bay. Anchored at 8 A.M. Mr. Man and party went ashore and after they returned proceeded to Pembroke Bay. The coast of Pembroke Bay is very dangerous. Several shoals were seen some miles off shore. There is also a reef nearly all across the Bay. The channel is to the south of the latter. Anchored in Pembroke Bay at 1-30 P.M. Mr. Man and party went ashore to take Census and on their returning we proceeded to North Reef Island where we anchored at 5 P.M. for the night.

1st February 1901.—Left North Reef Island at 6 A.M. and proceeded through Interview Passage for Port Anson. Met some Andamanese off Bennet Island and proceeded after Census had been taken to the extreme south of Interview Island and anchored inside the coral reef which forms a sheltered cove; here Mr. Man and party went ashore to take Census, and after they returnned we proceeded to Port Anson. Took the *Bess* alongside the *Elphinstone* and took 400 gallons of water, while some convicts, Andamanese, and police were transferred from the *Elphinstone* to the *Bess*. Took also two boats over. Anchored here at 4 P.M. for the night.

2nd February 1901.—Left Port Anson at 6 A.M. for Port Blair *viâ* Homfray Strait and Colebrooke Passage. The *Bess* struck on a reef in Elphinstone Harbour. This reef is not marked on Commander Simpson's chart of Homfray Strait and Colebrooke Passage which was used at the time. As the compass used on the *Bess* is not adjusted, I could not take the correct bearings of the reef, but am forwarding a chart herewith on which it is marked approximately. The reef seems to be marked on Commander Bacon's chart of Elphinstone Harbour. The Andamanese informed me that there are two reefs here, one just south of

Homfray Strait (which I was aware of) and the other about half-way through Elphinstone Harbour on which the *Bess* struck. They also told me that there is a deep channel between the two and running close along the shore, for which they thought I was steering. No apparent damage was done to the *Bess*, and after she got off we proceeded through Colebrooke Passage to Port Blair, arriving at the latter place at 2 P.M.

Second Tour.

Diary of Mr. E. H. Man, C.I.E., Deputy Superintendent, Port Blair, on the second tour round the Andaman Islands on Census duty from 15th to 18th February 1901.

15th February 1901.—Left this harbour on the second tour at 6-30 A.M. in the *Bess* accompanied by Captain Anderson, Mr. D'Oyly and a party of Andamanese. The steam launch *Belle* with Mr. Bonig and some more Andamanese (including 11 Önges who had lately arrived) accompanied us and led the way. Proceeding northwards we arrived at Duratang at 9-30. Finding all well there, and having ascertained that none were there who had not been already enumerated, proceeded through Middle Strait to Kwangtung Harbour, where 51 aborigines were assembled at Lekera-lon-ta. It was found that 21 of these had already been entered in the returns of the first tour. Fifteen cocoanut seedlings were planted and some fowls left for breeding purposes. Presents were then distributed and photographs taken.

16th February 1901.—Six aborigines who arrived after sunset yesterday were brought to the *Bess* at daybreak and particulars regarding them were noted. After this the *Bess* and *Belle* left for Port Campbell, where we arrived at about 10 A.M. The whistle was sounded several times with no apparent result, and we were about to leave when some Andamanese were seen to emerge from the jungle near the sea on the south side of the harbour. They were at once pronounced to be Jarawas by our Andamanese. Seeing us turn back and stop, they gesticulated and appeared to court an interview, so we decided to approach them in our boat. Accompanied by Captain Anderson, Mr. D'Oyly and some Andamanese, including one woman, and taking cushions and boards to serve as shields in case of hostilities, we proceeded shorewards. Meantime the women and children of the Jarawa party, numbering about five, were seen to hurry away along the sandy beach to the eastward, while the men remained behind. Three of the latter boldly came forward on to the foreshore to meet us and they were observed to have their bows and arrows in their hands ready for immediate use. On our approaching to within about 80 yards of them, they assumed a threatening attitude and shouted apparently in defiance and this in spite of their hearing the shrill cries of the Andamanese woman in our boat, whose presence being thus announced it was hoped they would be persuaded of our peaceful intentions. We then ceased pulling and carefully watched their actions. The leader of the three, who was then about 60 yards distant, was next seen to raise his bow, and he was evidently about to discharge his arrow at us—which would have been the signal for the other two men to do the same—when Captain Anderson, most opportunely, fired at him with his ·303 rifle, with the result that the leader was wounded in his right thigh. The effect produced by our single shot so surprised the three men that no arrow was discharged at us by any of them. The wounded man, who was seen to bleed profusely, at once ran towards the beach, but fell after going about 20 yards. The other two men ran to his assistance and carried him to the jungle, while the remaining men of the party shouted to the women and children to return, which they did. It would have been easy to shoot any of the men during this interval and without any risk to our party, but we refrained from doing so, although there was strong ground to suspect that these were the men concerned in the recent unprovoked murder of a petty officer of the garjan-oil collecting file near Anikhet. In spite of our forbearance, we felt convinced that, as the wounded man would probably soon bleed to death, the effect already produced would suffice to deter the Jarawas from again defying and assaulting us as they had just done. After waiting near the spot for some time we returned to the *Bess* and the two launches then left for Port Mouat, where we arrived at 4-30 P.M. We there procured an old canoe for presentation to our Önge friends, they having met with an accident to their canoe in coming to Port Blair a few days before. The Mount Augusta Home was visited during the evening, and some cocoanuts obtained for distribution among the Önges.

17th February 1901.—Both launches left at 5-30 A.M. and proceeded through the Labyrinth Islands to the anchorage at Cinque Island, where we arrived at 10 A.M. We there took on board eight Önge women and two boys who had been left there by our Önge companions when proceeding to Port Blair. Taking all the Önges on board the *Bess*, the *Belle* was left at anchor, and we proceeded for Little Andaman arriving off Bumila Creek at 3 P.M. We took on shore 35 cocoanut seedlings for planting and a number of fowls for breeding, and the Önges landed in the canoe with a variety of presents which they had brought with them. The seedlings were planted in a suitable spot and the 21 Önges we had brought were then given an opportunity of witnessing the performances of Captain Anderson's rifle, which duly impressed them. We were disappointed to find that there were no other Önges in the vicinity of Bumila Creek at the time of our visit. At 5 P.M. we returned to the *Bess*, and after a somewhat rough passage we reached the anchorage at Cinque Island at 8-30 P.M.

18th February 1901.—At 6 A.M. Captain Anderson, accompanied by Mr. D'Oyly, visited Cinque Island in order to make some geological observations and obtain some specimens. On their return at 8-30 both launches left for Port Blair where they arrived at about 11-30 A.M.

From the accompanying returns it will be seen that we can with confidence estimate the present population of Great Andaman (exclusive of the Jarawas) at no higher figure than 600, of whom only 20°/₀ are children, while the Önges and Jarawas together are believed not to exceed, 1,000, *viz.*:—

Önges (Little Andaman)	500
Jarawas (South and Middle Andaman)	250
Do. (Rutland Island)	100
Do. (North Sentinel)	150

Diary of Captain A. R. S Anderson, I.M.S., Senior Medical Officer, Port Blair, on the second tour round the Andaman Islands on Census duty from the 15th to 18th February 1901.

15th February 1901.—Embarked on the *Bess*, left Port Blair about 6-30 A.M., accompanied by the *Belle* and, after a smooth passage, reached Kyd Island soon after 9-30. Having communicated with the inhabitants—Andamanese and convicts—and landed a few fowls for breeding purposes, we departed for Middle Straits, through which we passed, with occasional rain squalls and anchored for the night close to and inside the northern entrance of Port Anson. We landed and made a Census of the people, who had been collected from the surrounding country by Andamanese left here for this purpose on our former trip. Here, as in all the other places visited, the great paucity of children was very noticeable. Only one of the women had two children, the others possessing either one each or none. The commonest story they tell is that their first or first and second children are dead and that the one with them is the sole survivor. The great child mortality is undoubtedly due to the very extensive prevalence of syphilis which displays itself in some of its most virulent forms among these people. The infantile mortality is certainly not due to maternal neglect, as the mothers display great affection for their children.

We landed some cocks and hens, strictly enjoining the people not to eat but to feed them and allow them to breed and to this they readily assented. We also distributed some sprouting cocoanuts which seemed much appreciated.

16th February 1901.—Left Port Anson at 6 A.M., and at 10 entered Port Campbell; made the circuit of the harbour, sounded the whistle several times, but failed to evoke any response from the inhabitants until we were actually departing. Then the people on the *Belle* discovered some Andamanese on the western shore, close to the entrance of the harbour. About eight women with a few children and some eight men were seen slowly wending their way along the sand towards the southern part of the bay. We again whistled to attract their attention and slowly stood in towards the shore, at about three cables from which we came to an anchor. No sooner had we done so than the men began wading out from the shore towards us, using threatening gestures with their bows and arrows, while the women and children, with their camp gear slung in baskets on their backs, made off at a quicker pace along the upper part of the beach. Seeing their inability to reach us, the men slowly retreated after the women leaving three of their number behind to act as a rear guard. As we were anxious to see these people at close quarters, to accurately count them, and if possible to establish friendly relations, we put off in our boat to the shore. In the boat were Messrs. Man and D'Oyly and myself, a convict at the tiller and a crew of some seven Andamanese together with an Andamanese woman, whose shrill cries we hoped might prove to the savages ashore our pacific intent. The crew as usual took their bows and arrows with them, but carefully kept them concealed in the bottom of the boat; and, as our Andamanese assured us very positively that their compatriots ashore were bent on mischief, Mr. D'Oyly took a Mauser pistol and I a ·303 rifle. As we approached the shore in token of amity we waved our umbrellas, our handkerchiefs, and large pieces of red cloth intended as presents and much appreciated by other Andamanese. We also instructed our Andamanese woman to shout friendly messages: shout she did, and the messages were doubtless—although unintelligible to me—friendly. When we were still about one hundred yards from the water's edge and had only just sufficient water to float our boat, while inshore of us stretched a coral shoal with a foot or less of water on it, the three rear-guard Andamanese came leaping down the shore and, after trying their bows to see that they were in good order, with loud shouts rushed into the water to the attack of our boat. I went forward, stood in the bows of the boat and waved the cloth presents vigorously and got the woman to again shout. In vain; they totally ignored our friendly overtures. The three warriors formed into line abreast, an interval of about 15 yards separating the one from the other, and ran towards us splashing through the water which reached half-way up to their knees. The man attacking the bows of the boat, who was the ring-leader and directing the operations of the other two making the flank attack, had his arrow already on the bow-string and was in the act of firing, being now well within bow-shot 60—80 yards, when after motioning him to stop and his disregarding my order, I fired at and struck him in the right thigh. He spun round and made off for the beach, followed by the other two. After running a short way up the shore, he was joined by his comrades and while one carried him on his back into the bush, the other ran off along the shore yelling to the rest of the party who were now hastening forward to the attack. As our retreat was out of the question and we had not the slightest desire to renew such an unequal contest I fired a shot into the sand a few feet in front of the party to warn them that they were well within range. This so greatly surprised and alarmed them that they at once rushed into the forest and we saw them no more. After waiting about ten minutes longer and again trying in vain to

establish friendly relations by means of the woman's cries we put off to the *Bess*, hove up anchor and stood out of the harbour.

I greatly regret that the necessity for shooting this man should have arisen and that it should have devolved upon me to do it; but from our Andamanese we learnt that the damaged man undoubtedly belonged to the same raiding party that, between two and three weeks before, murdered one of our convict petty officers while out in the forest looking after the garjan-oil collectors. They also told us they had frequently encountered him before, recognised him by his large moustache and that he was an absolutely implacably hostile villain. As our boat was, at the time of the attack, lying in shallow water, bows to the shore, and the crew had to stand on the thwarts to fend her off the coral knobs and were thereby terribly exposed, a speedy retreat, as well as being very impolitic, was impracticable. Two alternatives then remained, to allow the savages to fire into our crowded boat with the certainty of hitting some one, or forestalling them by shooting one of their number. Our Andamanese were certainly physically not the equals of the Jarawas, so that we could hardly rely on their shooting as well as their opponents and repelling the attack with their bows and arrows, hampered as they were for want of room and the necessity of looking after the boat. Moreover, we had ordered them not to display or even touch their weapons to provoke an attack and they had behaved with exemplary self-control in strictly obeying their orders, relying implicitly on the protection of the weapons in our hands. Had the three men fired simultaneously, as was their evident intent, into our midst, the arrows, coming from such different directions, must have hit some of us and a disaster would almost certainly have ensued. I need hardly say that the Andamanese in our boat desired the total extermination of their life-long enemies, the Jarawas, while those in the *Belle* were most indignant and aggrieved at not being permitted to land to share in the fight.

After leaving Port Campbell we steered south and at 4-30 dropped our anchor off the Mount Augusta Home in Port Mouat where we spent the night. One of the women in the home was overjoyed at hearing that a Jarawa had been injured, as they had ousted her tribe from their possessions in Port Campbell. The knowledge now imparted to the Jarawas that rifles can injure as well as make a noise, may save the lives of any mariners who chance to be shipwrecked on these coasts.

17th February 1901.—Left Port Mouat at dawn, 5-30, towing a large Andamanese canoe, a present for the Önges. To the south of Rutland Island the wind freshed considerably, the canoe upset and we were a good deal delayed by collecting the scattered oars, seats and steersmen and finally hoisting the canoe up to our rail. After anchoring the *Belle* between the Cinque Islands, taking Mr. Bonig and the Önges aboard, we left at 10 A.M. for Little Andaman, picking eight Önge women and two boys off South Cinque Island where they had been awaiting the return of their husbands from Port Blair. We reached Bumila Creek at 3 P.M., landed the Önges, planted some cocoanuts, explained and exhibited the effects of rifle fire to the people, saw their dances, gave them presents and left them happy and contented at 5 P.M. Bumila Creek we found well deserved its name, as crowds of flies settled on our boat and accompanied us back to the *Bess*. Several of the Önge women had large scars on their backs, many 6—8 inches in length, some women having four to eight such scars. These are said to be caused by cuts inflicted by their irate husbands to mark their displeasure at conjugal infidelity, which, to judge by the large proportion of scarred women, is not uncommon. After a very rough passage rendered difficult by the darkness of the night and the absence of a good compass, we anchored off Cinque Island at 8-30.

18th February 1901.—Landed on south Cinque Island to collect specimens of the bare rocks which form such a marked feature of parts of Rutland and the Cinque Islands, returned to the *Bess* at 8-30, hove up anchor, left for Port Blair, and reached there 11-30 A.M.

Diary of Mr. H. H. D'Oyly, Third Assistant Superintendent, Port Blair, on the second tour round the Andaman Islands on Census duty from the 15th to the 18th February 1901.

15th February 1901.—Left Port Blair with Mr. E. H. Man, C.I.E., and Captain A. R. S. Anderson, I.M.S., in the steam launch *Bess* at 6 A.M., following close behind the steam launch *Belle* which was navigated by Mr. Bonig, Assistant Harbour Master, going north *viâ* Kyd Island. As the weather was bad for two or three days previously until last night, it was decided to reverse the original programme drawn up by the Chief Commissioner, so as to give time for the sea to calm down before attempting the passage to the Little Andaman. We stopped for half an hour at Kyd Island to question the people at the Andamanese Home there, where we went before in the first tour, and to leave some cocoanuts to be planted; then proceeded through Middle Strait to Kwangtung Harbour. No people were found on the way. At the village in the mouth of the Harbour, there were 51 people, counting women and children, collected according to directions given by Mr. Man, in the first tour, from the surrounding country. Details are given in the Census forms, to be submitted to the Chief Commissioner, at the end of the operations. Remained in this Harbour for the night.

16th February 1901.—Left Kwangtung Harbour at 6 A.M., the *Bess* following the *Belle*, and ran down the west coast of South Andaman to Port Campbell. In entering the port we blew the steam whistle several times before seeing any people on shore. At length when we had turned to run out of the port, about a dozen Andamanese including some women were seen walking fast along the shore from the mouth of the Harbour towards the interior. Our

Andamanese on board at once said that those on shore were of the Jarawa Tribe. As they spoke, some of the men on shore waded out in the sea towards us making threatening gestures with their bows and arrows, but seeing that the steam launches were too far off, quarter mile from the shore, they rejoined their party and proceeded along the sands. Mr. Man decided that we should go ashore in a boat manned by our Andamanese, taking one of their wives with presents to attempt a conciliation with the Jarawas. As a precaution, Captain Anderson took a rifle and I took a Mauser magazine pistol. We rowed in, not showing any arms, and stood up in the boat waving handkerchiefs and red cloth, and making the women call out to show that we did not mean hostility. It was soon apparent that the Jarawas meant fighting, for they took their women away some distance behind a rocky point, while three of the men armed with bows and arrows returned and with threatening cries and gestures waded out towards us, through the intervening shallow water, our boat being only just clear of the ground. These three Jarawas advanced quickly, straight towards us, without any hesitation, but taking care to keep an interval of about 15 yards between each, and to place themselves so that the centre man could rake the boat, while the others could shoot into each side of it. We still did not show our arms, but persevered in making friendly signs until they were about 50 yards off, when Captain Anderson knelt down and, resting his rifle on the bow of the boat, drew a bead on the man who was evidently directing their party. As their leader was in the act of raising his bow with the cord drawn back to shoot, he was brought up literally with a round turn by a ·303 bullet from Captain Anderson's rifle through his thigh. His two companions turned at the same time and ran away, but seeing the wounded man fall after he had run about 20 yards, they stopped to help him and pluckily carried him ashore into the jungle, where he probably died shortly, judging from the gush of blood which crimsoned the water all round him the moment he was hit. It would have been easy to kill the three, but we did not like to fire at them running away, especially when the wounded man was being helped along by the others. When one of them, however, came out of the jungle again and shouted to the rest of their party for help, the reinforcement was put a stop to by another shot from Captain Anderson, aimed so as to hit the ground two or three feet in front of the shouter. This made him disappear at once and also his friends, when they saw the spot where the bullet had ploughed through the sand. We judged it best to return to the steam launch then, and both the *Bess* and *Belle* left Port Campbell for Port Mouat, where we arrived about 4-30 P.M. We visited the Andamanese Home at Balughat and remained at this anchorage for the night.

17th February 1901.—The *Belle* and *Bess* left Port Mouat at 5-30 A.M. and going through the Labyrinth Islands arrived at the Cinque Islands anchorage at about noon. Leaving the *Belle* there, and taking Mr. Bonig on board the *Bess* we proceeded to Little Andaman, arriving in Bumila Creek at 3-30 P.M. Went ashore but found no one, though there were fresh foot-prints in the sand and a fire still alight. Landed several Önge men and women of this country some of whom had visited Port Blair, and some who had been picked up on the Cinque Islands. Planted out some cocoanut seedlings on the shore of the creek and gave presents to the Önge people. Started off at 5 P.M. and had a rough passage to the Cinque Island anchorage, not arriving there till 9 P.M.

18th February 1901.—Captain Anderson and myself landed on the big Cinque Island, to examine the geological formation, which is quite unlike that of the rest of the Andamans, and is undoubtedly volcanic. The *Bess* and *Belle* left at 8 A.M. for Port Blair, having a fairly rough passage, and arrived at noon.

Diary of Mr. Bonig, Assistant Harbour Master, on the second tour round the Andaman Islands on Census duty from the 15th to 18th February 1901.

15th February 1901.—Left Port Blair on second tour at 6-30 A.M. in the *Belle* followed by the *Bess*, with Mr. Man and party for Kyd Island, arriving there at 9-30 A.M. Proceeded through Middle Straits to Port Anson where we anchored for the night at 4 P.M.

16th February 1901.—Left Port Anson at daybreak for Port Campbell where some Jarawas were seen. Mr. Man and party went in the boat towards them, but returned without landing. Proceeded to Port Mouat where we anchored for the night at 4-30 P.M.

17th February 1901.—Left Port Mouat at 5-15 A.M. and proceeded *viâ* the Labyrinth Islands and the south of Rutland to the anchorage between the Cinque Islands. Anchored the *Belle* here and left her in charge of the serang while I proceeded on board the *Bess viâ* South Cinque Island, where some Önge women were taken on board, to the Little Andaman, arriving off Bumila Creek at 3 P.M. Mr. Man and party went ashore with the Önges. Left Bumila Creek at 5 P.M. and returned to Cinque Island at 8-30 P.M. Anchored for the night.

18th February 1901.—Left Cinque Island at 7 A.M. and returned to Port Blair at 11-30 A.M.

On the first tour the *Bess* was under steam about 80 hours, under banked fires 122 hours. She steamed 375 miles, consuming 11 tons of coal and 1,000 gallons of water for the boiler.

On the second tour the *Bess* was under steam about 37 hours, under banked fires 76 hours. She steamed 235 miles, consuming 6 tons of coal and 600 gallons of water for the boiler.

The *Belle* was under steam about 27 hours, under banked fires 86 hours. She steamed 200 miles, consuming 5 tons of coal and 750 gallons of water for the boiler.

About 2 gallons of water per man per day was used for drinking purposes.

APPENDIX C.

CENSUS OF INDIA, 1901.—FIRST TOTALS.

ANDAMAN AND NICOBAR ISLANDS.

Chief Commissioner.—LIEUTENANT-COLONEL R. C. TEMPLE, C.I.E.

Census year.	Population.			Variation since preceding Census (+) or (−).	
	Males.	Females.	Total.	Number.	Per cent.
1901	18,581	5,918	24,499	+8,890	+56·95
1891	13,375	2,234	15,609	+ 981	+ 6·71

The increase in the population is due to the inclusion of the aborigines of the islands, now enumerated for the first time under the admirable arrangements made by Colonel Temple. The results of this Census, which was conducted by special parties of the Andamans officials at some risk to themselves, are shown in the tables below, the Andamanese being classified by the recognised tribes, and the Nicobarese by the dialects spoken on different islands or groups of islands. The number of children among the Andamanese and the Southern Nicobarese is probably understated. The Census operations have brought to light a new tribe, the Tâbô of North Andaman, and have proved the recently discovered Kôrâ Tribe to be comparatively numerous. The Census officers were set upon at Port Campbell by the implacably hostile Jarawas of South Andaman, and only saved themselves by firing on their assailants, one Jarawa being killed. In explanation of the small numbers of the newly discovered Tâbô Tribe, the Census party were informed that when a contagious disease was recently introduced among the Tâbôs by the Châriâr or Kôrâ Tribes of the coast they proceeded to kill off all those attacked until very few of the tribe were left.

ANDAMANESE.

Name of Tribe.	Adults.		Children.		Total.	
	Male.	Female.	Male.	Female.		
	No.	No.	No.	No.	No.	
Châriâr .	16	15	6	2	39	
Kôrâ .	31	32	14	19	96	Lately discovered.
Tâbô .	15	16	7	10	48	Hitherto unknown.
Yêre .	98	80	26	14	213	
Kede .	24	30	3	2	59	
Jûwai .	21	19	7	1	48	
Kôl .	6	2	3	...	11	
Bojigyâb	31	14	2	3	50	
Balawa .	5	10	3	1	19	
Bêa .	14	16	3	4	37	
Jarawa .	280	210	55	40	585	
Ôngе .	303	273	63	33	672	
Total .	844	717	192	129	1,882	

NICOBARESE.

Dialect.	Adults.		Children.		Total.
	Male.	Female.	Male.	Female.	
	No.	No.	No.	No.	No.
Car Nicobar .	1,126	999	704	662	3,451
Chowra . .	172	178	100	72	522
Teressa . .	208	190	174	130	702
Central . .	409	398	152	136	1,095
Southern .	81	73	18	20	192
Shom Pen .	168	140	24	16	348
	2,164	1,978	1,172	996	6,310
Foreign traders	201	...	...	...	201
Total .	2,365	1,978	1,172	996	6,511

NOTE.—The dialects of Car Nicobar and Chowra are spoken on those Islands only: that of Teressa on Teressa and Bompoka: the Central Dialect on Camorta, Trinkat, Nancowry and Katchall: the Southern Dialect on Pulu Milu, Little Nicobar, Condul and Great Nicobar (Coast): the Shom Pen in the interior of Great Nicobar.

H. H. RISLEY.

APPENDIX D.

List of places visited by the Census Party.

English Name.	Andamanese Name.
Kyd Island.	Dura-táng.
Colebrooke Island S. Bay.	Pâr-l'on-tâ.
„ „ N. Coast.	Târa-chūlnga.
Havelock Island.	*Pŭluga-l'âr-mūgu-ērema.*
„ on N. W. Coast of	Pūlu-l'untâ.
„ Strait between Sir W. Peel and	Tadma Jūru.
John Lawrence Island.	Parkit-ērema.
Kwangtung Strait.	Gereng-lêbar.
Outram Harbour.	Târ-mūgu.
Bacon Bay.	Târa-chiro.
Stewart Sound.	Miriti-râ-pong.
Austin Strait.	Pôrong-chīro.
Camp Bay.	Làu-tíche.
Cadell Point (W. Bay).	Chaka-mit-koito.
„ „ (N. Bay).	Tâ-burongo.
Lámia Bay, S. extremity of	Rengo-to-tía.
Port Cornwallis.	Tōlobu-tong.
„ „ Chatham Island.	Tébi-chíro.
Turtle Island.	Koto-par.
Cadell Bay.	Tébi-chíroh.
Landfall Island.	Tàu-râ-míku.
West Island.	Kareng-méo.
Whitecliff Island.	Tar-bóro.
Thornhill Island.	Bâ-pong.
Reef Island.	Tí-kô-dung.
„ „ N. E. Encampment.	Taumo-tàt.
Paget „	Kárate-tàt-chíro.
Casuarina Bay.	Tôrop-tot-chéto.
„ „ N. E. Encampment.	Tébi-chíro.
North Reef Island.	Ina-ta-râ-jóle.
Pembroke Bay W. Coast.	Renge-l'un-tô.
Interview Island S. Encampment.	Karang-to'ng-tâ-chira. Lékerâ-l'on-tâ.
Kwangtung Harbour.	Kuro-pòng.
Port Campbell.	Târa-châng.
„ Mouat, "Home" at.	Gereng-l-âkachâti-jūru.
Cinque Island.	Jertía.
Little Andaman.	Wilima-târa.

Statement of the detailed population of the Andaman Islands.

Name of Tribe.		Adults.		Children.		Total.
		Male.	Female.	Male.	Female.	
Bēa	*seen*	14	12	3	3	37
„	*not seen*	...	4	...	1	
Balawa	*seen*	8	7	1	1	19
„	*not seen*	2	3	2	...	
Bojigyâb	*seen*	17	6	2	...	50
„	*not seen*	14	8	...	3	
Jūwai	*seen*	13	14	3	...	48
„	*not seen*	8	5	4	1	
Kôl	*seen*	2	...	...	...	11
„	*not seen*	4	2	3	...	
Kede	*seen*	21	21	3	2	59
„	*not seen*	3	9	...	...	
Yēre	*seen*	76	57	21	8	218
„	*not seen*	22	23	5	6	
Tâbô	*seen*	2	...	...	...	48
„	*not seen—estimated*	13	16	7	10	
Kôrâ	*seen*	21	20	8	15	96
„	*not seen*	10	12	6	4	
Châriâr	*seen*	16	15	6	2	39
„	*not seen*	...	...	...	...	
Önge	*estimated*	303	273	63	33	672
Jàrawa	*estimated*	280	210	55	40	585
	Total	844	717	192	129	1,882

Tabular Statement showing the present numbers

Serial No. of place.	Where found.	Tribal Territory.	Bea.				Balawa.				Bojigyab.				Juwai.				Kol.				Ke	
			Adults.		Children.		Adults.		Children.		Adults.		Children.		Adults.		Children.		Adults.		Children.		Adults.	
			M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1	Port Blair Homes	Béa	11	10	...	2	2	5	1	1	8	...	...	...	6	5	...	...	2	...	...	...	11	9
	Duratáng Home	„	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
2	Nil	Balawa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Kwangtung Harbour	Bojigyàb	1	1	1	1	...	1	...	...	9	6	2	...	...	...	...	...	...	...	...	...	...	...
	Homfray Strait	„	...	2	...	...	...	1	1	...	4	2	...	2	...	...	...	...	...	...	...	...	...	...
	Colebrooke Island	„	...	...	...	...	1	...	1	...	3	1	...	...	...	2	1	...	...	...	...	...	...	...
	Lékera-l'on-tà	„	1	1	1	...	1	1	...	...	...	...	...	...	6	7	2	...	...	...	...	...	4	5
		„	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Pili-brōnga (in Boroin jig)	Jūwai	...	...	...	...	...	...	...	...	1	2	...	1	2	...	...	...	...	...	...	...	...	...
	Binga-brōnga (in Boroin jig)	„	...	...	...	...	...	...	...	...	...	...	...	...	3	1	2	...	...	...	...	...	...	2
	Tôlo-boicho	„	...	...	...	...	...	...	...	...	...	...	...	...	3	1	1	1	...	...	...	...	...	2
5	Pór-lōb	Kôl	...	1	...	...	...	1	...	...	6	2	...	...	...	1	...	...	...	...	...	...	...	...
	Long Island	„	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	3	2	2	...	...	1
	Bürka-chóng (in Yòl jig)	„	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
	Near Interview Island	Kede	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	At Interview Island	„	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...	...	...	...	...	6	5
	Emej-lâr-tet (near Rongat)	„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1
	Betárà-ko-dah (Cuthbert Bay)	„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3
7	Bacon Bay	Yēre	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Austin Strait	„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Camp Bay (Stewart Sound)	„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Various spots	„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lamia Bay	„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pembroke Bay	„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	North Reef Island	„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Nil	Tâbô	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Port Cornwallis	Kôrâ	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ti-kô-dung (N. E. of North Andaman)	„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	Paget Island	Châriàr	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		„	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total (seen)	14	12	3	3	3	7	1	1	17	6	2	...	13	14	3	...	2	...	...	...	21	21
		Total (*not seen*)	...	4	...	1	2	3	2	...	14	8	...	3	8	5	4	1	4	2	3	...	3	9
	Grand Total		14	16	3	4	5	10	3	1	31	14	2	3	21	19	7	1	6	2	3	...	24	30

DIX E.

in each tribe as ascertained by the Census.

DE.		YERE.				TABO.				KORA.				CHARIAR.				ÖNGE.				JARAWA.				TOTAL.			
Child-ren.		Adults.		Child-ren.		Adults.		Child-ren.		Adults.		Child-ren.		Adults.		Child-ren.		Adults.		Child. ren.		Adults.		Child-ren.		Adults.		Child-ren.	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
...	...	18	9	4	4	1	...	...	...	1	...	...	...	9	9	2	...	...	...	...	...	...	...	...	...	69	47	7	7
1	...	6	5	3	...	1	...	...	...	...	...	...	1	...	1	1	1	...	...	...	...	...	...	...	...	8	7	6	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	9	3	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	5	1	2
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	2	...
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	14	3	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	2	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	1	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	5	...	...
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	5	2	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...
...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...
2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	7	3	2
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...
...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	...	1
...	...	12	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	1	1	...
...	...	3	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	2	...
...	...	16	18	6	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	18	6	3
...	...	20	20	5	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20	20	5	5
...	...	1	...	...	...	...	...	...	...	3	4	...	2	...	...	...	...	...	...	...	...	...	...	...	...	4	4	...	2
...	...	10	8	1	...	...	...	...	...	...	...	...	...	2	2	2	...	...	...	...	...	...	...	...	...	12	11	3	...
...	...	5	5	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	5	3	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	5	4	...	3	...	...	...	...	...	...	...	...	...	...	...	...	5	4	...	3
...	...	...	...	...	...	...	...	...	...	2	1	1	2	1	2	...	...	...	...	...	...	...	...	...	...	3	3	1	2
...	...	2	5	1	1	...	...	...	...	10	11	7	7	4	1	1	1	...	...	...	...	...	...	...	...	16	17	9	9
...	...	...	...	...	...	...	...	...	...	10	12	6	4	...	...	...	...	...	...	...	...	...	...	...	...	10	12	6	4
3	2	76	57	21	8	2	...	...	...	21	20	8	15	16	15	6	2	...	...	...	...	...	...	...	...	185	152	47	31
...	...	22	23	5	6	...	...	...	...	10	12	6	4	...	...	...	...	...	...	...	...	...	...	...	...	63	66	20	15
3	2	98	80	26	14	2	...	...	...	31	32	14	19	16	15	6	2	...	...	...	...	...	...	...	...	248	218	67	46
																										466		113	
																												579	

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APPENDIX F.

Table of Census Results by Tribes.

Serial No.	Tribe.	Adults.		Children.		Total.	At Port Blair and Duratang Homes.	Adults.		Children.		Total.	Grand Total.	Adults.		Children.		Total
		M.	F.	M.	F.			M.	F.	M.	F.		Tribe.	M.	F.	M.	F.	
1	Bēa	2	2	2	1	7	Port Blair	11	10	...	2	23	Bēa	14	12	3	3	32
	„	...	*4*	...	*1*	*5*	Duratang	1	...	1	...	2	„	...	*4*	...	*1*	*5*
2	Balawa	1	2	...	...	3	Port Blair	2	5	1	1	9	Balawa	3	7	1	1	12
	„	*2*	*3*	2	...	7	Duratang	...	...	...	...	...	„	*2*	*3*	*2*	...	7
3	Bojigyâb	*9*	*6*	2	...	17	Port Blair	8	...	...	...	8	Bojigyâb	17	*6*	2	...	25
	„	*14*	*8*	...	*3*	25	Duratang	...	...	...	...	...	„	*14*	*8*	...	*3*	25
4	Jūwai	7	9	3	...	19	Port Blair	6	5	...	...	11	Jūwai	13	14	3	...	30
	„	*8*	*5*	*4*	*1*	*18*	Duratang	...	...	...	...	...	„	*8*	*5*	*4*	*1*	*18*
5	Kôl	...	...	...	...	...	Port Blair	2	...	...	...	2	Kôl	2	...	...	...	2
	„	*4*	*2*	*3*	...	9	Duratang	...	...	...	...	...	„	*4*	*2*	*3*	...	*9*
6	Kede	10	11	2	2	25	Port Blair	11	9	...	...	20	Kede	21	21	3	2	47
	„	*3*	9	...	...	*12*	Duratang	...	1	1	...	2	„	*3*	9	...	...	*12*
7	Yēre	52	43	14	4	113	Port Blair	18	9	4	4	35	Yēro	76	57	21	8	162
	„	*22*	*23*	*5*	*6*	*56*	Duratang	6	5	3	...	14	„	*22*	*23*	*5*	*6*	*56*
8	Tâbô	...	...	...	...	...	Port Blair	1	...	...	...	1	Tâbô	2	...	...	...	2
	„	...	...	...	...	...	Duratang	1	...	...	...	1	„	...	...	...	...	...
9	Kôrâ	20	20	8	14	62	Port Blair	1	...	...	...	1	Kôrâ	21	20	8	15	64
	„	*10*	*12*	*6*	*4*	*32*	Duratang	...	...	...	1	1	„	*10*	*12*	*6*	*4*	*32*
10	Châriâr	7	5	3	1	16	Port Blair	9	9	2	...	20	Châriâr	16	15	6	2	39
	„	...	...	...	...	...	Duratang	...	1	1	1	3	„	...	...	...	...	...
	Total	108	98	34	22	262	Port Blair	69	47	7	7	130		185	152	47	31	415
		63	*66*	*20*	*15*	*164*	Duratang	8	7	6	2	23		*63*	*66*	*20*	*15*	*164*
		171	164	54	37	426		77	54	13	9	153		248	218	67	46	579

Italic figures refer to the numbers in each tribe *not seen* by the Census officers on account of their being at distant encampments, positive information regarding the numbers being furnished by those best acquainted with the facts.

APPENDIX G.

Tribal Distribution and Place Names, Andaman Islands.

1	2	3	4	5	6
No. on map.	Name of island, locality or encampment.	Andamanese name.	Tribal Territory.	Where situated.	Remarks.
	East Island	Tàu-kàt	Châriâr	The following islands off the north and north-west coast of North Andaman, *viz.*:—East Island, Landfall Island, West Island, Whitecliff Island, Thornhill Island, Reef Island, Paget Island, Point Island and Sugar-loaf Island.	The Coco Islands are known to this tribe by the name Diki-raichené.
	Landfall Island	Tébi-chíroh	"		
	Cleugh Passage	Làu-chíroh	"		
	West Island	Tàu-râ-míku	"		
	Thornhill Island	Tar-bôlo	"		
	Whitecliff Island	Kareng-méo	"		
	Reef Island	Bâ-pong	"		
	Paget Island	Tanmo-tàt	"		
1	Paget Island (encampment on)	Kâra-bóronga	"		
	Point Island	Mâra-bâlo	"		
	Sugar-loaf Island	Châ-ólo	"		
	Temple Sound	Tarà to lo-chíroh	...		
	Cape Price	Pâro-júe	Kôrâ	From bay opposite Craggy Island (East Coast of North Andaman) to Cape Price and thence along the North and West Coast to the North side of Casuarina Bay, together with all the islands off the Coast except Craggy Island and those constituting the territory of the Châriâr tribe.	
	Pocock Island	Kòi-cho	"		
	Cadell Bay	Kôto-par	"		
	Excelsior Island	Tàu-râ-míku	"		
	Port Cornwallis	Tôlobu-tòng	"		
1	Do. (Ross Island at mouth of)	Po-chumbo (also Bo-pung)	"		
	Chatham Island (Port Cornwallis)	Tébi-chíro	"		
1	Trilby Island	Cho-â-póng	"		
1	Encampment on N. E. of N. Andaman near Reef Island	Tí-kô-dung	"		
1	Island encampment between Port Cornwallis and Temple Sound	Bôl-pòli	"	The interior is occupied by the Tâbô tribe.	
	Craggy Island	Rôth	...		
	Casuarina Bay	Kárate-tàt-chíro	Yêre	*E. Coast.* From shore opposite Craggy Island in North Andaman Stream situated between Cooke Point and Kinserley Point in Middle Andaman, together with the islands of the Coast including Craggy Island.	
	Snark (? Shark) Island	Chíro-méo	"		
1	Casuarina Bay (encampment on N. side of)	Tôrop-tot-chéto	"		
	South extremity of Lamia Bay	Rengo-to-tía	"		
	Point between Yulik and Lamia Bay	Ko-po	"		
	Do. North of Tara-lait	Yulik	"		
	Eileen Bay	Pârô	"	*W. Coast.* From North side of Casuarina Bay in North Andaman to Mara-mika-boliu in the same island, together with the islands of the Coast. [This tribe has the Kôrâ tribal territory on its north side and the Kede on the south with the Tâbô in the interior.]	
1	Cadell Point, North of	Tâ-burongo	"		
1	Do. (Territory within a radius of few miles of)	Méo-pong	"		
	Do. Point (Bay W. of)	Chaka-mit-kòito	"		
1	Camp Bay	Lau-tíche	"		
1	Wreck Point	Chôlop-râ	"		
	Dot Island	Anâto	"		
	Kwangtung Island	Karáne-téo	"		
	Pembroke Bay	Tàu-kàt-chíro	"		
1	Encampment at S. W. of Pembroke Bay	Ina-ta-râ-jóle	"		
1	Latouche Island	Âr-kôl	"		
	N. Reef Island	Tébi-chíro	"		
1	Saddle Peak	Pâroto-míku	"		
1	Do. (Adjacent hill on N. side of)	Jíre-míku	"		
	Stewart Island	Miriti-râ pong	"		
	Sound Island	Tàul'àr-míku	"		
	Austin Strait	Pôròng-chíro	"		
1	Do. (encampment at E. end of)	Tâu-chàu	"		
	Brown Point	Iltomata	"		
	Bacon Bay	Tára-chíro	"		
1	Aves Island (also Berkeley group	Tàkla	"		
1	Casuarina Bay (encampment on S. side of)	Chàubalo-râ-chéto	"		

Tribal Distribution and Place Names, Andaman Islands—contd.

1	2	3	4	5	6
No. on map.	Name of island, locality or encampment.	Andamanese name.	Tribal Territory.	Where situated.	Remarks.
1	Interview Island	Tàu-tara-míku, also Tī-tara-míka, or in Bēa dialect, Tàu-l'ar-mūgu	Kede	*E. Coast.* From southern border of the Yêre territory (Middle Andaman) to Emej l'ar-tet. (Middle Andaman.)	
	Sea Serpent Island	Târa-bolo	„		
	Do. (Island adjacent to)	Tâla-bucho	„		
	Boudeville Island	Jara-bōroïn	„		
	Bennett Island	Chūrul-tong	„	*W. Coast.* From Mara-mika-boliu (North Andaman) to stream opposite N. E. point of Flat Island (Middle Andaman) with all islands from Interview to Flat Island inclusive (as shown on map).	
	Anderson Island	Tôro-tarâ-chôu	„		
	South Reef Island	Ti-pu-tâ	„		
	Encampment on South Extremity of Interview Island opposite Reef Island	Renge-l'un-tô	„		
	Tuft Island	Buruin	„		
	Hump Island	Lurwa	„		
	Flat Island	Téba-chíra	„		
	Island between Middle Andaman and Long Island	Pôr-lob	Kôl	*E. Coast.* From Emej-l'ar-tet to Homfray Strait with intervening islands (as shown in chart).	
	Long Island	Maī-i-táng	„		
1	Do. (Encampment on)	Ïga-tóng-tâ	„		
1	Encampment in Yot jig	Burka-chong	„		
	Do. Boroïn-jig	Pili-orōnga	„		
	Guitar Island	Tôli-tàle	„		
	Kwangtung Harbour (Encampment on N. side of)	Môt-kūnu	Bojig-yâb	N. side of Homfray Strait with Báratáng and the islands bordering the East and West Coasts of that island. [Jàrawas have in recent years occupied the interior of Báratáng at intervals.]	
1	Encampment on N. side of Homfray Strait	Tôli-chôrat	„		
	Site of ancient kitchen-midden near N. E. point of Báratáng opposite North Passage Island	Wòt-a-emi	„		
	Large island between Homfray Strait and Middle Strait	Báratáng	„		
	North Passage Island	Toba-ērema	„		
	Colebrooke Island	Pich-l'áka-châkan	„		
1	Do. (Encampment near N. W. point of)	Târa-chūlnga	„		
1	Do. (Encampment in S. Bay of)	Pâr-l'on-tâ	„		
	Do. Passage (Encampment near S. end of)	Ôropa-chūlnga	„		
	Strait Island	Gereng kaicha	„		
	Diligent Strait	Boroïn-jūru	„		
	Homfray Strait	Châra-jūru	„		
	Andaman (or Middle) Strait	Godam-jūru	„		
1	Barren Island	Taili-châpa	—		
	Narcondam	Châto-l'ig-ba-ng	...		
	Duncan (or Entry) Island	Kaichawa	Bēa	The whole of South Andaman and Rutland Island except where occupied by Jàrawas (*vide* map) also the Labyrinth Island, Spike Island and S.-W. corner of Middle Andaman, as shown in map.	
1	Islet at mouth of Luru-jīg inlet	Chàr-tot-kaicha	„		
	Kwangtung Harbour	Karang-tóng-tâ-chira	„		
1	Do. (Encampment near W. mouth of)	Lekerâ-l'on-tâ	„		
	Kyd Island	Dura-tâng	„		
	Port Campbell	Kuro-pòng	„		
	Do. Mouat	Gerengl'áka-châ-ti-jūru	„		
	Rutland Island	Tôko-pàt (Bēa) Ga-tin-a-Kwe-(Ônge)	„		
	North Button Island	Chàuga-l'on-jīng	Balawa	The Archipelago and the three Button Islands.	
	Middle Button „	Kaicha-wa	„		
	South Button „	Àga-l'ot-baraij	„		
	Outram Island	Târ-mūgu	„		
	Henry Lawrence Island	Châ'rka-ērema	„		
	John Lawrence Island	Parkit-ērema	„		
	East (or Inglis) Island	Jila-ērema	„		
	Wilson Island	Bôroïn-ērema	„		
	Nicholson Island	Kaichawa-ērema	„		

Tribal Distribution and Place Names, Andaman Islands—concld.

1	2	3	4	5	6
No. on map.	Name of island, locality or encampment.	Andamanese name.	Tribal Territory.	Where situated.	Remarks.
	Havelock Island . .	Pūluga-l'ār-mū-gu-ērema . .	Balawa .		
	Sir W. Peel Island . .	Tâ-ērema . .	,, .		
	Neill Island . .	Teb-jūru . .	,, .		
	Sir Hugh Rose Island .	Kòichowa-bar .	,, .		
	North Sentinel . .	Pâtâng . .	Jàrawa .	North Sentinel and the interior of the northern half of South Andaman and Bâratâng and Rutland Island, as shown in map.	
	Little Andaman . .	Wilima-târa (Bēa) Gwâbe-l'ônge (Ônge) . .	Ônge .	Little Andaman and the islands between that island and Rutland, also South Sentinel.	
	Bumila Creek (north of Little Andaman) . .	Kawâte-nyâbo (Ônge) . .	...		
	South Brother . .	Gwaicha-nâkwe (Ônge) . .	...		
	North Brother . .	Té-ta-lé (Ônge) .	...		
	Sister Island (small) .	Badgi-l'ar-râm (Bēa) Ta-joma-da (Ônge).	...		
	Do. (large) .	Pàtla-châng (Bēa) Ga-ta-kwâte (Ônge) . .	...		
	Passage Island . .	Alaba-châng (Bēa) Chôgoda (Ônge)	...		
	Cinque Island (North) .	Jēr-tìa (Bēa) Gwa-la (Ônge) . .	...		
	Do. (South) .	Jērtía (Bēa) Ga-ta-kwe (Ônge) .	...		
	South Sentinel . .	Yádi-l'ig bang (Bēa) Ináng-go-gwe (Ônge) .	...		

CHAPTER II.

DESCRIPTIVE.

I. Geography.—Position and General Description of the Andaman Islands—The Submarine Range between the Pegu Yomas and Sumatra—The Submarine Contours—The Great and Little Andaman—The Harbours—The Hills—The Scenery—Surveys.
II. Meteorology.—Commercial Value of the Meteorology—Climate—Cyclonic Storms—Rainfall—Weather—General Statistics—Tides.
III. Geology.—General Geology—The Subsidence of the Islands—Earthquakes—The Conchology—Marine Fauna—Economic Zoology—The Forests—The Timber and its Economic Uses—The Imported Flora—General Character of the Forests.
IV. History.—Ancient Notices of the Islands—Origin of the name—Mediæval and Modern Notices of the Islands—Modern History of the Islands and people.

I. Geography.

Position and General Description of the Andaman Islands.—The Andaman Islands, large and small, are said to number 204 and lie in the Bay of Bengal, 590 geographical miles from the Hooghly mouth, 120 miles from Cape Negrais in Burma, the nearest point from the mainland, and about 340 from the north extremity of Sumatra. Between the Andamans and Cape Negrais intervene two small groups, Preparis and Cocos; between the Andamans and Sumatra intervene the Nicobar Islands, all indicating a submarine range connected with the Aracan Yoma Range of Burma, stretching in a curve, to which the meridian forms a tangent, between Cape Negrais and Sumatra; and though this curved line measures 700 miles, the widest sea space is about 91 miles. The extreme length of the Andaman Group is 219 miles, with an extreme width of 32 miles.

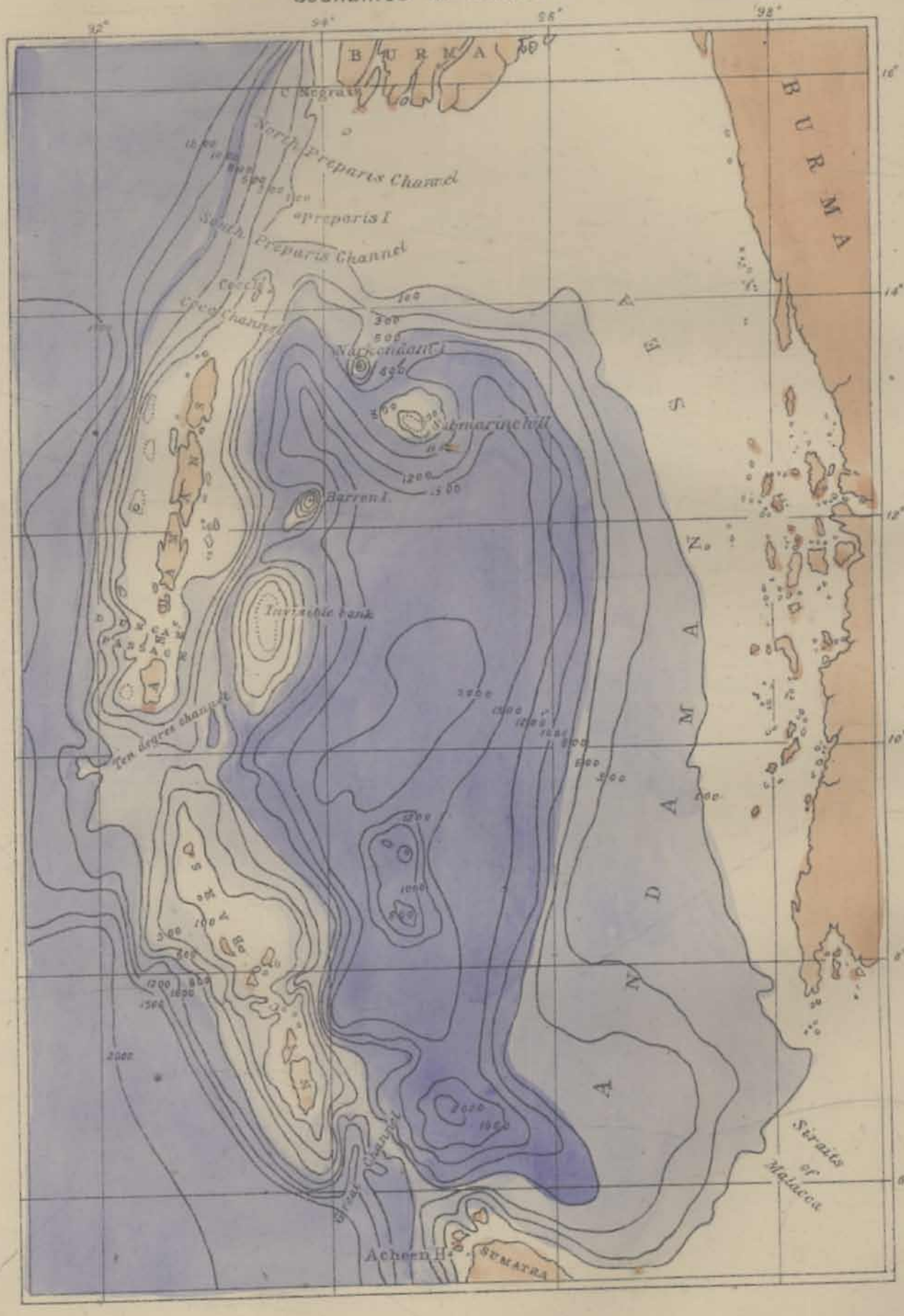
The principal outlying islands are the North Sentinel, a dangerous island of about 28 square miles, lying about 18 miles off the west coast of the South Andaman; the remarkable marine volcano, Barren Island, 1,158 feet, quiescent for the last hundred years, 71 miles to the North-East of Port Blair; and the equally curious isolated mountain, the extinct volcano known as Narcondam, rising 2,330 feet out of the sea, 71 miles east of the North Andaman.

The land area of the Andaman Islands is taken as 2,508 square miles.

To the west of the Andamans, distant about 18 miles, are the dangerous Western Banks and Dalrymple Bank, rising to within a few fathoms of the surface of the sea and forming, with the two Sentinel Islands, the tops of a line of submarine hills parallel to the Andamans: to the east, some 40 miles distant, is the Invisible Bank with one rock just awash, and 34 miles south-east of Narcondam is a submarine hill rising to 377 fathoms below the surface of the sea. Narcondam, Barren Island, and the Invisible Bank, a great danger of these seas, are in a line almost parallel to the Andamans inclining somewhat towards them.

The Submarine Range between the Pegu Yomas and Sumatra.—Certain physiological facts have long been held, in combination with phenomena exhibited by the fauna and flora of the respective terminal countries, to point to the former existence of a continuous range of mountains, thought to be subaerial, from Cape Negrais in Burma on the north to Achin Head in Sumatra on the south. According to the doubtful authority of Wilford, Hindu legends notice this remarkable range, ascribing it to Rama, who attempted here first to

CONTOURS OF THE ANDAMAN SEA
SOUNDINGS IN FATHOMS.



bridge the sea, an enterprise afterwards transferred to the south of India, and accomplished by the god at the more practicable point we call Adam's Bridge.

According also to Portman, the tradition of the South Andaman, or Bojigngiji, group of tribes is that Maia Tomola, the ancestral chief of the nation from which they all sprung, dispersed them after a cataclysm, which caused a subsidence of parts of a great island, divided it up into the present Andaman Islands, and drowned large numbers of the old inhabitants together with many large and fierce beasts that have since disappeared. As a matter of physical geography such a subsidence need not have been more than of 20 fathoms or 120 feet to convert one single island into the present Andaman group. Portman also notes, as tending to show the junction of the Andaman Islands with the mainland, that besides the South Andaman tradition, the people of the Little Andaman have names for animals that do not now exist and they cannot describe.

The acceptable evidence on this subject that I have been able to gather goes to show, on the assumption that, except in the case of isolated volcanic peaks, 200 fathoms is the extreme limit of the rising and sinking of land on the earth's surface, that it is possible that there was a time when the whole Andaman group with Preparis and the Cocos formed one continuous hill connected with Cape Negrais, and that this hill was separated by a sea of, say, 400 fathoms deep from the Nicobars considered as one island and the general Nicobar Island again by a sea of, say, 600 fathoms deep from Sumatra.

The Submarine Contours.—The accepted conclusive argument proving the isolation of the Andaman Sea from the connected oceans is that of Carpenter, who showed that the temperature of its great depths involved the existence all round it of submarine hills, the greatest depth of which below sea level could not be more than 750 fathoms. I have been at some trouble to draw contours of the depths of this sea from such data as the charts at my disposal afford and it seems to me that they fully support Carpenter's conclusion. The openings into the Andaman Sea from the connected oceans are:—from Bay of Bengal, the North and South Preparis Channels, the Coco Channel, Duncan Passage, Ten Degrees Channel, and the Great Channel:—from the Gulf of Siam, the Straits of Malacca. This last has a bar only a few fathoms deep and clearly isolates the Andaman Sea from the Gulf. The greatest depths in the other Channels are as under: North Preparis Channel, 47 fathoms; South Preparis Channel, 150 fathoms; Coco Channel, 36 fathoms; Duncan Passage, 17 fathoms; Ten Degrees Channel, 565 fathoms; Great Channel, 798 fathoms.

On either side the line of the Andamans and Nicobars the sea rapidly deepens to 1,000 fathoms and thence on the west in the Bay of Bengal to over 2,000 fathoms within 60 miles of the Nicobars and probably within 100 miles of the Andamans; and on the east in the Andaman Sea to 2,000 fathoms within 85 miles of the Nicobars and within about 95 miles of the Andamans. The contours thus show beyond doubt the existence of a lofty range of submarine mountains between Cape Negrais and Acheen Head rising from the ocean depths up to 15,000 feet and nowhere less than 6,000 feet on the east, and up to 15,000 feet and nowhere less than 10,000 feet on the west, thus separating the Bay of Bengal from the Andaman Sea. Of this great Range 700 miles long, taking 100 fathoms as a base, the continental and island summits are shown in one central line north to south as (1) Cape Negrais (Arakan Yomas) and Preparis Islands, (2) Cocos and Andaman Islands, (3) Nicobar Islands, (4) Acheen Head (Sumatra). The Western Banks, the Sentinel Islands and Dalrymple Bank are lower summits to the west of the central line. According to my contours outlying summits of detached spurs of the central line to the east are Barren Island and the Invisible Bank. They also show that Narcondam and the submarine hill to its south-east are separated from the Central Andaman and Nicobar Range, being summits of outlying spurs of the Yomas attached to Cape Negrais. This last fact supports the old assumption that the dormant Barren Island volcano belongs to the *immediate* Sunda group of volcanoes, while the long extinct Narcondam Volcano belongs to the Pegu group, both belonging to the *general* Sunda group.

As the arguments derivable from the submarine contours have not so far as I know been hitherto worked out, and as they may be thus of some general interest, I attach a map of the contours and some detailed notes thereon. It must be remembered that much of the ethnographic, as well as the natural history,

speculation about both the Andamans and Nicobars depends on the assumed degree of their isolation from the Asiatic Continent.

Notes on the Ocean Contours.—(1) A narrow ridge runs between Great Nicobar and Acheen Head from ten to two miles wide with just less than 800 fathoms as the lowest depth of water on it.

(2) The Andaman Sea has been sounded to 2,000 fathoms about 84 miles east of Car Nicobar and the Bay of Bengal to well over 2,000 fathoms 61 miles east of Teressa. In the Andaman Sea the deep water of 2,000 fathoms or more does not run probably further north than 125 miles east of Port Blair. In the Bay of Bengal the deep water of 300 fathoms is probably distant about 100 miles west of the Andamans.

(3) Probably the deepest water between the Invisible Bank and the Andamans is under 900 fathoms, the Bank itself being the summit of a long hill running some 90 miles north-north-east to south-south-west directly on to Car Nicobar, the deepest point between it and Car Nicobar being some 900 fathoms.

(4) Probably the deepest water between Barren Island and the Andamans is under 1,000 fathoms, the island being the peak of a hill running some 35 miles north-east to south-west direct on to Rutland Island. The deepest point between it and the Invisible Bank is under 1,100 fathoms.

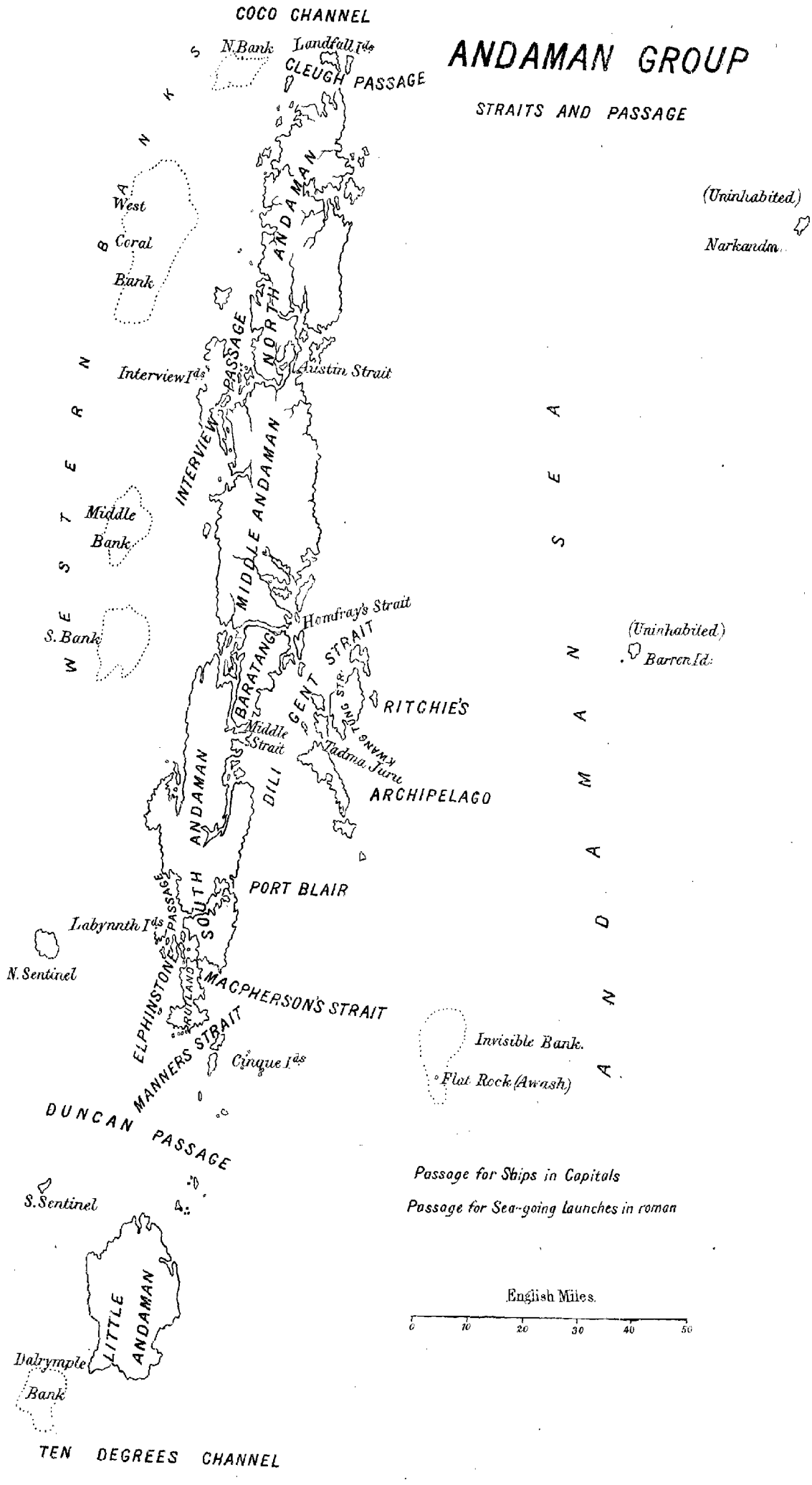
(5) At 94 miles due east of Stewart Sound is a patch of 377 fathoms, the summit of a submarine hill running apparently west to east some 45 miles. Between this hill and south-west to Barren Island and west to the Andamans are great depths probably over 1,500 fathoms. Between it eastwards to the Tenasserim Coast the depth is probably something over 1,200 fathoms. Between it and Narcondam 34 miles to south-west the depth is under 1,000 fathoms.

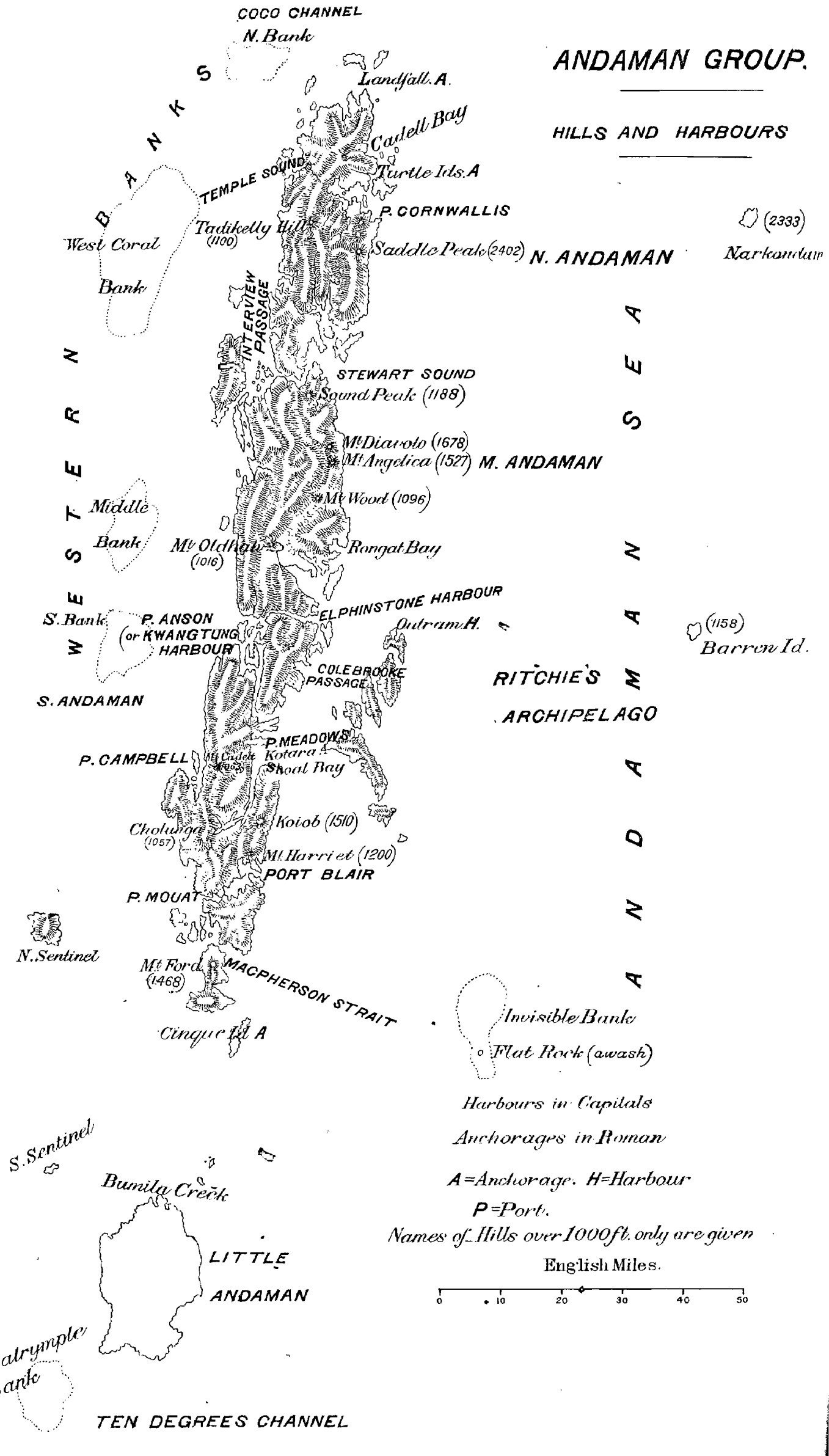
(6) Narcondam lies due south of Negrais Island and the 400 fathom contour runs round it and the coasts of the Andamans and Burma. The water between it and the Andamans, 71 miles to west, is deep, probably up to at least 1,200 fathoms. Between it and Barren Island, 74 miles to south-west, the depth is great, probably over 1,500 fathoms. Between it and the hill above mentioned to south-east the depth is under 1,000 fathoms. Between it and Negrais Island the deepest water is 411 fathoms in a hole to north-west, otherwise the depth here is not more than 362 fathoms.

(7) The 100 fathom line runs round all the Andamans, the Cocos and all the Western Banks, the two Sentinels and Dalrymple Bank. It runs also right round the Nicobars.

The Great and Little Andaman.—The main part of the Andaman group is a band of five chief islands, so closely adjoining and overlapping each other, that they have long been known as one, *viz.*, "the Great Andaman." The axis of this band, almost a meridian line, is 156 statute miles long. The five islands are (north to south)—North Andaman, 51 miles long; Middle Andaman, 59 miles; South Andaman 49 miles; Baratang, running parallel to the east of the South Andaman for 17 miles from the Middle Andaman; and Rutland Island, 11 miles long. Four narrow straits part these islands—Austin Strait between North and Middle Andaman; Homfray's Strait between Middle Andaman and Baratang and the north extremity of South Andaman; Middle (or Andaman) Strait between Baratang and South Andaman; Macpherson's Strait between South Andaman and Rutland Island. Of these only the last is navigable by ocean-going vessels. Attached to the chief islands are, on the extreme north, Landfall Islands, separated by the navigable Cleugh Passage; Interview Island, separated by the very narrow but navigable Interview Passage, off the west coast of the Middle Andaman; the Labyrinth Islands off the south-west coast of the South Andaman, through which is the safe navigable Elphinstone Passage; Ritchie's (or the Andaman) Archipelago off the east coast of the South Andaman and Baratang, separated by the wide and safe Diligent Strait and intersected by Kwangtung Strait and the Tadma Juru (Strait). Little Andaman, roughly 26 miles by 16, forms the southern extremity of the whole group, and lies 31 miles south of Rutland Island across Duncan Passage, in which lie the Cinque and other islands, forming Manners Strait, the main commercial highway between the Andamans and the Madras Coast.

Besides these are a great number of islets lying off the shores of the main islands.


ANDAMAN GROUP
STRAITS AND PASSAGE
COCO CHANNEL
N. Bank
Landfall Ids
CLEUGH PASSAGE
NORTH ANDAMAN
West Coral Bank
Interview Ids
PASSAGE
Austin Strait
INTERVIEW
MIDDLE ANDAMAN
Middle Bank
S. Bank
Homfray's Strait
BARATANG
GENT STRAIT
RITCHIE'S
ARCHIPELAGO
Middle Strait
Tadma Juru
DILI
SOUTH ANDAMAN
PORT BLAIR
Labyrnth Ids
N. Sentinel
ELPHINSTONE PASSAGE
MACPHERSON'S STRAIT
MANNERS STRAIT
Cinque Ids
DUNCAN PASSAGE
S. Sentinel
LITTLE ANDAMAN
Dalrymple Bank
TEN DEGREES CHANNEL
(Uninhabited)
Narkandm.
(Uninhabited)
Barren Id.
Invisible Bank.
Flat Rock (Awash)
Passage for Ships in Capitals
Passage for Sea-going launches in roman
English Miles.
0 10 20 30 40 50


ANDAMAN GROUP.
HILLS AND HARBOURS
COCO CHANNEL
N. Bank
BANKS
Landfall A.
Cadell Bay
TEMPLE SOUND
Turtle Ids. A
P. CORNWALLIS
Tadikelly Hill (1100)
West Coral Bank
Saddle Peak (2402)
N. ANDAMAN
(2333)
Narkandum
INTERVIEW PASSAGE
STEWART SOUND
Sound Peak (1188)
WESTERN
Mt Diavolo (1678)
Mt Angelica (1527)
M. ANDAMAN
Middle Bank
Mt Wood (1096)
Mt Oldham (1016)
Rangat Bay
ELPHINSTONE HARBOUR
S. Bank
P. ANSON (or KWANGTUNG HARBOUR)
Outram H.
(1158)
Barren Id.
COLEBROOKE PASSAGE
S. ANDAMAN
RITCHIE'S ARCHIPELAGO
P. MEADOWS
P. CAMPBELL
Mt Cadell (1053)
Kotara A.
Shoal Bay
Koiob (1510)
Cholunga (1057)
Mt Harriet (1200)
PORT BLAIR
P. MOUAT
N. Sentinel
Mt Ford (1468)
MACPHERSON STRAIT
Cinque Id. A
Invisible Bank
Flat Rock (awash)
Harbours in Capitals
Anchorages in Roman
A=Anchorage. H=Harbour
P=Port.
Names of Hills over 1000 ft. only are given
English Miles.
0
10
20
30
40
50
S. Sentinel
Bumila Creek
LITTLE ANDAMAN
Dalrymple Bank
TEN DEGREES CHANNEL

The Harbours.—The coasts of the Andamans are deeply indented, giving existence to a number of safe harbours and tidal creeks, which are often surrounded by mangrove swamps. The chief harbours, some of which are very capacious, are, starting northwards from Port Blair, the great harbour of South Andaman—*East Coast*, Port Meadows, Colebrooke Passage, Elphinstone Harbour (Homfray's Strait), Stewart Sound, Port Cornwallis, the last three are very large;—*West Coast*, Temple Sound, Interview Passage, Port Anson or Kwangtung Harbour (large), Port Campbell (large), Port Mouat, Macpherson's Strait. There are besides many other safe anchorages about the coasts for sea-going vessels: notably Shoal Bay and Kotara Anchorage in the South Andaman, Cadell Bay and the Turtle Islands in the North Andaman, and Outram Harbour and Kwangtung Strait in the Archipelago.

The Hills.—The islands forming Great Andaman consist of a mass of hills enclosing very narrow valleys, the whole covered by an exceedingly dense tropical jungle. The hills rise, especially on the east coast, to a considerable elevation; the chief heights being, in the North Andaman, Saddle Peak, 2,400 feet; in the Middle Andaman, Mount Diavolo behind Cuthbert Bay, 1,678 feet; in the South Andaman, Koiob, 1,505 feet, and Mount Harriet, 1,193 feet, the Cholunga range, 1,063 feet; in Rutland Island, Ford's Peak, 1,422 feet. Little Andaman, with the exception of the extreme north, is practically flat. There are no rivers and few perennial streams in the islands.

The Scenery.—The scenery of the islands is everywhere strikingly beautiful and varied, and the coral beds of the more secluded bays in its harbours are conspicuous for their exquisite assortment of colour. The scenery of the harbours has been compared to that of Killarney by Professor V. Ball, and no doubt they do recall the English Lakes. One view of Port Blair Harbour is strongly reminiscent of Derwentwater as seen from the Keswick end.

Surveys.—The whole of the Andamans and the outlying islands were completely surveyed topographically by the Indian Survey Department under Colonel J. R. Hobday in 1883—6 and a number of maps on the scale of two miles to the inch were produced, which give an accurate coast line everywhere and astonishingly correct contours of the inland hills, considering the difficulties presented by the denseness of the forests with which they are covered. For Port Blair and neighbourhood a series of maps on the scale of four inches to the mile were made. The exact latitude and longitude of Chatham Island in Port Blair Harbour were determined astronomically by Mr. Nicholson of the Great Trigonometrical Survey in 1861: latitude 11° 41′ 13″ N.; longitude 92° 42′ 44″ E. The marine surveys of the Andamans date back many years and one can go back to the days of Ritchie (1771) and of Blair and Moorsom (1788—96) for partial charts which are still usable. Brooker's surveys of 1867 added much knowledge about Port Blair, but the serious dangers of the western coral banks were not removed by surveys till 1888-9 under Commander A. Carpenter, when a great advance in the charts generally was made. His general chart is that now in use, corrected by subsequent surveys up to 1899. The coasts on the whole are fairly well charted, but some most necessary work still remains to be done before a voyage round these dangerous coral-bound coasts can be said to be free from anxiety. It is, however, worth noting that the long standing notice on charts that "the dangers of the coast of the North Andaman have not been surveyed" is now at last removed, and that the Coco Channel is made safe for ships.

II. Meteorology.

Commercial Value of the Meteorology.—Owing to the great value of the information to be obtained at the Andamans as to the direction and intensity of cyclonic storms and as to weather prognostications generally as regards the eastern and northern portions of India, a well appointed meteorological station has been established at Port Blair on Ross Island since 1868.

Two very serious considerations for commerce are involved here: *viz.*, timely and reliable warnings of storms in the Bay of Bengal and reliable weather forecasts. Accuracy in storm warnings and weather forecasts depends on the establishment of a number of meteorological reporting stations all over a given

area of sea and land. It is therefore not sufficient for accurate warnings and forecasts to have meteorological stations round the Bay; they must be also established if practicable within it. The Andaman and Nicobar Islands can provide a number of such stations right across the Bay from north to south.

The magnitude of the interests requiring accurate storm warnings can be gauged thus. In Bengal *excluding Madras and Burma*, about 4,400 vessels of a combined burthen of about 3½ million carrying tons, conveying 300,000 passengers and cargoes to the value of upwards of R11¼ crores annually, leave and enter the Bengal ports in the coasting trade alone. The ever increasing size of the vessels carrying the trade implies an ever increasing number of passengers and size of cargoes in each bottom and a corresponding increasing value of each individual ship and increasing importance in saving it from loss or damage. So also the magnitude of the interests requiring accurate weather forecasts is very great. Of industries directly depending on the rainfall in the Bay of Bengal:—jute exported from Bengal, raw and manufactured, has an average annual value of about R14¾ crores and the plant is grown on nearly 2 million acres; rice, as a staple food crop, in Bengal alone has an annual outturn of 20 million tons raised on between 30 and 40 million acres; tea has an average annual export in Bengal of about 7½ crores, and indigo of about three crores. Again the purchasing power of the native of Bengal depends on the state of the rice crop and hence the rate of piece-goods there depends so much on the rainfall that merchants closely watch it: this trade represents an average annual value of about 14 crores.

The great importance to commerce therefore of weather forecasts has brought about repeated attempts to connect the Andaman Islands with the continent by telegraphs, as otherwise the meteorological observations have merely a scientific value, being received in India too late for practical purposes. In 1867 a serious attempt at a cable to Port Blair failed owing to initial and maintenance costs involved and also the hilly nature of the sea-bottom about the islands. Since 1900 the question has been reopened with a view to establishing a connection with the islands by wireless telegraphy.

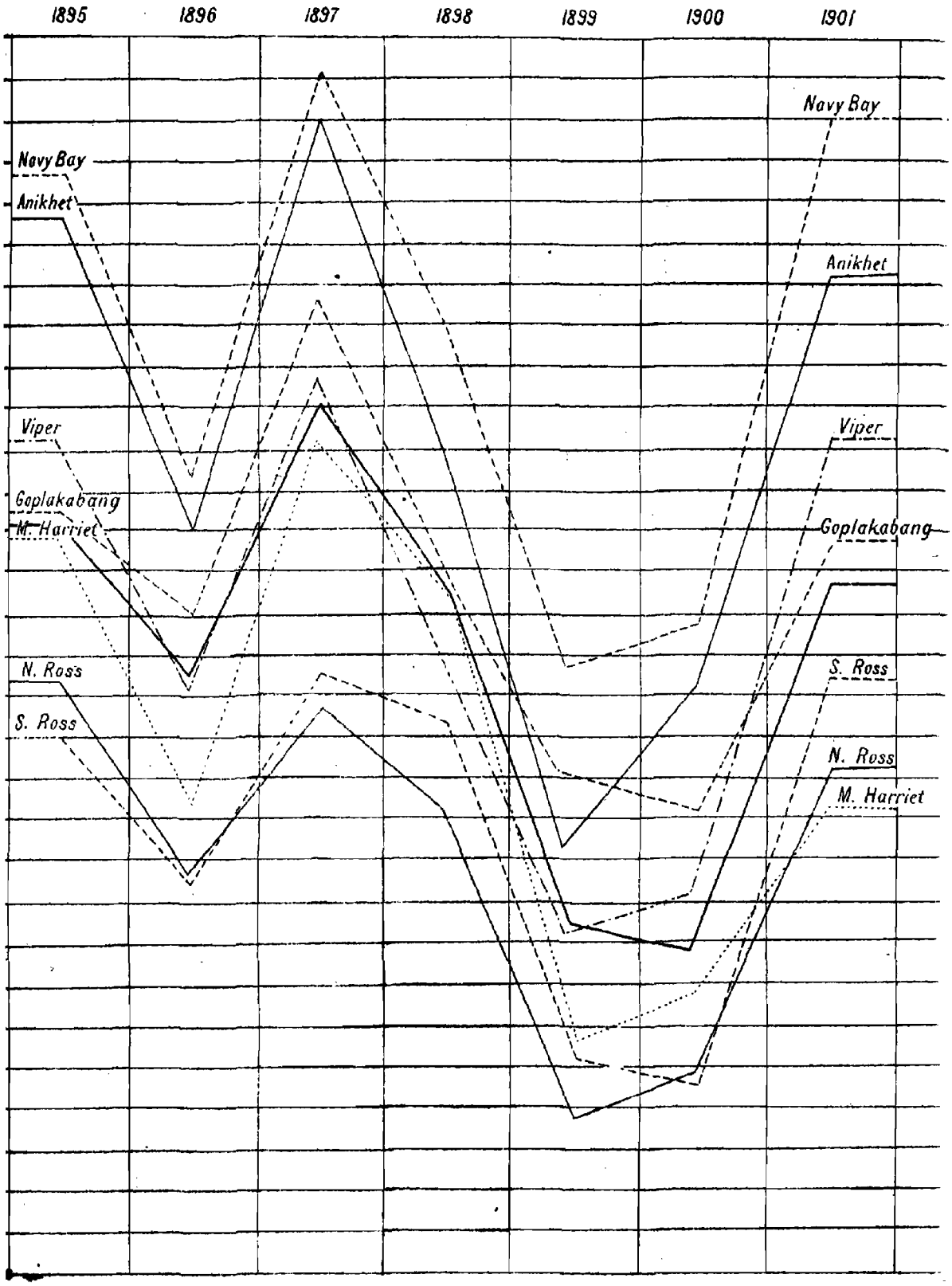
Climate.—Speaking generally, the climate of the islands may be described as normal for tropical islands of similar latitude. Warm always, but tempered by pleasant sea breezes: very hot when the sun is northing: irregular rainfall but usually dry during the north-east monsoon and very wet during the south-west: exposed to both monsoons and subject to violent weather with excessive rainfall, but to cyclones rarely, though within the influence of practically every cyclone that blows in the Bay of Bengal, hence the value of the islands from a meteorological point of view. Cyclones have been recorded in every month except February and heavy rain has fallen throughout the year, but cyclones are unusual except from May to November, the early part of November being the most likely season for them, and much rain is not usual from December to May.

Cyclonic Storms.—Accounts and records show that cyclonic storms struck Port Cornwallis in December 1792, the Archipelago in November 1844, and Port Blair in 1864 and November 1891. There are also abundant signs of a destructive storm between Stewart Sound and Port Cornwallis in 1893. The great storms of 1891 and 1893 travelled across the islands in a north-westerly direction creating havoc on both East and West Coasts. There is a full and valuable record of the disastrous storm of 1891 (*Cyclone Memoirs*, No. V., Government of India, 1893).

Rainfall.—The rainfall varies much from year to year and to an extraordinary extent at places quite near to each other. The official meteorological station is situate in by far the dryest spot in Port Blair. The official statistics as to rainfall for the past seven years are:—

1895.	1896.	1897.	1898.	1899.	1900.	1901.
125·64	107·28	136·41	127·22	87·01	83·28	132·59

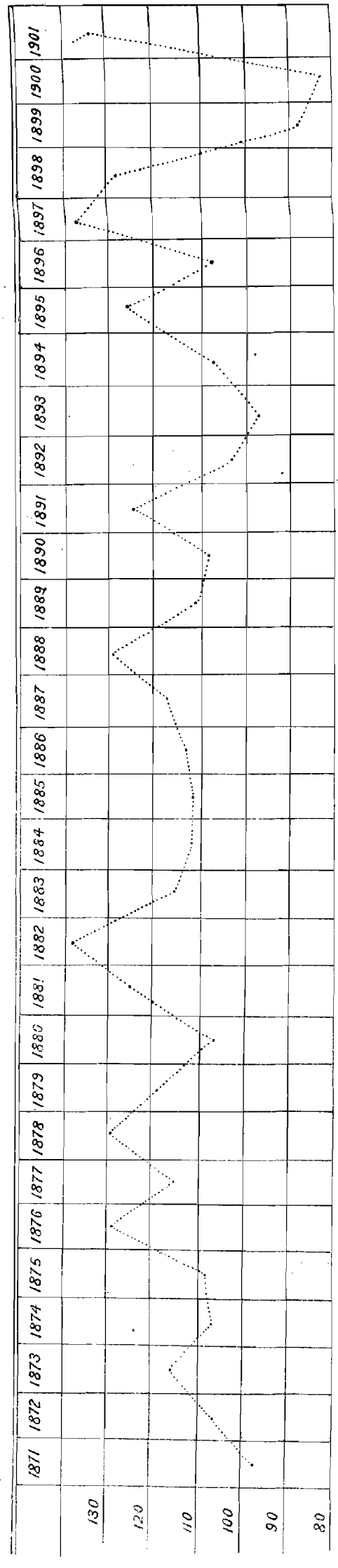
DIAGRAM SHOWING RELATIVE AND ANNUAL RAINFALL OF PLACES CLOSE TOGETHER ABOUT PORT BLAIR HARBOUR FOR SEVEN YEARS.



Broad line — Mean of all Stations.

Central Station (Official) South Ross from which:—

North Ross is distant	directly	¼	Mile	North ...	Height	150 ft.
Mount Harriet	,, ,,	3⅞	,,	North West	,,	1,200 ft.
Goplakabang	,, ,,	7¾	,,	North West	,,	sea level.
Viper	,, ,,	5	,,	West South West	,,	150 ft.
Anikhet	,, ,,	5¾		West North West	,,	100 ft.
Navy Bay	,, ,,	2¾		South West West	,,	200 ft.



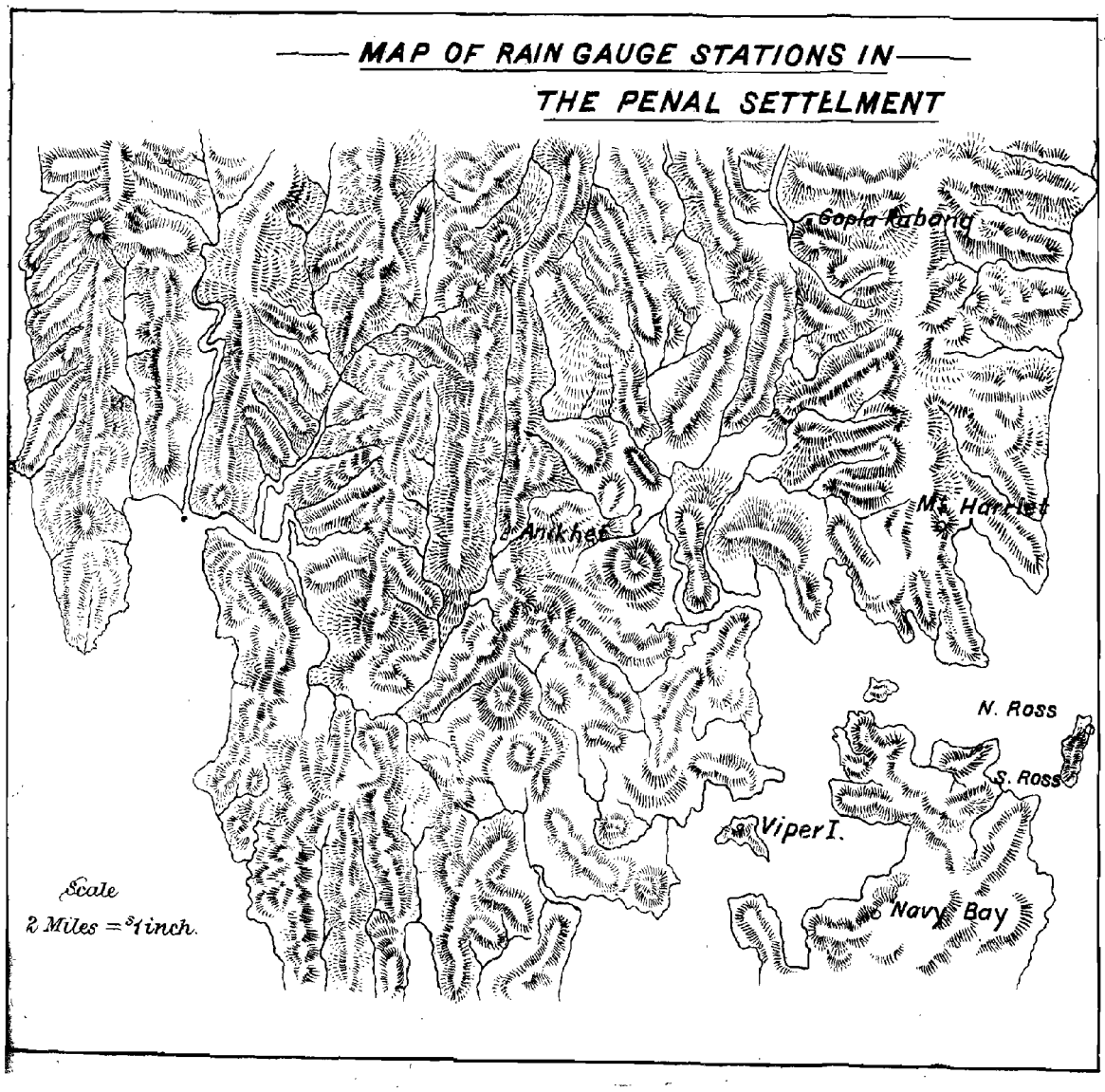
RAINFALL IN INCHES FOR 30 YEARS.

1871 – 1901.

1871	97.95
1872	106.55
1873	115.68
1874	106.45
1875	108.49
1876	129.97
1877	114.82
1878	128.88
1879	119.71
1880	107.46
1881	125.56
1882	137.67
1883	115.00
1884	110.75
1885	111.32
1886	112.50
1887	116.76
1888	128.27
1889	110.35
1890	100.57
1891	124.11
1892	102.25
1893	96.51
1894	111.79
1895	125.64
1896	107.28
1897	136.41
1898	127.22
1899	89.01
1900	83.28
1901	132.63

There are, however, altogether seven rain gauges maintained at Port Blair within an area of 80 square miles with these results :—

	1895.	1896.	1897.	1898.	1899.	1900.	1901.
North Ross . .	133·34	108·73	128·52	116·89	78·63	83·50	121·37
South Ross . .	125·64	107·28	136·41	127·22	87·01	83·28	132·59
Anikhet . . .	194·97	155·19	205·52	165·08	112·55	131·69	187·58
Goplakabang . .	158·86	145·10	184·92	151·70	122·88	115·48	153·56
Mount Harriett . .	154·66	117·08	166·62	148·14	88·95	93·40	115·89
Navy Bay . .	199·17	162·11	212·75	179·73	138·78	144·18	205·54
Viper . . .	166·95	131·50	169·14	140·60	102·57	106·08	166·27
Mean of all stations .	156·37	132·42	171·98	147·05	104·46	108·23	148·06



Weather.—Calm weather can be counted on in February to April and in October. Fogs and chilly night winds are common in January to March in the valleys and inner harbour and also after excessive rain. Off shore breezes at night and on shore breezes in the day are most marked during the calm weather, due to the difference in temperature of sea and land. March and April are often hazy. Magnetic variation in the Andaman sea in 1904, 0° 40′ East, decreasing annually 2′. The normal barometric readings vary between 29·873 and 29·722, being highest in February and lowest in June.

General Statistics.—General meteorological statistics for Port Blair for the last seven years are :—

	1895.	1896.	1897.	1898.	1899.	1900.	1901.
TEMPERATURE.							
Mean highest in shade	April 90·1	April 94·7	April 94·0	April 90·3	Mar. 91·8	April 94·1	April 95·1
Mean lowest in shade	Feby. 70·9	Feby. 71·7	Jany. 72·5	Jany. 70·5	Feby. 71·2	Dec. 72·9	Dec. 71·9
Highest in shade	April 95·2	May 96·9	April 96·8	April 93·8	April 95·8	April 97·0	April 97·1
Lowest in shade	Feby. 66·4	Feby. 66·9	Jany. 67·8	Mar. 63·2	Jany. 67·0	Jany. 68·0	Dec. 67·7
Dry bulb mean	84·6	85·5	85·2	84·3	84·8	90·6	91·7
Wet bulb mean	78·9	79·4	79·7	78·4	78·6	82·5	83·0
RAINFALL.							
Most wet days in a month	Aug. 29	Aug. 28	July 29	July 26	Sept. 27	June 27	Aug. 29
Heaviest fall in a month	June 26·29	May 27.55	July 30·97	May 40·58	Sept. 24·38	Sept. 15·44	May 20·81
Months without rain	Jany. Feby.	Feby. Mar.	January.	Feby. Mar.	*Nil.*	February	*Nil.*
Total wet days	193	178	196	160	177	162	188
WIND.							
N. N. E.	Jany., Feby., Mar., Dec.	Jany. Feby. Mar., Nov., Dec.	Jany., Feby., Dec.	Feby., Dec.	Feby., Nov., Dec.	Jany., Mar., Nov., Dec.	Jany. Feby.
E. S. E.	April, Oct., Nov.	...	Mar., April Nov.	...	April, Oct.	...	...
W. S. W.	May, June, July, Aug., Sept.	June, July, Aug., Sept.	May, June, July, Aug. Sept. Oct.	May, June, July, Aug., Sept.	May, June, July, Aug., Sept.	May, June, July Aug., Sept.	May, July. Aug., Sept. Oct.
W. N. W.	...	April, May, Oct.	...	...	...	April	June.
E. N. E.	...	...	...	Jany., Mar., April.	March.	...	...
S. S. E.	...	...	...	Oct., Nov.	...	October	April, Nov.
N. E.	...	...	...	...	January	Febrnary	Mar., Dec.
CLOUDS.							
Clouds are usually	P. K. & C. P. K. & P. C. *	C. & K.—P. K. & P. C. *	P. K. & P.C. *	Cu. N. Acu. Ci *	Cu. N. Acu. Ci *	Cu. Acu. N. Ci *	Cu. Acu. N. Ci *

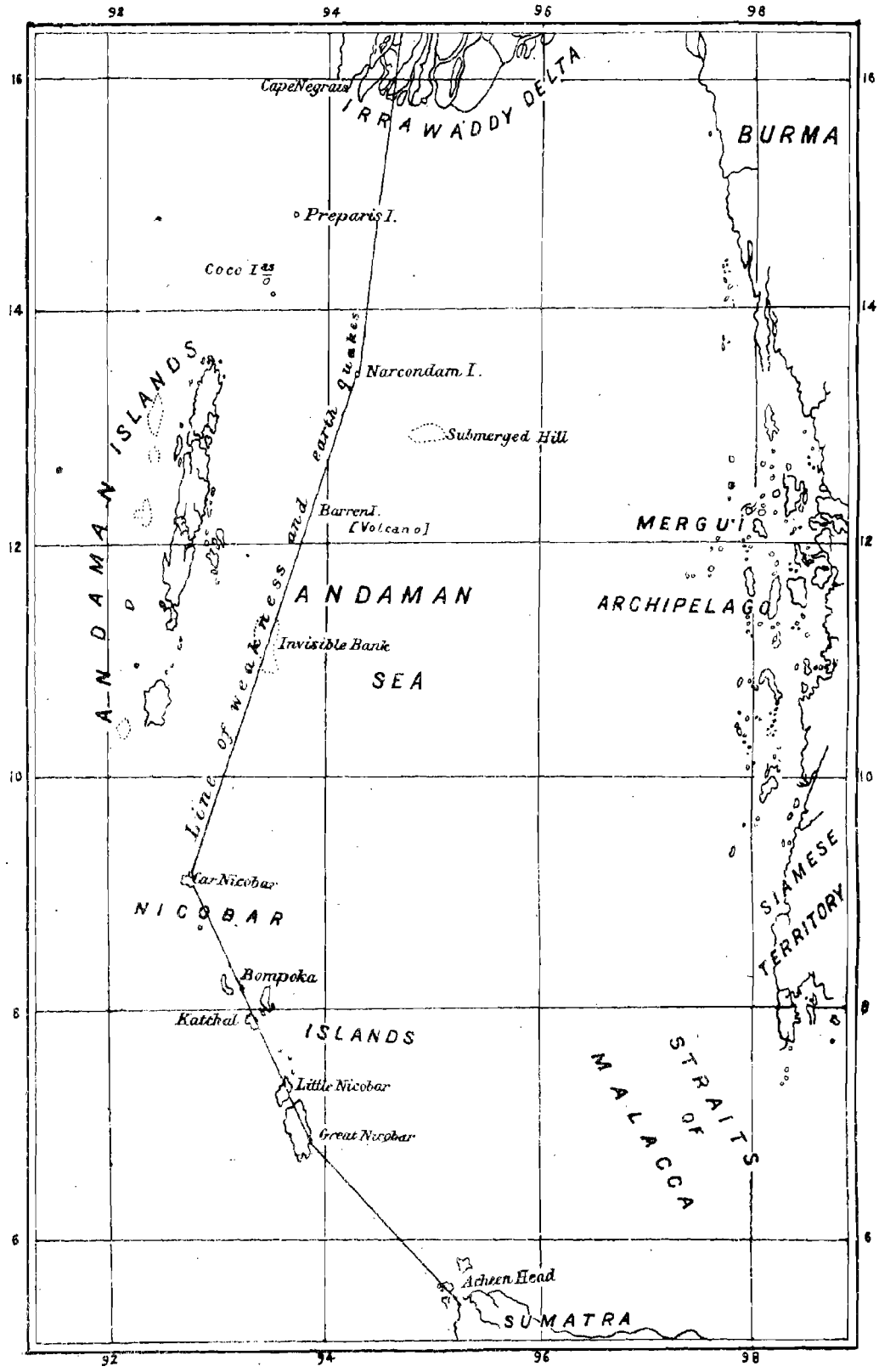
* P. K=Pallio-Cumulus : C & Ci=Cirrus : P. C.=Pallio-Cirrus : K.=Cumulus : Cu. N =Cumulo-Nimbus : Acu.=Alto-Cumulus.

Tide.—The tidal observatory with self-registering gauge on Ross Island, established in 1880, is in latitude 11° 41′ N., longitude 22° 45′ E. The Port Blair tide tables are printed by authority from local data. The heights are referred to the Indian spring low-water mark, which for Port Blair is 3·53 feet below mean sea level. The mean range of greatest ordinary springs is 6·6 feet. The highest high-water and the lowest low-water are 8·0 feet above and 0·8 feet below the datum above mentioned. The apparent time of high-water at the full and change of the moon is 9h. 36m. At various points of the great harbour of Port Blair the actual times for the tide depend on wind, strength of current, and distance from the open sea. The average variation in time of high tides at the several important points is from 18m. to 57m. later than Ross and in height it is from 20 inches less to 17 inches more than Ross. Wind and current will at these points affect time by as much as 29m. either way, and height by as much as 8 inches either way.

III. GEOLOGY.

General Geology.—There has been no geological survey of the Andamans, but expeditions by experts have been officially undertaken to make preliminary examinations of the islands. These examinations have been carried on under practical difficulties of every kind, not the least being the dense and lofty forests with which the entire islands are covered. Judging by the reports of such

MAP OF THE EARTHQUAKE LINE IN THE ANDAMAN SEA.



expeditions, the submarine ridges forming these islands contain much that is geologically characteristic of the Arakan Yomas and formations common also to the Nicobars, to the islands off Sumatra and to Sumatra itself. The older rocks, common also in the same form to the Nias Islands on the West Coast of Sumatra are probably early tertiary or possibly late cretaceous, but there are no fossils to indicate age. The newer rocks common to the Nicobars and Sumatra are in Ritchie's Archipelago chiefly and contain radiolarians and foraminifera. There is coral along the coasts everywhere and the Sentinel Islands are composed of the newer rocks with a superstructure of coral, but no atoll is known in the vicinity of the Islands. There is a good deal of serpentine rock, also some jasper, chromite, and copper and iron pyrites, and small pockets of coal. About Port Blair a firm grey sandstone identifiable with the Negrais rocks occurs with interbedded slaty shales, and not infrequently nests of coaly matter and occasionally of conglomerate and pale grey limestones. This sandstone is the characteristic rock of the neighbourhood and is generally, if not always, non-calcareous. In the Archipelago and over a large area in the Andamans, the islands are formed of soft limestones made of coral and shell sand, soft calcareous sandstones and soft white clays, with occasionally a band of conglomerate. Green and red jaspery beds, similar to those of Manipur and Burma and the Nicobars, are found, which may belong to the same series as the sandstones and shales. On Entry Island in Port Meadows are beds of probably volcanic origin, perhaps later than the Port Blair sandstones. Intrusive rocks of the serpentine series and a scoriaceous rock resembling lava occur in the Cinque Islands, Rutland Island, and in spots on the South and Middle Andamans. Hard breccias of volcanic origin are found at Namunaghar in the Penal Settlement and yield an excellent building stone. Good red clay for bricks is found abundantly in pockets. Lime of the best quality is obtained from old coral, but a workable limestone exists in limited quantities. A pretty reddish building marble is also found. Red ochre (*kciob*) is found in considerable quantities in pockets and used, when mixed with gurjan oil, as an excellent covering for shingled roofs. Mica in probably workable quantities has been found about Navy Bay Hill in Port Blair Harbour.

The Subsidence of the Islands.—A theory of a still continuing subsidence of the islands was first formed by Kurz on his investigation of the vegetation in 1866 and has since been confirmed by Oldham in his geological report of 1884, though with some reluctance owing to the fact that the Arakan Coast to the north and the Nicobars are showing signs of recent elevation. The subsidence seems to be of recent origin, and signs of its continuance, most markedly on the East Coast, are to be found at several places :—Port Mouat, Ranguchang on the East Coast of the South Andaman near Port Blair, Outram Harbour and Havelock Island in the Archipelago, the northern ends of the Little Andaman, the North Sentinel, and the North Andaman. The extremely interesting islands of Narcondam and Barren Island are volcanoes of the general Sunda group, the extinct volcano of Narcondam belonging apparently to what is known as the Pegu group and the quiescent Barren Island to the Sunda group proper. Barren Island was last in eruption in 1803, but there is still a thin column of steam from a sulphur bed at the top and a variable hot spring at the point where the last outburst of lava flowed into the sea, showing lately a temperature of 107° Fahr.

Earthquakes.—Although the Andamans lie along or at any rate are close to a recognised subterranean line of weakness, earthquakes of great violence have not so far in the short time of British occupation been recorded. Recorded dates of earthquakes are August, 1868 ; February, 1880 ; and then shocks at times till December 31st, 1881 ; February, 1882 ; August, 1883 ; July, 1886 ; July, 1894 ; October, 1899. The sound of the great seismic disturbance in the Straits of Sunda on August 26, 1883, was heard at Port Blair at 9 P.M. of that day and the extra tidal waves caused thereby were felt at 7 A.M. on the 27th. The great Assam Earthquake of 1897 was not felt at all.

It is possible that the reason for the Andamans escaping violent earthquakes while the Nicobars are subject to them is that they are just off the line of greatest weakness, which may run from Sumatra through Great and Car Nicobar, Barren Island, Narcondam to the Arakan Yoma.

Marine Fauna.—The marine fauna of the Andamans is of unusual interest and the aquarium on Ross Island under construction should prove of great scientific value. On examination the marine life goes to show what other physiological facts have proved—the close connection of the Islands with both Burma and Sumatra and the distant alliance with the Indian Peninsula. The land fauna, in several particulars, shows that the Andamans are closely allied zoologically with their neighbours, Arakan and Burma.

Economic Zoology.—The economic zoology of the islands has been thus summarised by Major A. R. S. Anderson.

"The coral reefs and dead shells afford an immense field for obtaining a very fine quality of lime, which has for many years past been used in the Andamans in building operations. Sea cucumbers or trepang are collected, dried and exported to the Chinese market. Wax and honey are obtainable in fairly large quantities in the forests; the honey is, however, of rather poor quality. Cuttle bones in large numbers can easily be picked up all round the islands wherever there is a sloping shore. Ornamental shells can be obtained with great ease in the rocky pools, reefs and shallow waters. Edible oysters are very plentiful. Pearls and mother-of-pearl oysters are occasionally obtained, but no systematic search for these valuable products has ever been instituted. The edible turtle and tortoise-shell turtle are plentiful. The former are sparingly exported and the shell of the latter is collected and exported. Edible birds'-nests of the finest quality are found in many of the caves in both groups of Islands. They are exported to the Chinese market."

Conchology.—The existing sea shells have been extensively collected by local residents for many years past, but there does not appear to be anything specially distinctive about them, and the various species have been incorporated into the general standard works on conchology. The presence of *scalaria preciosa* and of *argonauta argo* is noteworthy. But the land shells are more distinctive in their nature, and seem to corroborate the evidence procurable from the flora and the fauna of the Islands. They have received a good deal of attention both from scientific expeditions and from local collectors. There was a well appointed expedition fitted out by the Danish Government in 1846, in the frigate *Galathea* in which the zoologist, Reinhardt, first paid much attention to the mollusca. The conclusion apparently to be drawn from such knowledge as has been accumulated is, on the high authority of Godwin-Austen, that there is a distinct and close relationship in the past shown with Burma and Arakan by many closely allied species, and equally marked is the paucity of forms having an alliance with Peninsular India. On the other hand, some species are common to these islands and to Sumatra and Java.

Forests.—A section of the general Forest Department of India has been established in the Andamans since 1883 and, in the neighbourhood of Port Blair, 156 square miles have been formally set apart for regular forest operations. The activity of the department is strictly limited by the amount of convict labour from time to time available, as there is no indigenous labour whatever. The annual value of forest produce used in the Settlement during the last seven years has averaged ₹1,13,683, and the annual value of exported timber has averaged for the same period ₹1,69,633. This last product is increasing rapidly in value.

The Timber and its Economic Uses.—The timber available for economic purposes is both plentiful and various. It is divided for commercial objects into three classes, known by their commercial names thus :—First class, Padouk, Koko, Chuglam, Marble-wood, Satin-wood; Second class, Pyimma, Bombway, Chai, Lakuch, Lalchini, Pongyet, Thitmin, Mowha, Khaya, Gangaw, Thingan; Third class, Didu, Ywegyi, Toungpeingyi and Gurjan. Padouk is the chief timber for export to Europe at a very high price per ton, but other first class timbers also find a market there. Third class timbers find a ready market in Calcutta, while the second class are extensively used locally.

The trees chiefly used as timber by the Andamanese for their own purposes are mangrove, padouk, *melochia velutina*, some of the sterculiaceæ, *bombax insigne*, *areca laxa*, pandanus, bamboo, *anadendron paniculatum*. They also gather and eat the fruit of a great variety of trees and use the leaves of the following for medicinal purposes :—*trigonostemon longifolius*, *alpinia* species. *Calamosagus laciniosus*.

Padouk (*pterocarpus dalbergioides*) can be used for buildings and boats, for furniture and fine joinery, and for all purposes to which teak, mahogany, hickory, oak, and ash are applied. It seasons quickly and easily, and is immune from the attacks of white ants and borers, except the marine worm (*teredo navalis*), and from rot of all kinds: colour, pale and dark red and brown. Koko (*albizzia lebbek*) is used for battens and furniture; colour, greenish grey, light brown and chocolate with dark markings. White Chuglam (*terminalia bialata*) and black Chuglam (*myristica irya*) are used for furniture, oars, shafts, and planking; colour, grey with darker markings. Marble or zebra wood (*diospyros kurzii*) makes furniture and joinery; colour, ebony with streaks of grey or light brown. Satin-wood (*murraya exotica*), which is not the satin-wood of Ceylon (*chloroxylon swietenia*), makes delicate furniture; colour, yellow. The proper names for the woods of the second class are as follows:—Pyimma, *lagerstræmia hypoleuca*: Bombway, *terminalia procera*: Chai, *alphonsea ventricosa*: Lakuch, *artocarpus lakoocha*: Lalchini, *calophyllum spectabile*: Ponyet, *calophyllum inophyllum*: Thitmin, *podocarpus neriifolia*: Mowha, *mimusops littoralis*: Khaya, *mimusops elenchi*: Gangaw, *messua ferrea*: Thingan, *hopea odorata*. These are used for a great variety of economic purposes locally connected with the building, ship and carriage making, furniture and joinery trades. Of the third class timbers, Didu (*bombax insigne*) is used for tea boxes and packing cases; Toungpeingyi (*artocarpus chaplasha*) for cases and planking; Ywegyi (*adenanthera pavonina*) for inferior cabinet furniture; Gurjan (*dipterocarpus turbinatus*) for slabs and planking and wood-paving. Lakuch and Ywegyi yield a yellow dye, Khaya the pagoda gum of Madras, Gurjan a resin and the well known oil.

The great mangrove swamps supply unlimited fire-wood of the best quality, and the bark of the trees a tan, as does also that of the bombway. The best mixture for steeping wooden shingles, is 3 lbs. of gurjan oil, 1 lb. of crude petroleum, 1 lb. of red ochre or metallic paint: the first and third ingredients are produced in the Andamans. Other minor products of the forests are several species of bamboo and cane and two thatching palms, *nipa fruticans* and *licuala peltata*. The cane roots are largely used in Calcutta for walking sticks: the majority of those sold by street vendors there from 4 annas to 8 annas each are from the Andamans. The inner bark of the *sterculia villosa* is used for making elephant harness for dragging timber, and the long climbing canes for ferry ropes and boat fenders. As regards general capabilities the Andaman forests, in addition to the invaluable and largely spread padouk, there is an extremely abundant supply of gurjan, gangaw (the Assam iron-wood) suitable for sleepers, and didu for tea boxes. Labour only is required to bring them on to the suitable markets. Safe anchorages are numerous and there is no difficulty in providing convenient points at which to ship the timber when extracted, especially as the localities of the valuable timbers are situate on, or near to, navigable creeks leading direct to the sea and thus rendering the forests capable of easy and economical working.

Imported Flora.—Both Kurz and Prain have written elaborately on the imported flora of the Andamans, and among the intentionally introduced plants and trees may be mentioned tea (*camellia theifera*), Liberian coffee (*coffea liberica*), Cocoa (*theobroma cacao*), Ceara rubber (*manihot glaziovii*) which has not done well, Manilla hemp (*musa textilis*), teak (*tectona grandis*), cocoa-nut (*cocos nucifera*), besides a number of shade and ornamental trees, fruit trees especially of the anti-scorbutic kinds, vegetables and garden plants. Among the shade trees, the most interesting is the flourishing rain-tree (*pithecolobium saman*) of the West Indies and American Continent, and among the vegetables the Otaheite potato (*dioscorea species.*). An attempt has also been made to introduce the Bahamas aloe (*agave sisalana*), but though it has flowered and given out bulbils in quantities, success is not yet assured. Tea is grown in considerable quantities and the cultivation is under a department of the Penal Settlement. The outturn for the last seven years has been on an average 2,519 chests per annum.

General Character of the Forests.—Generally the forests are filled with ever-green trees covered all over with climbers, but patches of deciduous forest

occur, sometimes over large tracts, conspicuous in the dry season when the leaves are off the trees. The huge buttressing of several species is a peculiar feature, and so is the growth of the forest in certain parts in belts, dependent apparently on the soil below: *e.g.*, the tracts of the bamboo (*bambusa schizostachyoides*) which almost exclusively occupy the indurated chloritic rock. Aborescent *euphorbias*, screw-pines (*pandanus odoratissimus*), and large cycads give on the coasts a remarkable appearance to the forests. Several palms are commonly seen, though the cocoanut is not indigenous. The general character of the forests is Burmese, with an admixture of Malay types. In the cleared places about Port Blair the grazing appears to be abundant, but is not really so, owing to the action of two destructive weeds: the needle bearing grass (*avena fatua*), which is pretty but not edible by any kind of food animal and being of a stronger growth than ordinary grazing grass supplants it wherever it is not rigourously kept down; and the sensitive plant (*mimosa pudica*), an imported nuisance, which rapidly covers all open and low lying places and is edibile only by goats.

IV. History.

Ancient Notices of the Islands.—The existence of the islands now known as the Andamans has, owing to the ancient course of trade, been reported from quite early times, though which of Ptolemy's island names ought properly to be attached to them may still be regarded as a moot point. Gerini, in his ingenious paper, *Notes on the Early Geography of Indo-China*, (*J. R. A. S.* 1897, p. 551ff) gives Bazakata for the Great Andaman, Khaline for the Little Andaman, Maniola for Car Nicobar, and Agathodaimonos for Great Nicobar. In the mediæval Latin editions of Ptolemy a remark somewhat as follows often appears opposite Bazakata:—"*cuius incolæ vocantur Aginatæ qui nudi semper degere feruntur, in hac conchæ sunt multæ.*" While it is on Maniola that the people are called *anthropophagi*. Even if one is inclined to accept this plausible theory, it is nevertheless, as will be seen from what follows, probable that Yule is right in his conjecture that Ptolemy's *Agathou daimonos nesos* preserves a misunderstanding, as perhaps does also the contemporary Aginatæ (with its later corruptions Allegate, Alegada on maps) for its inhabitants, of some sailors' term near to the modern Andaman. The old error that Ptolemy's maps were drawn by Agathodæmon, the grammarian of the 5th Century, A.D., is repeated in Portman's *History of our Relations with the Andamanese*, 1899, p. 50 and elsewhere.

Little Andaman, as a name, has a curious and obscure history on the old maps. In some of them we find Isle d'Andemaon (and Andaman) and also Isle de Maon (and Man), as if "Andaman" was the Great Andaman and "Man" the Little Andaman. Then in maps we have Chitre Andaman 1595, 1642: Chique Andemaon 1710: Cite Andemaon 1710, 1720 and Crita I. 1720 obviously corrupted out of Chitre, Chique and Cite. I have seen also Cite d'Andaman responsible for a town or city in the Andamans! And it is just possible that Chique Andemaon is responsible for the modern Cinque Islands between Great and Little Andaman, which are not five but obviously two islands. Chetty Andaman survived till 1858. Little Andaman, in its modern form, does not appear till the maps of Blair in 1790 odd.

Origin of the name.—The Chinese and Japanese knew the Islands respectively as Yeng-t'o-mang and Andaban in the first millenium A.D. (*vide* Takakasu's Edition of I-tsing pp. xxx and xxviii ff) which clearly represent the Andaman of the *Arab Relations* of 851 A.D. Then comes Marco Polo with his Arabic dual form Angamanain in 1292. After which we have Nicolo Conti in 1430 with Andemania, and after him almost every eastern traveller and mapmaker with some form of "Andaman." All these terms seem obviously to be based on the Malay name for the islands, as the Malays of the Peninsula have, for many centuries, used the islands for their piratical practices and for a trade in Andamanese slaves to their own country and Siam (this up to about 1860) and have known them by the term Handuman, which most likely preserves the very ancient Hanuman (monkey, *scil.*, savage aborginal antagonist of the Aryans) so well-known to the Indian Epics and carried down to the Malays in story and translations.

In the great Tanjore inscription of 1050 A.D. the Andamans are mentioned under a translated name along with the Nicobars, as Timaittivu, "Islands of Impurity" and as the abode of cannibals. In the Chinese *History of the T'ang Dynasty* (618-906 A.D.) they are called the land of the Rakshasas, and the Andamanese are to-day regarded as Rakshasas (or ogres, *i.e.*, traditional savage antagonists of the Aryans) by the Natives of India on being first seen, and were so called at once when they appeared in the streets on a visit to Calcutta in 1883. As the abode of the Rakshasas the Andamans were also known to the Southern Indians in mediæval times and this persistence in regarding the Andamanese as the Rakshasas or their descendants confirms the ancient derivation of "Andaman" as a name from Hanuman through Malay Handuman.

The Andamanese have returned the compliment and know all Orientals as Chauga or ancestral ghosts, *i.e.*, demons, and have preserved an ancient knowledge of them in a term for trepang or sea-slug as the "Oriental's slug," the collection of this valuable edible and of the equally valuable birds'-nests being one object of the visits of the Malays, Burmese and Chinese in days gone by, in addition to trapping slaves, which last practice no doubt had something to do with the savage hostility of the Andamanese towards all who landed on their shores.

Mediæval and Modern Notices of the Islands.—The notices of the Islands by the old travellers are continuous, and they regularly appear in some shape or other on all maps from the "Ptolemies" of the 15th-16th Century onwards, till we reach the middle of the 18th Century, when the East India Company's and Royal Naval commanders and surveyors began to make accurate reports of parts of the coasts in charts preserved for us in the works of the indefatigable Dalrymple. Owing to the piracies and ill-treatment of shipwrecked and distressed crews, the Company under Lord Cornwallis commissioned the great surveyor Archibald Blair in 1788 to start a Settlement on the ordinary lines, to which convicts were afterwards sent as labourers. Blair, with the acuteness he shows in all his work, fixed upon the harbour he called Port Cornwallis, but now known as Port Blair, for the Settlement and began his labours there in 1789. The Settlement flourished under him at that spot, but was removed in 1792 for strategical reasons to the present Port Cornwallis, where it gradually perished miserably in 1796 from the effects of a bad, unhealthy site and want of experience of the climate. Here it was under Major Kyd. Blair's and Kyd's *Reports* have all been preserved in the *Bengal Consultations* and are published in the *Indian Antiquary*, vols. xxviii *et seq.*

Modern History of the Islands and People.—Thereafter notices of the Andamans are not numerous, but they must have occupied the Government attention, for a formal *résumé* of information was officially drawn up in 1802. In 1824 the fleet, formed for the attack on Burma, made its rendezvous at Port Cornwallis. In 1825 J. E. Alexander, *Travels from India to England*, gives an interesting account of a landing at the Little Andaman. In 1836, Malcom, the missionary, notices the Andamans in his *Travels in Southern Asia*. In 1839, Dr. Helfer, the geologist, was murdered north of Port Cornwallis. In 1844 the transports *Briton* and *Runnymede*, from Sydney and Gravesend, respectively, were wrecked together on the Archipelago in a cyclone on 12th November. They contained detachments of the 10th, 50th and 80th Regiments, and the full record of the occurrence that has been left affords a fine example of pluck, endurance and resource in a great emergency. In 1850, a Mr. Quigley from Moulmein wrote a misleading and mischievous account of a visit to Interview Island. There is preserved an interesting account of the wreck of the *Emily* in 1849 off the West Coast and of the subsequent efforts to assist the crew. On this occasion the second mate was murdered by the aborigines, and there are records at this period of other murders dating before 1848 and continuing on till 1856. These led to the second occupation of the Islands, a step which was hastened by the outbreak of the Mutiny in 1857. This event threw a large number of mutineers, deserters and rebels on the hands of the Government, with whom it was difficult to deal, and in November of that year it was finally decided to send them to the Andamans to start the Settlement. The Government sent the "Andaman Committee" to make a preliminary exploration, with Dr. Mouat as president, and this Committee, in a *Report* remarkable for its common sense, fixed upon Port Blair as the site of the Settlement. Upon this report and an

equally able report by Captain Hopkinson, Commissioner of Arakan in 1856, the great experiment in treating convicts was commenced, one of the last acts of the East India Court of Directors being the formal confirmation of the Indian Government's proceedings. In 1872 the Andamans and Nicobars were formed into a Chief Commissionership, and in that year occurred the one event of general importance that has made the Andamans well known: the murder of Lord Mayo, Viceroy of India, by a convict while on a visit of inspection to the settlement, for the welfare of whose convict population he had worked so sympathetically.

CHAPTER III.

ETHNOGRAPHY.

I. The Race.—The Affinities of the Race—Its Antiquity—Early Descriptions—The Charge of Cannibalism—The Language of the Aka-Beada Tribe used in the Report—The Twelve Tribes—Their Division into Three Groups—The Distinctions between the Groups—The Long-shore and Jungle Andamanese—The Former Isolation of the Tribes—Their Sympathies and Antipathies—Fighting Capacity—The Hostile Jarawas—Colebrooke's Knowledge of them (1789)—Explanation of the Name Mincopie for the Andamanese—Relations with the English—Jarawa Raids.

II. Physical Characteristics.—Portman and Molesworth's enquiries—Man's enquiries—High Temperature—Breathing—Age—Reproduction—Endurance—Food—Skin—Hair—Bodily Parts—Diseases—Medicine—Appearance.

III. Mental Characteristics.—Sense Development—Character—Mental Capacities—Social Emotions—General Capacities.

IV. Habits and Customs.—Dwellings—Government—Religion—Superstitions—Mythology—Initiatory Ceremonies—Amusements—Music—Song—Games—Naming of Children and Adults—Marriage Relations—Death Ceremonies.

V. Arts.—Stone Implements—Weapons—Domestic Arts—String and Netting—Weaving—Pottery—Wool and Cane work—Ornamentation, Personal and Domestic.

I. The Race.

The Affinities of the Race.—The Andaman Islands, so near to countries that have for ages attained a considerable civilisation and have been the seat of important empires, and close to the track of a great commerce which has gone on for at least 2,000 years, continue to our day the abode of savages as low in civilisation as almost any known upon earth, though close observation of them discloses the immense distance between them and the highest of the brute beasts in mental development, one most notable fact being that they eat nothing raw, cooking all their food however slightly and making pots for the purpose, and this from time immemorial.

As to what general variety of the existing human beings the Andamanese belong, it can be clearly predicated of them that their various tribes belong to one people, speaking varieties of one fundamental language, and that they are Negritos. Many theories have been advanced as to their affinities; the most credible being that they are connected with the Semangs of the Malay Peninsula and the Aetas of the Philippines, and the silliest, though not the least persistent, that they are descendants of shipwrecked cargoes of African slaves. On the whole the safest thing to say about them is that they are probably the relics of a bygone Negrito race, now represented by themselves, the Semangs, and the Aetas, that in very ancient times occupied the south-eastern portion of the Asiatic continent and its outlying islands before the irruptions of the oldest of the peoples, whose existence or traces can now be found there. In this view the Andamanese are of extreme interest as preserving, owing to an indefinite number of centuries of complete isolation, in their persons and customs the last pure remnant of the oldest kind of man in existence. The possibility of their representing the archaic type of the Negrito and the consequent extreme ethnological interest they arouse was long since pointed out by Sir W. Flower.

It is to be noted however that Professor Owen considered them to be not connected on anatomical grounds with the people of any existing continent. A notice of the points on which Semangs and Andamanese agree and differ will be found in Appendix A.

The antiquity of the Andamanese on their present site is proved by their kitchen-middens, rising from 12 to 15 feet and more in height, and in some cases having fossilised shells at the base. As has been already noted, the kitchen-middens show that the Andamanese now gets his food just as he did in the days when the now fossil shells contained living organisms.

The largest and traditionally the oldest, the original, home of the race by a consensus of Andamanese opinion and worth scientific exploration (any other to be greatly deprecated), is the kitchen-midden of Wota-Emi on Baratang in Elphinstone Harbour on the east coast of the South Andaman.

In reference to the kitchen-middens it is worth noting that all Andamanese tradition commences with the cataclysm accompanied by a subsidence of a large portion of the surface of their old country already noticed, and the people point to certain ancient kitchen-middens, such as that at Port Mouat, on the sea level to prove it. They say that these were commenced by the survivors of the cataclysm and that the sites were previously high up on the mountain sides, where no one could build a kitchen-midden.

Early Descriptions.—I-Tsing, the Chinese Buddhist monk, in 672 A. D. (Takakasu's Ed. p. xxx) mixed up in his account of his travels the Andamanese with the Nicobarese, and describes them thus :—

"The men are entirely naked while the women veil their person with some leaves. If the merchants in joke offer them their clothes, they wave their hands (to tell that) they do not use them."

But the earliest distinct notice of the Andamanese is in that remarkable collection of early Arab notes on India and China (851 A. D.), which was translated by Eus. Renaudot and again in our own time by M. Reinaud. It accurately represents the view entertained of this people by mariners down to our own time.

"The inhabitants of these islands eat men alive. They are black with woolly hair and in their eyes and countenances there is something quite frightful * * * they go naked and have no boats. If they had they would devour all who passed near them. Sometimes ships that are windbound and have exhausted their provision of water touch here and apply to the natives for it; in such cases the crews sometimes fall into the hands of the latter and most of them are massacred."

This traditional charge of cannibalism still persists, though it is now, and almost certainly has always been, entirely untrue. Of the massacre of shipwrecked crews up till quite recent times there is no doubt; but the policy of conciliation, which has been unremittingly pursued for the last forty years, has made the coasts quite safe for the shipwrecked, except at points where the Jarawas touch the coast and the wilder Önges reside, the south and west of Little Andaman, the North Sentinel Island, south of Rutland Island and Hut Bay on its western coast, Port Campbell and some few miles to the north of it on the west coast of the South Andaman. Everywhere else shipwrecked mariners would find the people not only friendly and helpful, but likely to give notice to Port Blair at once of their predicament.

Charge of Cannibalism.—The charge of cannibalism seems to have arisen from three observations of the old mariners. The Andamanese attacked and murdered without provocation every stranger they could on his landing; they burnt his body (as they did in fact that of every enemy); and they had weird all-night dances round fires. Combine these three observations with the unprovoked murder of one of themselves and the fear aroused by such occurrences in a far land in ignorant mariners' minds, century after century, and a persistent charge of cannibalism is almost certain to be the result.

Language of the Aka-Beada Tribe used in the Report.—The tribe occupying the shores of the Harbour of Port Blair and its islands at the British occupation in 1858 was, in its own tongue, the Aka-Bea-da. Its language was the first to be studied and its customs the first to be ascertained. It may still be called the tribe that is the best known and understood.

Every tribe has its own name for itself and its neighbours, and it is therefore necessary for the purposes of this *Report* to adopt one set of names only throughout, and the set most convenient is naturally that of the Aka-Bea-da. In this language *aka* is a prefix with small variations to nearly all tribal names and *da* is a suffix used with almost every isolated noun. For the sake of brevity I have throughout this *Report* discarded both these affixes and used the roots only of tribal names. But it must be understood that in actual speech an Aka-Bea would, in answering such a question as "what is your tribe?", reply

"Aka-Bea-da;" and in using his tribal name in the course of a sentence he would say "Aka-Bea." In this way the full and abbreviated forms of the Andamanese Tribes as named by the Aka-Bea Tribe are as under:—

The Andamanese Tribal Names according to the Aka-Bea Language.

Full.	Abbreviated.
Aka-Chariar-(da)	Chariar.
Aka-Kora-(da)	Kora.
Aka-Tabo-(da)	Tabo.
Aka-Yere-(da) (also Aka-Jaro-da)	Yere.
Oko-Juwai-(da)	Juwai.
Aka-Kol-(da)	Kol.
Aka-Bojigyab-(da)	Bojigyab.
Aka-Balawa-(da)	Balawa.
Aka-Bea-(da)	Bea.
Önge	Önge.
Jarawa-(da)	Jarawa.

Below is given a table of the names given to themselves and each other by the five South Andaman Tribes or Bojigngiji Group, traditionally sprung from one tribe. It brings out the following facts:—in each language of the Group the prefixes and suffixes differ much and the roots remain practically the same throughout for the same sense. These facts strongly indicate one fundamental tongue for this group of languages.

Table of the names for themselves and each other used by the five South Andaman tribes or Bojigngiji group.

Sense.	Tribe.	Bea.	Balawa.	Bojigyab.	Juwai.	Kol.
Fresh-water	*Bea*	Aka-Bea-da	Akat-Bea	O-Bea-da	Oko-Beye-lekile.	O-Bea-che.
Opposite-side	*Balawa*	Aka-Bala-wa-da.	Akat-Bale	O-Pole-da	Oko-Pole-lekile.	O-Pole-che.
Speak the language	*Bojigyab*	Aka-Boji-gyab-da.	Akat-Bo-jigyuab-nga.	O-Puchik-war-da.	Oko-Puchi kyar-lekile.	O-Puchik-war-che.
Patterns cut on bows	*Juwai*	Aka-Juwai-da.	Akat-Juwai	O-Juwai-da	Oko-Juwai lekile.	O-Juwai-che.
Bitter or salt taste	*Kol*	Aka-Kol-da	Akat-Kol	O-Kol-da	Oko-Kol-lekile.	O-Kol-che.

So too Yēre, Jeru or Jàro for the Aka-Yere Tribe means a (sort of) "canoe" in all the languages and Önge means "a man" in its own language.

The Twelve Tribes.—An Andamanese individual, as the people themselves recognise, belongs to a family, which belongs to a Sept, which belongs to a Tribe, which belongs to a group of tribes or division of the race. The first two of these without being specifically named are recognised, the last two have specific names.

The Census proved the existence of twelve tribes of the Andamanese, each with its clearly defined locality or rather "run," with its own language, and to a certain extent its own separate habits. The tribes are from north to south: Chariar, Kora, Tabo, Yere, Kede, Juwai, Kol, Bojigyab, Balawa, Bea, on the Great Andaman. The Önge-Jarawa occupies, with its Jarawa division, the interior of the South Andaman, the North Sentinel, and parts of Rutland Island; with its Önge division parts of Rutland Island and the Little Andaman. In the Archipelago is the Balawa tribe. Portman in his *History* divides the Andamanese into twelve tribes, necessarily omitting the Kora and Tabo, but dividing the Jarawas into three tribes according as they inhabit South Andaman, Rutland Island, and the North Sentinel. It is to that painstaking and accurate observer, Mr. E. H. Man, that we are indebted for the true differentiation of the tribes.

In their present depopulated condition the friendly tribes have amalgamated, as so many savages have done before them elsewhere in other parts of the world in similar circumstances. Thus, though the Kora, Tabo and Yere still keep more aloof than the rest in the jungles of the North Andaman, the whole of the remainder are thoroughly mixed up at the Home and practically throughout the Great Andaman and the Archipelago. This is a matter of the generation

now passing away and I well recollect 25 years ago, though the Bojigyab were then known to us, the "coming in" of the first Balawa from the Archipelago and of the first Chariar from the extreme north and the difficulty experienced in communicating with them.

In reading the following remarks on the tribes it must always be borne in mind that the statements therein made refer largely to a state of things practically already passed away and never likely to be revived. The reader can without difficulty use his discretion in separating what is from what has been in the course of his perusal.

Their Division into three Groups.—The Andamanese tribes are by themselves divided into three distinct groups, having certain salient characteristics : the forms of the huts, bows and arrows, of the canoes, of ornamentation, female clothing, hair dressing, and utensils, of tattooing, and of language common generally to the group, but differing in details and sometimes entirely from those of other groups. Judged by this standard the tribal affinities may be thus stated : Northern or Yerewa Group, Chariar, Kora, Tabo, Yere, Kede ; Southern or Bojigngiji Group, Bea, Balawa, Bojigyab, Juwai, Kol ; Outer Group, Önge-Jarawa, who do not tattoo. Some of the tribes are divided into septs, fairly well defined under headmen and with a local area of their own, but not under any separate designation.

The Distinctions between the Groups.—It is worth while bringing together this remarkable series of differences dividing the Andamanese into three divisions ; differences that more or less run through all matters concerning them.

(1) *Tattooing.*—Bojigngiji ; women are the tattooers cutting the skin slightly with small flakes of quartz or glass in patterns of zigzags or in straight vertical lines ; face, ears, genitals, arm and knee pits are excepted. Men and women are tattooed alike. Yerewa ; men are the tattooers, cutting the skin deeply with iron pig-arrow heads : short horizontal parallel cuts in three or five lines down the back and front of the trunk, round the anus and legs. Women are tattooed thus as life advances. Önge-Jarawa ; no tattooing.

(2) *Hair.*—Bojigngiji ; partial to complete shaving of head. Yerewa ; long matted ringlets touching the shoulders. Önge-Jarawas ; closely cropped head to a mop. Önge-Jarawa women are not shaved.

(3) *Ornaments and female clothing.*—Bojigngiji women wear a bunch of five or six leaves in front : Yerewa women a loose tassel of narrow strips of bark : Önge-Jarawa a bunching tassel of fibre. Bojigngiji women are most particular as to clothing : Yerewa women careless. Jarawa women are apt to be quite unclothed. Bojigngijis and Yerewas smear their faces with grey clay mixed with water, white clay in delicate patterns imitating the tattoo marks, red ochre mixed with turtle fat and almond oil in coarse undefined patterns. Önge-Jarawas, with yellow clay mixed with water in coarse patches, red ochre mixed with the above mentioned oils on the head. Önge-Jarawas wear no bone ornaments.

(4) *Ornamentation of utensils.*—Bojigngiji and Yerewas, slight : Önge-Jarawas delicate and elaborate.

(5) *Pots.*—Bojigngijis, pots with rounded bottom : Önge-Jarawas and Yerewas with pointed bottom.

(6) *Implements.*—Bojigngijis and Yerewas, coarse and rough in manufacture : Önge-Jarawas, often delicate and neat.

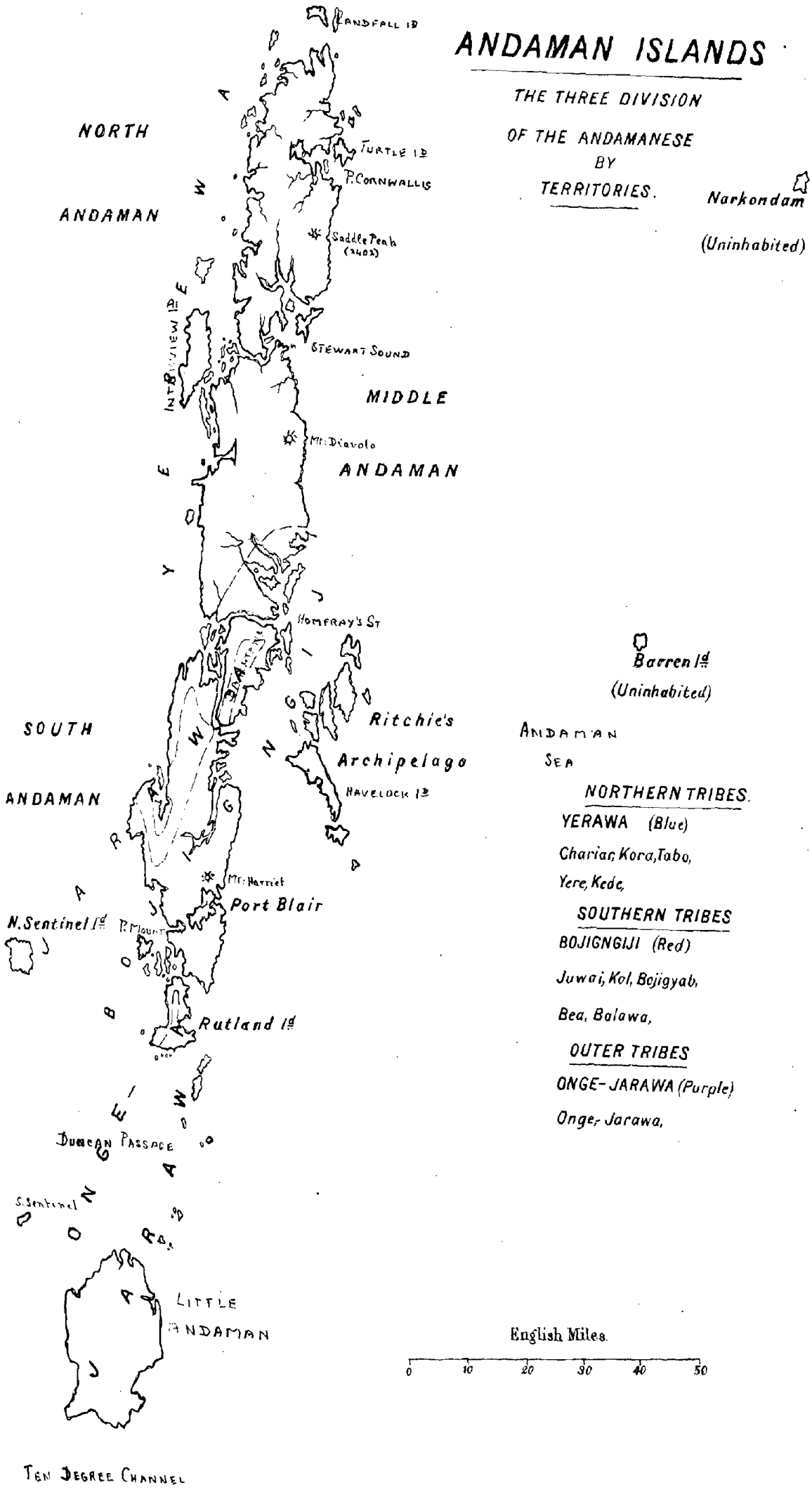
(7) *Baskets.*—Bojigngijis and Yerewas have a 'kick' and stand well : Önge-Jarawas have uneven bottom and stand badly.

(8) *Bows and arrows.*—Bojigngiji, *karama* bow and large arrows. Yerewa, *chokio* bow and small arrows. Önge-Jarawa, curved long bow and long arrows.

(9) *Arrows.*—Generally common in type to all tribes : long with plain straight point, long with straight point and barbs, short with broad detachable barbed head for pigs.* Önge-Jarawas and Yerewas, multiple headed arrows for fish.

(10) *Harpoons.*—For turtle, dugongs, and large fish among Bojigngijis and Yerewas : none among the Önge-Jarawas.

* As the pig runs off, the trailing shaft is at once caught by something in the jungle and the animal is thus brought up short.


ANDAMAN ISLANDS
THE THREE DIVISION
OF THE ANDAMANESE
BY
TERRITORIES.
Narkondam
(Uninhabited)
Barren Id.
(Uninhabited)
ANDAMAN
SEA
NORTHERN TRIBES.
YERAWA (Blue)
Chariar, Kora, Tabo,
Yere, Kede,
SOUTHERN TRIBES
BOJIGNGIJI (Red)
Juwai, Kol, Bojigyab,
Bea, Balawa,
OUTER TRIBES
ONGE-JARAWA (Purple)
Onge, Jarawa,
NORTH
ANDAMAN
MIDDLE
ANDAMAN
SOUTH
ANDAMAN
LITTLE
ANDAMAN
Landfall Id
Turtle Id
P. Cornwallis
Saddle Peak
(2402)
Stewart Sound
Mt. Diavolo
Homfray's St
Ritchie's
Archipelago
Havelock Id
Mt. Harriet
Port Blair
N. Sentinel Id
Rutland Id
Duncan Passage
S. Sentinel
Ten Degree Channel
English Miles.
0
10
20
30
40
50

(11) *Canoes.*—Bojigngiji and Yerewa, same pattern canoe; Önge-Jarawa pattern different from above. Both out-rigged, Bojigngiji has in addition a large dug-out without outrigger.

(12) *Huts.*—Bojigngijis and Yerewas have temporary huts. Önge-Jarawas have large permanent communal dwellings.

(13) *Dancing.*—Bojigngijis and Yerawas, sounding board and song and clapping in unison. Önge-Jarawa, standing in a ring and alternately bending and straightening the knees: also on occasion kicking the buttocks with the flat of the foot.

(14) *Beds.*—Jarawas sleep on the wood ashes of the fires. Önges on raised bamboo platforms. Other tribes on leaves and in sand-holes.

(15) *Food.*—The staple food of the Önges is the mangrove fruit, boiled, and they preserve small fish dried after cooking. None of the other tribes do this.

The Long-shore and Jungle Andamanese.—The Andamanese are by themselves again further divided into the Aryoto or long-shore men, and the Eremtaga or jungle-dwellers; the habits and capacities of these two differ, owing to surroundings, irrespective of tribe. Some tribes as the Tabo, Juwai, Kol, and the South Andaman Jarawas, are entirely Eremtaga, while the Balawa, the Chariar, and the Jarawas of the North Sentinel are entirely Aryoto. The Aryoto holds himself to be better than the Eremtaga, but beyond this there seem to be no exclusive distinctions between them and an Aryoto will marry or adopt an Eremtaga.

With the minuteness in matters concerning their surroundings that is characteristic of all entirely uneducated people, the Andamanese recognise a third division of themselves by habits into Adajig or creek-dwellers, *i.e.*, those who live on the shores of the many inlets of the sea on the coasts of the Islands. The habits of the Adajig, however, are practically those of the Aryoto.

Distinctions by habits are quickly lost by the Andamanese. The Jarawas have now no canoes in the South Andaman and are quite incapable of constructing or using them, though all Önges have them and so have the Jarawas on the North Sentinel. So also had the Jarawas that Colebrooke met a century ago. And this year (1902) it was ascertained that the young men brought up at the Duratang (Kyd Island) Home and occupied chiefly in market gardening could neither steer nor paddle a canoe, nor take up tracks in the jungles. In one generation, though there was no restriction in communication with their people, they had lost both sea and forest craft.

Former Isolation of the Tribes.—Before the arrival of the English the tribes, excepting actual neighbours, may be said to have had no general intercourse with each other, and excepting some individuals were entirely unable to converse together, though it can be conclusively shown that all the existing languages are directly descended from one parent tongue. Even Septs had but little mutual intercourse and considerable differences in details of dialect and, as has occurred in other island abodes of savages, there must have been a change of dialect or language along about every 20 miles of the coast. The tribes were in fact brought together and made definitely acquainted with each other's separate existence and peculiarities by the influence and exertions of Mr. Man between 1875 and 1880.

Sympathies and Antipathies.—The tribal feeling is expressed as follows: friendly within the tribe, courteous to other Andamanese if known, hostile to every stranger, Andamanese or other. The sympathy and antipathy exhibited are strictly natural, *i.e.*, savage, and are governed by descent. The feeling of friendliness lies in an ever-decreasing zone from the family outwards towards sept, tribe, group: hostility to all others. Even septs will fight each other and Aryoto and Eremtaga do not mix much. But there is no "caste" feeling, and tribes will, in circumstances favouring the actions (*e.g.*, living on the tribal borders), intermarry and adopt each other's children. Within the tribe there is so general a custom of adoption that children above six or seven rarely live with their own parents. It is an act of friendliness to give up or adopt a child and the custom has had the effect of making the various septs of a tribe hang together much better than would otherwise have been possible.

Fighting Capacity.—The Andamanese are bad fighters and never attack unless certain of success. During hostilities they never take any precautions as to their own safety by sentries, works, armour, or ruses of any kind, nor in the attack beyond taking advantage of cover. The only ideas of protection yet met with are among the Jarawas, who use trunk-armour consisting of a wide belt of bark and well devised sentry stations on the paths round their permanent communal huts.

The Hostile Tribe of Jarawas.—The Jarawas and some Önges kill every stranger at sight, but the Jarawas only are in these days entirely hostile, and on the whole the Önges are friendly, the friendliness dating from the capture and subsequent judicious treatment of 24 men, women and children on the Cinque Islands in January 1885. The only positively dangerous people are thus the Jarawas, and this is to be accounted for in this way. The ancient (as proved by old separate kitchen-middens) incursion from the Little Andaman through Rutland Island of that section of the Önge tribe, which is now known as the Jarawas, into the South Andaman set up an implacable tribal hostility between them and the Beas, its other occupants, which has been extended to the foreign settlers in Port Blair, and has nowadays become an undying distrust of all strangers and an hereditary hostility towards them.

But Colebrooke, reporting in 1790, gives a vocabulary of a people, now identified with the Önge-Jarawa tribe by its speech, and as theories have been built up on this fact, it is as well to see carefully when and where Colebrooke met the natives and who they were.

Colebrooke's Knowledge of them (1789).—Colebrooke left Diamond Island (Cape Negrais) on December 20th, 1789, and reached Port Cornwallis (*now* Port Blair) on December 23rd. On the 24th he went up the harbour and saw some natives (Jarawa Tribe) on Dundas Point. On the 26th he went up the harbour with Commodore Cornwallis (brother of the Governor-General), accompanied by a native who had been wounded in a skirmish with his tribe, found to be very hostile by the people of the snow *Viper*, and was kept on board the *Ranger*, Cornwallis's ship. He is described as "very cheerful and quite reconciled to his captivity." They went up the Bumlitan Creek as far as Bumlitan and met another native (Jarawa) who ran away. They dined (lunched) on "Mount Pleasant," a hill on the harbour near Viper Island, and met another Jarawa who exchanged his bow and arrows for a knife. On the 27th the wounded native, who had been on the *Ranger* three weeks, was put ashore by the Commodore, who uniformly treated the savages with extreme consideration. On the 28th they met the Jarawa on Dundas Point whom they had seen before, with a woman and a girl and found him again friendly. On the 29th there was trouble with the Bea Tribe at Phœnix Bay and with the Jarawas at Ariel Creek.

Colebrooke then went to the Nicobars and returned to Port Blair on February 20th, 1790, starting up north on 21st February. On the 23rd March at Port Meadows he saw some of the Bea Tribe leaving Entrance Island and saw some more hostile Beas, whom the party frightened off, coming from the North. On the 26th he went to the Archipelago, and met some hostile Balawas. On the 27th he went into Colebrooke Passage and saw some Bojigyab huts and some more of the tribe, who ran away in Elphinstone Harbour on the 29th. On the 30th they met some hostile Kols in the east entrance to Homfray's Strait and some more on the 31st off the north end of Long Island. On the 3rd and 4th April they found the Yere Tribe in Stewart Sound extremely hostile. On the 6th Blair himself met some Koras at the foot of Saddle Peak, who ran away. On the 7th Blair discovered the present Port Cornwallis and Colebrooke left for India.

It is clear from this that the only native from whom Colebrooke could have procured his *Vocabulary* was the wounded man on the *Ranger* and that man, as the *Vocabulary* shows, was a Jarawa. The tribes of all sorts—Jarawa, Bea, Bojigyab, Balawa, Kol, Yere, Kora, whom Colebrooke met, except in the case of one Jarawa and his family, exhibited either extreme fear or hostility.

Explanation of the name Mincopie for the Andamanese.—The first word in Colebrooke's *Vocabulary*, the first ever made of any Andaman tongue, is Mincopie for "Andaman Island or native country," whence Mincopie has

become a persistent book-name for the Andamanese. It has been a great puzzle to scientific men ever since, though it is now to be identified, as will be seen later, with "Möngebe, I am (an) Önge," a phrase, which was perhaps pronounced and at any rate sounded in Colebrooke's ears as "Minggobie." His informant, in using it, apparently meant to explain that he was an Önge, or as the Jarawas seem to pronounce the name,—an Inggo.

Relations with the English.—Since the establishment of the Penal Settlement in 1858 an Andamanese Home has been created in Port Blair for the use of the aborigines, and several attempts have been made to civilise some of them and to bring up the children to a Christian education. These attempts have met with no reasonable success, the "civilised" returning to their original savagery at the first opportunity, the children deserting the schools and, except in an instance here and there, retaining nothing of their early education in after life. The existing use of the Home is that of a free asylum to which every Andamanese that likes is admitted. He may stay as long as he pleases and go when it suits him. While there he is housed, fed and taken care of, and for the sick there is a good and properly maintained hospital. From the Home, too, are taken such little necessaries and luxuries as the people desire to friends at a distance and during each of the many tours taken round the coasts by the officials. In return the Andamanese of the Home are employed to help in catching runaway convicts, in collecting edible birds'-nests and trepang and other natural produce, and in making "Andamanese curios," from which a small income is derived and expended on them. They have never succeeded in acquiring any true idea of money for themselves and all their earnings have to be administered for them. It is indeed against local rules to give them money, as it is at once spent in intoxicants. The present policy, in short, is to leave them alone and to do what is possible in the conditions to ameliorate their lives. The administrative objects gained by establishing friendly relations with the tribes are the cessation of the former and much too frequent murder of shipwrecked crews, the external peace of the Settlement and the creation of a jungle police to prevent escapes of convicts, and the recapture of runaways.

In the days of Blair and Kyd, 1789—96, the tribes showed themselves to be practically uniformly hostile, despite the conspicuous consideration these early officials exhibited, and remained continuously so after the commencement of the re-establishment of the Settlement in 1858, attacking the working parties of convicts, just as the Jarawas do still, for iron and articles suitable to them and robbing the gardens started for food supplies. These practices had to be repressed by force, and efforts towards friendly relations had to be postponed until respect for the settlers was established. The procedure officially then adopted and carried out with such success in the end by Messrs. Corbyn, Homfray, Man, Godwin-Austen, and Portman in succession was the simple one of providing the Home and visiting the people in their own haunts, as opportunity arose, with suitable presents.

In Appendix B will be found an abstract of the Jarawa raids on the Settlement, which have been continuous since 1872, when they were first differentiated. In the interval they have attacked convicts, usually at their work, on 20 occasions and friendly Andamanese Camps on 12 occasions. That is, they have made 32 attacks in 30 years. In these attacks 27 convicts and 4 Andamanese have been killed; 7 convicts, 2 police constables, and 5 Andamanese have been wounded. In counter expeditions and searches for the raiders 3 Jarawas have been killed, 9 wounded, and 20 captured. Of the captured 18 have been released in a short time and 2 have died. It will be seen thus that the hostility of the tribe is towards all strangers, including their own people, and that the policy of capture, kindness in captivity, and release with presents has not up to date borne any good fruit whatever. This is a very different story to that of their almost equally wild congeners the Önges.

II. Physical Characteristics.

Portman's and Molesworth's Enquiries.—The physical characteristics of the Andamanese have been considerably studied by Mr. M. V. Portman and Major W. S. Molesworth, and as their work has never been published, the

following account thereof may serve to draw attention to it. It is to be found in 15 volumes, copies of which are deposited at the India Office, the Home Department Library in Calcutta, and the British Museum. Volumes 10, 11, 14 and 15 contain anthropometric measurements, and medical details of 200 Andamanese: thus—volume 10 of 50 South Andaman males, volume 11 of 50 South Andaman females, volume 14 of 50 North Andaman males, and volume 15 of 50 North Andaman females.

The remaining volumes are plantinotype photographs with explanatory letterpress of Andamanese. Volumes 1 and 2 typical heads: volume 3, heads, full face and profile: volume 4, adze and bow-making: volumes 5 and 6, bow and arrow-making: volume 7, rope-making and hut-building: volume 8, eating and drinking, packing and carrying bundles, utensils, attitudes, torch-making, greeting: volume 9, painting, tatooing, counting: volume 12, full length, full face and profile, view of males: volume 13, of females.

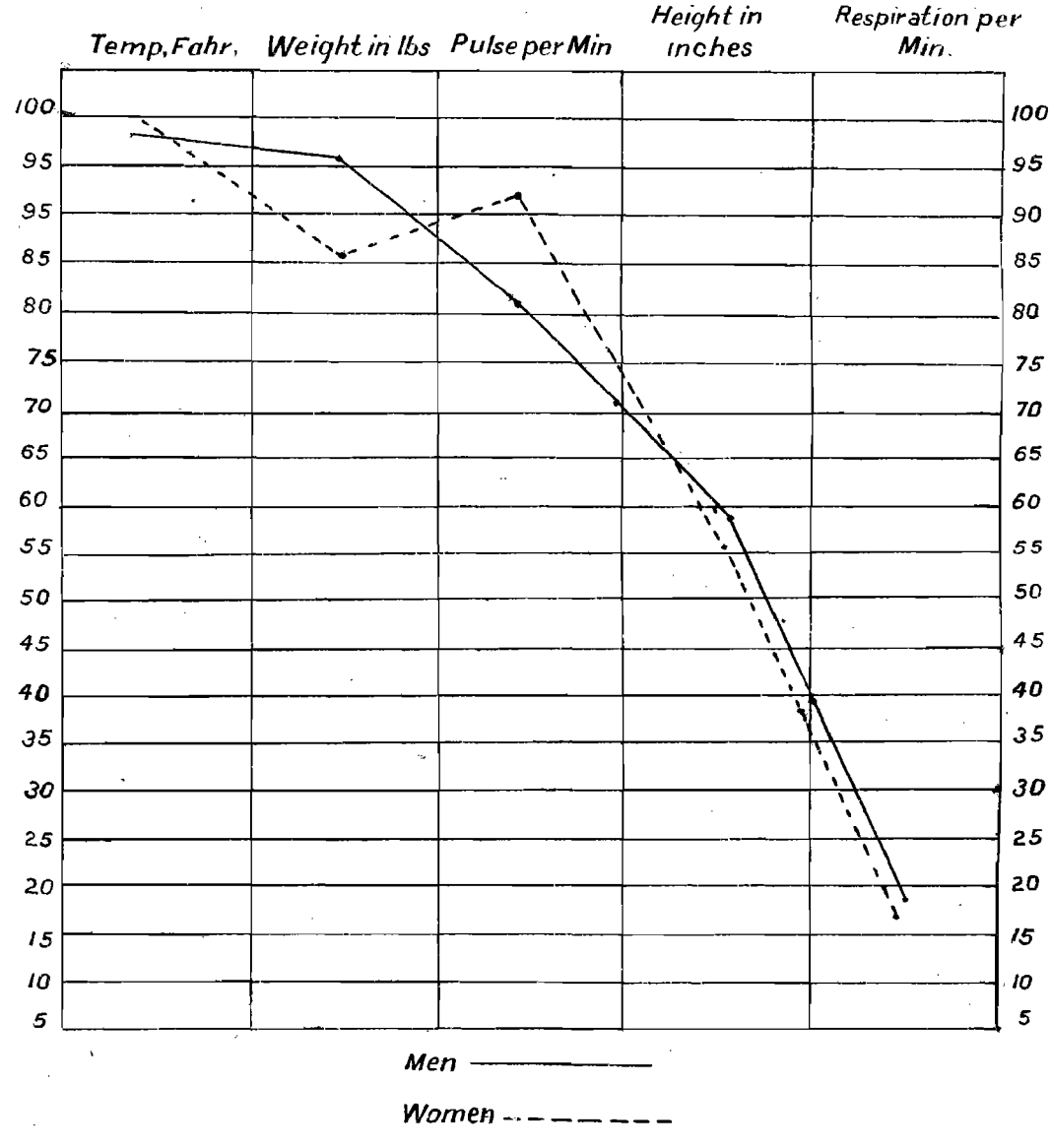
The following table summarises the results of this elaborate enquiry for general information:—

Andamanese Averages.

	Height in inches.	Temperature Fahr.	Pulse beats per minute.	Respiration per minute.	Weight in lbs.
Men . . .	58½	99°	82	19	96 lbs. 10 oz.
Women . .	54	99°·5	93	16	87 lbs.

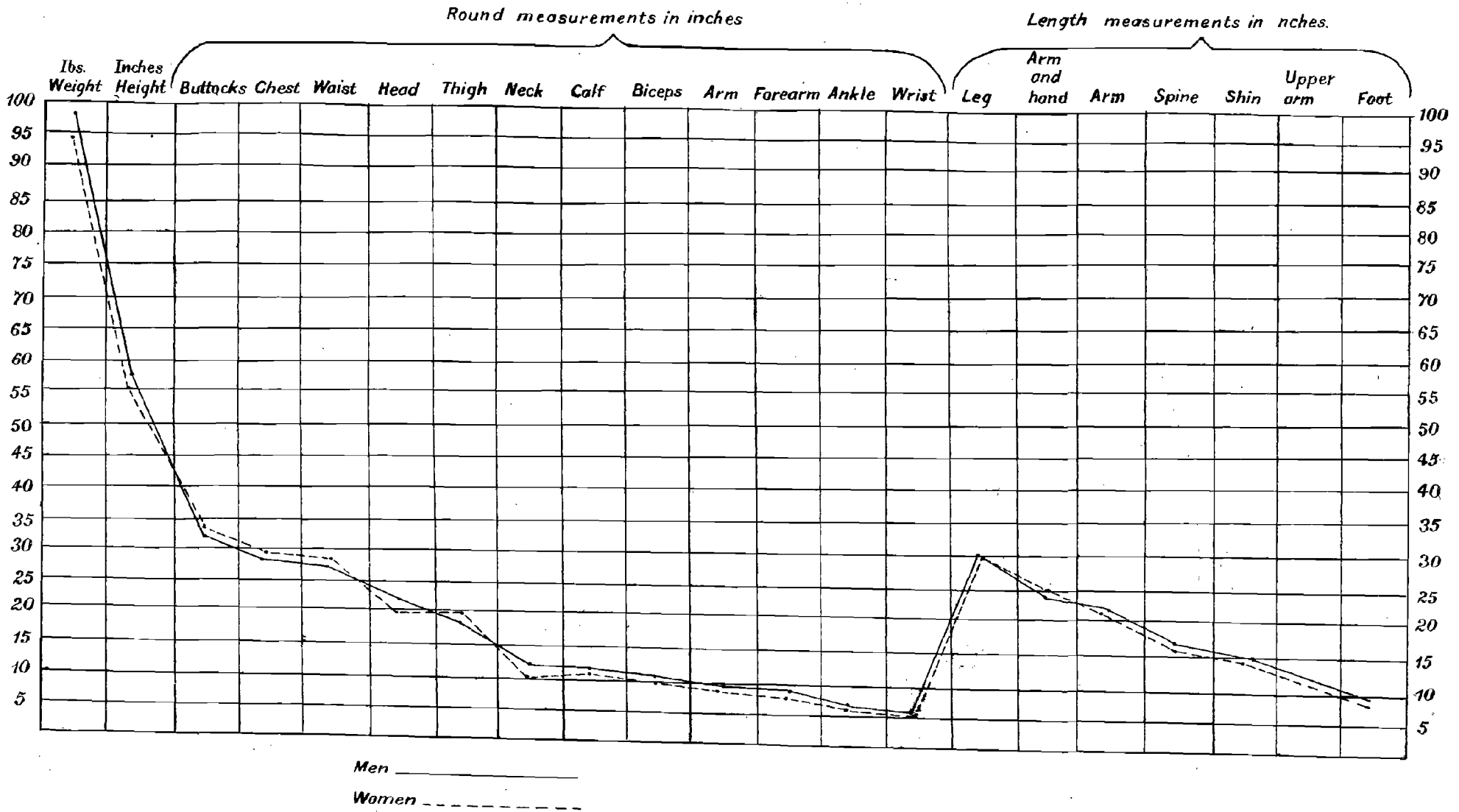
and the accompanying diagram will show the relative physical qualities of the sexes of the adult Andamanese:—

RELATIVE PHYSICAL QUALITIES OF THE SEXES AMONG THE ANDAMANESE



These measurements admit of the comparison of the sexes among the Andamanese by diagram, thus :—

DIAGRAM COMPARISON THE SIZE OF THE SEXES AMON ANDAMANESE.



Man's Enquiries.—In addition to Portman's and Molesworth's measurements there are those taken by Man some 25 years ago of 48 men and 41 women, which give the following average results of much interest :—

Average weight of 40 and body and limb measurements of 48 Andamanese males.

1.	Weight	98·12	lbs.
2.	Height	58·73	inches.
3.	Size round head	21·00	„
4.	„ „ neck	12·30	„
5.	„ „ chest	27·94	„
6.	„ „ waist	27·08	„
7.	„ „ buttocks	31·98	„
8.	„ „ thigh	18·36	„
9.	„ „ calf	12·09	„
10.	„ „ ankle	7·19	„
11.	„ „ biceps	10·60	„
12.	„ „ arm	9·59	„
13.	„ „ forearm	9·05	„
14.	„ „ wrist	5·53	„
15.	Length of spine	17·44	„
16.	„ of arm and hand	24·64	„
17.	„ from shoulder to elbow	12·47	„
18.	„ from shoulder to wrist	21·98	„
19.	„ from ankle to knee	15·65	„
20.	„ from ankle to hip	30·66	„
21.	„ of foot	9·29	„

Average weight of 37 and average body and limb measurements of 41 Andamanese females.

1.	Weight	94·08	lbs.
2.	Height	55·40	inches.
3.	Size round head	19·96	„
4.	„ „ neck	10·86	„
5.	„ „ chest	28·84	„
6.	„ „ waist	27·23	„
7.	„ „ buttocks	33·82	„
8.	„ „ thigh	19·33	„
9.	„ „ calf	11·88	„
10.	„ „ ankle	7·14	„
11.	„ „ biceps	9·96	„
12.	„ „ arm	9·50	„
13.	„ „ forearm	8·41	„
14.	„ „ wrist	5·35	„
15.	Length of spine	16·58	„
16.	„ of arm and hand	25·53	„
17.	„ from shoulder to elbow	11·80	„
18.	„ from shoulder to wrist	20·80	„
19.	„ from ankle to knee	15·06	„
20.	„ from ankle to hip	30·32	„
21.	„ of foot	8.29	„

High Temperature.—The high bodily temperature may be an indication of the low vitality characteristic of the race. The cause is obscure, unless it is to be traced to their largely carbonaceous diet or to saturation with malaria producing a condition of masked fever. It has been observed that they do not feel themselves to be otherwise than quite well when the temperature is over 100° Fahr., and that that condition does not affect their appearance or actions.

Breathing.—In view of the experiments made in European countries and the United States as to the relative breathing of the sexes, it is of interest that the breathing of both sexes among the Andamanese is abdominal or upper abdominal, the women showing scarcely any indication of their breathing, though the men show it well.

In the healthy younger Andamanese the breath is sweet and there is no distinctive smell from the body when clean, though they perspire freely. The older people with decayed teeth and tissues, have foul smelling breath and bodies, partly due to a mild form of scurvy, caused by absence of vegetable food at certain times of the year.

Age.—The Andamanese male matures at about 15, attains full growth at about 18, and marries at about 26, he begins to "age" at about 40 and lives on

to about 60 to 65, if he reaches "old age." Except as to marriage at an earlier age, about 18, these figures apply fairly to the women also, who, however, live somewhat longer than the men, retaining in old age both health and mental faculties.

Reproduction.—The marriages are infructuous, though barrenness is uncommon, a couple rarely producing families of even moderate size and many none at all. The child-bearing age is from 16 to 35; weaning is much delayed.

Endurance.—Left to themselves the Andamanese go stark naked and with head uncovered, except that the women wear, as clothing and not ornament, one or more leaves in front and a bunch of leaves tied round the waist behind, or a tassel of leaves all round. Jarawas, however, of both sexes have been seen entirely naked. They dislike and fear cold, but not heat, though they avoid exposure to the sun; and being accustomed to gratify every sensation as it arises, they endure thirst, hunger, want of sleep, fatigue and bodily discomfort badly. Want of sleep, such as occurs at their dances for occasionally as much as four days and nights, exhausts them greatly. A man's load is 40 lbs. and his distance 15 miles for a day or two only. After that he will rest, whatever the urgency.

Food.—The food consists of fish, pork, turtle, iguana, "wild cat" (*paradoxurus sp.*), shell-fish, turtle eggs, certain larvæ, and a great variety of fruit, seeds, roots, and honey, and is plentiful both by sea and land. They never starve, though they are habitually heavy eaters. The food is always cooked and commonly eaten very hot. As much as possible of an animal is eaten and the Andamanese, like most hunters, have found out the dietary value of tripe. The Andamanese are expert cooks and adept at preparing delicacies from parts of animals and fish.

Skin.—The skin, which is smooth, greasy and satiny, varies in colour from an intense sheeny black to a reddish brown on the unexposed parts and also on the collar bones, cheeks and other prominences of the body. Its general appearance has been likened to a "black-leaded stove." The scalp, the lips and nostrils are black, and there are black patches on the palate. The soles of the feet are brownish yellow. The Bojigngiji Group (South Andaman) are the darkest, and among the Önges parts of the face are a light reddish-brown. The Jarawas are distinctly fairer than the rest, the general colour being a deep reddish brown. Leucoderma occurs on the fingers and lips.

Hair.—The hair varies from a sooty black to dark and light brown, yellowish brown and red. The general appearance of it is sooty black or yellowish brown. Except on the head the hair is scanty, but not absent: on the head it grows in small rings, which give it the appearance of growing in tufts, though it is really closely and evenly distributed over the whole scalp. Limited baldness is unknown, but temporary general baldness after disease occurs with a weak growth of the hair afterwards. The hair is not shaved, except on the head and eyebrows, and each tribe has, with many fantastic individual variants, its own method of wearing it. It turns grey at about 40, but white hair is not common.

Shaving is "woman's work" and was performed by small flakes of quartz, but nowadays flakes from the kicks of glass bottles are substituted. It is effective and close, but a painful operation on an European's face, as I proved by personal experience many years ago.

Bodily Parts.—The mouth is large, the palate hard and highly arched, the lips well formed. The hands and feet are small and well made. The ears are small and well shaped, the eyes are generally dark to a very dark brown, bright, liquid and clear, but prominent with slightly elevated outer angles and become dulled with age. The teeth, in the young, except amongst the Önges, are white, good and on the whole free from disease. Those of the Önges are irregular and discoloured. As age advances the teeth generally lose their whiteness and become worn, but without much caries. The teeth are roughly used without any care whatever. Dentition is early.

Diseases.—The muscular strength of the Andamanese is great, but their vitality is nevertheless low, and the apparently robust quickly die after sickening

or severe injury. However, like many of the lower mammals, they recover quickly from illness when they overcome it.

Idiocy, insanity and natural deformities are rare among them. Epilepsy is however recognised and homicidal mania occurs sometimes with concomitants of insanity, such as eating raw flesh or earth and drinking the blood of the victim.

An unintentional artificial depression of the forehead and sides and top of the skull is produced in some women, chiefly among the Önges, caused by using a strap to carry loads on the back when young.

No parts of the body are intentionally pierced, injured, or deformed for the wearing of ornaments and other purposes, though the skin is extensively tatooed.

The statements at my disposal as to the relative prevalence of diseases among the Andamanese and their relative fatality are unsatisfactory, but so far as I can make out the following is a fair statement of the case in order of importance :—

I.—Fevers	45 per cent. of all cases.
II.—Respiratory organs	35 „ „ „
III.—Digestive organs	18 „ „ „
IV.—Other diseases	2 „ „ „

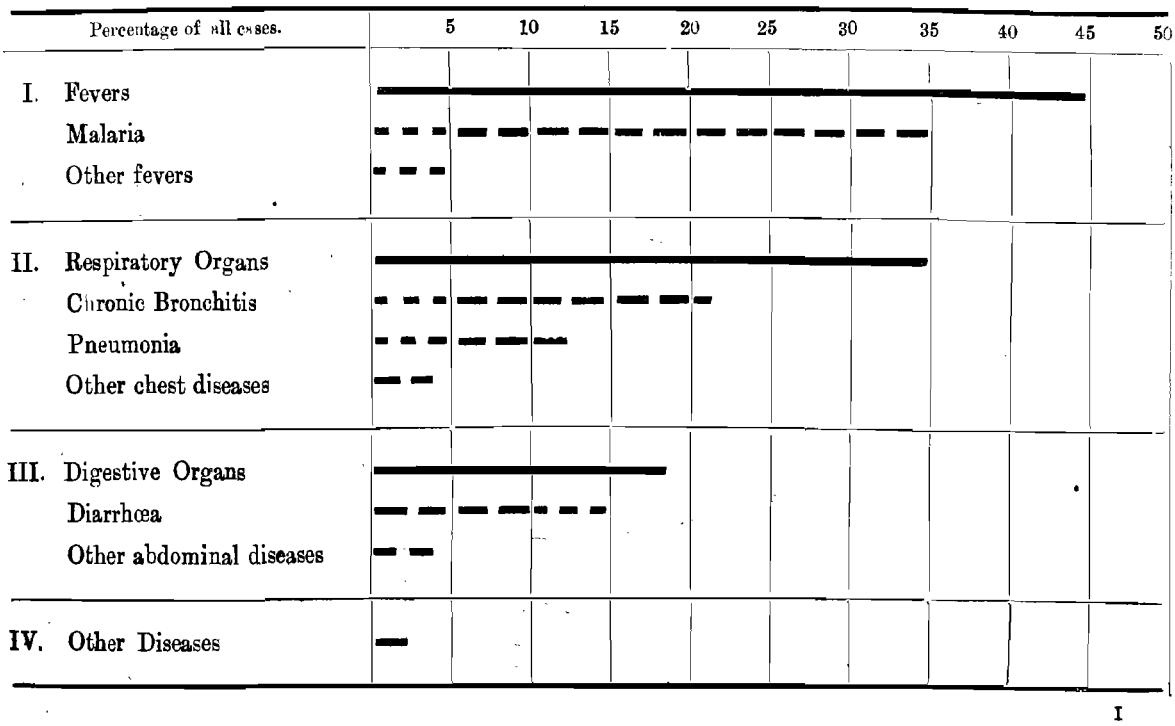
These classes may be further divided up more specifically thus :—

I.—Malaria	40 per cent. of all cases.
Other fevers	5 „ „ „
II.—Chronic bronchitis	21 „ „ „
Pneumonia	12 „ „ „
Other chest diseases	3 „ „ „
III.—Diarrhœa	15 „ „ „
Other abdominal diseases	3 „ „ „
IV.—Other diseases	1 „ „ „

Without placing too much reliance on the above table, it serves to bring out the fact that among the Andamanese, as among the alien immigrants, malarial fevers are the overwhelming prevalent causes of sickness. As also in the case of immigrants, malarial fevers are not nearly so fatal in proportion to cases as the diseases of the respiratory and digestive organs. Thus I make out that deaths from malarial fevers occur in 8·5 per cent. of the cases, while those from diseases of the respiratory organs in 90 per cent., and of the digestive organs in 74 per cent. These considerations prepare us for the old statement that the prevalent diseases among the Andamanese are climatic and the same as those of the foreign immigrants.

The following diagram brings into clear relief the relative prevalence of diseases among the Andamanese as disclosed by the above tables :—

Diagram of Relative Prevalence of Diseases among the Andamanese.



Going a little further into detail, it has been noticed that malarial fevers are commonest in June, at the commencement of the monsoon and during heavy bursts of rain thereafter. Malarial fevers commence as usual in their intermittent form and prove fatal as remittent fever. Other zymotic fevers are uncommon, though the Andamanese will drink the filthiest water.

A short rainfall in the Andamans is usually accompanied by high dry winds and then is the high time of the chest diseases. But though the Andamanese are susceptible to bronchial catarrh, and though chronic bronchitis is common, it is not fatal; pneumonia is however extremely fatal. Pleurisy, hæmoptysis and phthisis are comparatively rare.

Abdominal diseases, though comparatively uncommon, are very fatal, diarrhœa, including probably dysentery, claiming most victims. Dyspepsia and colic are both common. In health the stools are regular, but inclined to looseness. They have been likened to those of the lower mammals when in good health.

Of other diseases sunstroke is dreaded and always fatal. The brain and spinal cord are not often affected, though curvature of the spine is occasionally seen. Scurvy occurs at the seasons when vegetable diet, *i.e.*, such as fruits and roots afford, is too scanty. Elephantiasis occurs among the Önges, but is limited to the Little Andaman. Chronic muscular rheumatism occurs among the older people, leading to loss and withering of limbs. Ulcers, generally the result of wounds in the jungles, are common and, as with the immigrants, slow to heal. Abscesses are also common. Considering that personal uncleanliness is often extreme, skin diseases are curiously infrequent, except ringworm and exfoliated dermatitis, sometimes leading to destruction of finger and toe nails, due either to scurvy or exposure.

Excluding malaria, endemic disease has not been recognised among the Andamanese, and the only epidemics that have been known to attack them are imported pneumonia (1868), syphilis (1876), measles (1877), and influenza (1892), in that order: unhappily with disastrous effect. Exposure to the sun and wind in the cleared spaces, the excessive use of tobacco and over-clothing, as results of contact with civilisation, are also said to have undermined their health as a body of human beings. Intoxicants are forbidden to them by local rules and are not easily or commonly procured by them.

Medicine.—The diseases which the Andamanese distinguish by name are malarial fever, catarrh, coughs and rheumatism. Phthisis and heart disease are recognised, but are spirit caused and so are all internal maladies, which of course are not understood.

Medicine and surgery are almost absent from the Andamanese purview. They will bleed on the forehead for fever and headache and round abscesses to alleviate pain. They scarify for rheumatism and internal pain as a last resort. Red ochre and various herbal concoctions are both swallowed and applied as all-healers, in which they have great faith. Certain leaves are sometimes applied to local affections and beds made of them for the sake of their supposed medicinal odour. Cinctures, sometimes of human bones, are used to alleviate pain, but no other charms are employed. Occasionally the diet is slightly changed to relieve illness aud they are quick to avail themselves of the hospital provided for them. They are extremely afraid of European surgery and will tremble violently at the sight of the operating knife. They smear themselves with white clay and water against the heat of the sun and with red ochre and oil after dark as a protection against cold.

The sick are sympathetically and very kindly, but superstitiously, treated. There are no pregnancy customs and those at childbirth are sensible and without superstition, difficult delivery being practically unknown.

Snakebite is uncommon and seldom fatal. Ligatures above the bite and scarifying are applied, both operations showing observation and common sense. Bites of centipedes, scorpions, leeches and ticks cause little inconvenience to the Andamanese, though very much to immigrants.

Appearance.—The figures of the men are muscular and well formed and generally pleasing; often a young man is distinctly good looking, for, though there is a tendency to prognathism, it is not commonly pronounced, while a straight and well formed nose and jaw, accompanied by superior intelligence

and an irritable temper indicating a nervous temperament, are by no means rare. The natural good looks of many of the people are injured by the habit of shaving and smearing themselves with greasy red and white pigments.

The pleasing appearance of the men is not a characteristic of the women, whose habits of completely shaving the head and profusely smearing themselves, with an early tendency to stoutness and ungainliness of figure and sometimes to pronounced prognathism, frequently make them unattractive objects to Europeans. They are, however, bright and merry even into old age and are under no special social restrictions, have a good deal of influence, and in old age are often much respected. They nevertheless readily and naturally acquiesce in a position of subordination, slavery and drudgery to the men, and are apt to herd together in parties of their own sex. Variation from type is much commoner among the men than the women.

III. Mental Characteristics.

Sense Development.—The nerve development of the Andamanese is low, pain is not severely felt and wounds quickly heal. The sense development is normal and instances of unusual acuteness observed are the result of personal training in certain directions and not of heredity, *e.g.*, they will recognise one of themselves at a great distance, but not an unaccustomed object such as a European: they can smell a fire or hear the sound of dancing also at a great distance, but this is because they are always on the look-out for these things and their discernment is a matter of habit and of much consequence to themselves. They can, in short, do well such things as they pay particular or habitual attention to.

The Andamanese are naturally far sighted, and any near sight observed will be found to be due to leucoma or other disease. In respect to sight, however, they are not more highly gifted than civilized mankind. The colour sense is hardly developed at all and they are what would be called in Europe colour-blind to most colours. Black, white and red are distinguished, but green and blue are not. This is due apparently to want of observation only, as they distinguish between white paint and the white European skin. A good deal of blindness was caused by imported epidemic ophthalmia in 1877. Hearing is not abnormally acute, but is highly trained in matters pertaining to jungle craft. Touch seems to be undeveloped. The sense of smell is highly developed in matters necessary to their existence, but they have no appreciation of artificial scent or of that of flowers which do not denote food, nor can they distinguish by smell that which they cannot see unless it be an object of food. Taste is strongly developed as to honey, distinguishing that deposited from different flowers. They care nothing for scenery and do not decorate themselves with flowers.

Character.—In childhood the Andamanese are possessed of a bright intelligence, which, however, soon reaches its climax and the adult may be compared in this respect with the civilised child of ten or twelve. He has never had any sort of agriculture, nor until the English taught him the use of dogs did he ever domesticate any kind of animal or bird, nor did he teach himself to turn turtle or to use hook and line in fishing. He cannot count and all his ideas are hazy, inaccurate and ill-defined. He has never developed unaided any idea of drawing or making a tally or record for any purpose, but he readily understands a sketch or plan when shown him. He soon becomes mentally tired and is apt to break down physically under mental training.

He retains throughout life the main characteristics of the child: of very short but strong memory, suspicious of but hospitable to strangers, ungrateful, imitative and watchful of his companions and neighbours, vain and under the spur of vanity industrious and persevering, teachable up to a quickly reached limit, fond of undefined games and practical jokes, too happy and careless to be affected in temperament by his superstitions, too careless indeed to store water even for a voyage, plucky but not courageous, reckless only from ignorance or inappreciation of danger, selfish but not without generosity, chivalry or a sense of honour, petulant, hasty of temper, entirely irresponsible and childish in action in his wrath and equally quick to forget, affectionate, lively in his movements and exceedingly taking in his moments of good temper. At these times the Andamanese are gentle and pleasant to each other, considerate to the aged, the

weakly or the helpless and to captives, kind to their wives and proud of their children, whom they often over-pet; but when angered cruel, jealous, treacherous and vindictive, and always unstable. They are bright and merry companions, talkative, inquisitive and restless, busy in their own pursuits, keen sportsmen and naturally independent, absorbed in the chase from sheer love of it and other physical occupations and not lustful, indecent or indecently abusive.

As the years advance they are apt to become intractable, masterful and quarrelsome. A people to like but not to trust. Exceedingly conservative and bound up in ancestral custom, not amenable to civilization, all the teaching of years bestowed on some of them having introduced no abstract ideas among the tribesmen, and changed no habit in practical matters affecting comfort, health, and mode of life. Irresponsibility is a characteristic, though instances of a keen sense of responsibility are not wanting. Several Andamanese can take charge of the steering of a large steam launch through dangerous channels, exercising then caution, daring and skill though not to an European extent, and the present dynamo-man of the electric lighting on Ross Island is an Andamanese, while the wire-man is a Nicobarese, both of whom exhibit the liveliest sense of their responsibilities, though a deep-rooted unconquerable fear of the dynamo and wires when at work. The Nicobarese shows, as is to be expected, the higher order of intellect. Another Andamanese was used by Portman for years as an accountant and kept his accounts in English accurately and well.

The intelligence of the women is good, though not as a rule equal to that of the men. In old age, however, they frequently exhibit a considerable mental capacity which is respected. Several women trained in a former local Mission Orphanage from early childhood have shown much mental aptitude and capacity, the "savagery" in them however only dying down as they grew older. They can read and write well, understand and speak English correctly, have acquired European habits completely, and possess much shrewdness and common sense: one has herself taught her Andamanese husband, the dynamo-man above mentioned, to read and write English and induced him to join the Government House Press as a compositor. She writes a well expressed and correctly spelt letter in English, and has a shrewd notion of the value of money. Such women, when the instability of youth is past, make good "ayas," as their men-kind make good waiters at table.

The highest general type of intelligence yet noticed is in the Jarawa tribe.

Mental Capacities.—The Andamanese divide the day by the position of the sun and can roughly divide the night, though they have no idea of steering by the sun or stars. The year is known by the three main seasons of the climate and the months rudely by the flowering and fruiting of trees of economic value to them. Tides are understood and carefully noted, a necessary accomplishment to a people largely living on shell-fish and navigating shallow tidal creeks and shores. They are aware of the connection of the phases of the moon with the tides and have names for the four phases of each lunation. They know the four quarters of the compass in reference to the daily position of the sun and have names for the four chief winds that blow (N. W., N. E., S. E., S. W.). They differentiate three kinds of clouds: – Cumulus, stratus, nimbus. The only constellation they have distinguished is Orion and they have discovered the Milky Way for which they have a name, and also call it "the way of the angels" (*morowin*, the daughter-messengers of Puluga).

Social Emotions.—The social emotions are not generally expressed. The Andamanese have no words for ordinary salutations, greeting or for expressing thanks. On meeting they stare at each other for a lengthened period in silence, which the younger breaks with a commonplace remark and then follows an eager telling of news, which an Andamanese always delights in hearing. Relatives however sit in each other's laps, huddled closely together at *meeting*, weeping loudly and demonstratively, and after a long separation this may last for hours. The Önges are less demonstrative and on such occasions shed a few silent tears only and caress each other with their hands. At *parting* they take each other by the hand and blow on it, exchanging sentences of conventional farewell.

Undemonstrative though they are, the Andamanese are readily roused to emotion, finding that difficulty in separating the real from the assumed observed

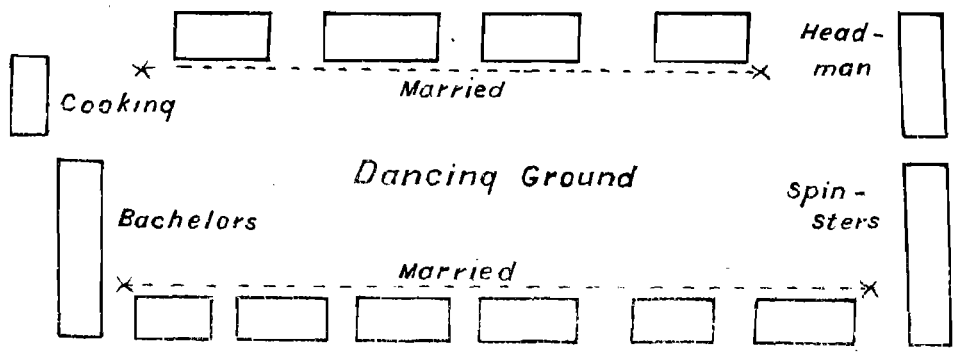
in other savages. At Government House, Calcutta, in 1895, when a party was told to sit down and weep to show the custom at meetings, in a few moments the weeping became genuine, and when after a short time they were told to stop and get up, tears were streaming down their faces.

General Capacities.—The Andamanese are good climbers, and rapid walkers and runners, moving with a free and independent gait, and can travel considerable distances at a time. The Jarawas turn their toes in, due to the necessity of stooping to pass along their paths through the tangled jungle. The Eremtaga are good but not remarkable trackers. The Aryoto are good swimmers and are much at home in the water. The Andamanese generally show a dexterity in getting about their thick and tangled jungles which baffles all immigrants, though in this respect the Eremtaga quite out-distance the Aryoto, and the Jarawas apparently all the others. In the jungles all shooting with arrows is necessarily at very short distance, and generally the Andamanese are good shots at short distances only, judging direction very well but distance hardly at all. They can however at the very short distance required for shooting fish allow accurately for refraction in moving water and will shoot their fish successfully even in the surf in a manner that is inimitable : this is really due to accurate judgment of direction.

The Andamanese are unadventurous seamen, poling and paddling their canoes with small spade paddles at considerable speed, faster than that of an ordinary ship's boat for a little distance though they could not paddle away from one in even a short chase, but they never go out of sight of land, have never been even to the Cocos (30 miles), nor to Narcondam and Barren Island, nor had they ever any knowledge of the existence of the Nicobars till our arrival. Man has a legend from Car Nicobar doubtfully going to show that the Önges from the Little Andaman once made raids on that island : but if this were true they would do so still.

IV. Habits and Customs.

Dwellings.—Except in the Little Andaman and among the Jarawas there are no fixed habitations, the search for easily obtained food and insanitary habits obliging the people to be nomads, for they have no practice of cultivation and domesticate no animal whatever except dogs obtained from the English. They thus dwell in various customary encampments, situate within their respective territories. At these encampments, usually fixed in sheltered spots, they erect about 14 temporary huts capable of holding up to 50 to 80 persons, arranged facing inwards on an oval plan always more or less irregular, thus—



The central space is the dancing ground. A hut is merely a thatch about 4 feet long by 3 feet wide, sloping from 8 inches behind to 4½ feet in front, placed on four uprights and some cross-pieces without walls. In unsheltered spots and at the Head-Quarters of Septs large circular huts are built with a good deal of ingenuity, having eaves nearly touching the ground. These will be as much as 15 feet high and 30 feet in diameter. For hunting purposes mere thatched shelters are erected for protection from the wind. Close to every hut is a very small platform for surplus food about 18 inches from the ground, and in it at least one fire is carefully preserved. This is the one thing that the Andamanese are really careful about for they do not know how to make fire, though

they show much skill in so carrying smouldering logs with them by land or sea that they are not extinguished. Their ignorance of this fundamental requirement of civilization is shown in their fire-legend that fire was originally stolen from their deity Puluga and has never been allowed to become extinct since. Excepting guns, nothing has more impressed the Andamanese with European power and resources than the use of matches, *i.e.*, of making fire whenever required with ease.

In the Little Andaman and among the Jarawas of the South Andaman, large permanent huts for use in the wet season are built up of solid materials to 30 feet in height and 60 in breadth to hold the fires of 7 to 8 hunting parties, say 60 to 70 people, *i.e.*, they contain 7 to 8 fires with about 8 persons to each "fire." The Jarawa hunting camp is much the same as that of any other Andamanese and his great communal hut is built on the same principle as the larger huts of the other Andamanese.

The use of the flimsy hunting shelters and camp huts of the Andamanese is rendered possible in the wet and stormy weather so common in the Islands by the denseness of the jungle, which prevents the winds from reaching them even when close to the sea-beach and causes the rain to fall vertically upon them.

Government.—There is no idea of Government, but to each tribe and to each sept of it there is a recognised head, who has attained that position by tacit agreement on account of some admitted superiority, mental or physical, and commands a limited respect and such obedience as the self interest of the other individual men of the tribe or sept dictates. There is a tendency to hereditary right in the natural selection of chiefs, but there is no social status that is not personally acquired. The social position of a chief's family follows that of the chief himself and admits of many privileges in the shape of tribal influence and immunity from drudgery. His wife is among women what he is among men and at his death, if a mother and not young, she retains his privileges. Age commands respect and the young are deferential to the elders. Offences, *i.e.*, murder, theft, adultery, mischief, assault, are punished by the aggrieved party on his own account by injury to the body and property or by murder, without more active interference on the part of others than is consistent with their own safety, and without any fear of consequences except vengeance from the friends of the other side, and even this is usually avoided by disappearance till the short memory of the people has obliterated wrath.

Property is communal, as is all the land, and ideas as to individual possessions are but rudimentary, accompanied with an incipient tabu of the property belonging to a chief. An Andamanese will often readily part with ornaments to any one who asks for them. Theft, or the taking of property without leave, is only recognised as to things of absolute necessity, as arrows, pig's flesh, fire. A very rude barter exists between tribes of the same group in regard to articles not locally obtainable or manufactured. This applies especially to cooking pots, which are made of a special clay found only in certain parts of the islands. The barter is really a gift of one article in expectation of another of assumed corresponding value in return, and a row if it is not forthcoming. The territory of other tribes is carefully respected without however there being any fixed boundaries.

The duties of men and women are clearly defined by custom, but not so as to make that of the women comparatively hard. The women have a tacitly acknowledged inferior position, but it is not such as to be marked or to leave them without influence.

Religion.—The religion is simple animism and consists of fear of the evil spirits of the wood, the sea, disease and ancestors, and of avoidance of acts traditionally displeasing to them, and this in spite of an abundance of mythological tales told in a confused, disjointed manner that is most instructive to the student of such things. There is neither ceremonial worship nor propitiation. There is an anthropomorphic deity, Puluga, the cause of all things, whom it is not, however, necessary to propitiate, though sins, *i.e.*, acts displeasing to him, are avoided for fear of damage to the products of the jungle. Puluga dwells now in the sky, but used to live on the top of Saddle Peak, their highest mountain. The Andamanese have an idea that the "soul" will go under the earth by an aerial bridge after death, but there is no heaven nor hell nor any idea of a cor-

poreal resurrection in a religious sense. There is much active faith in dreams, which sometimes control subsequent conduct and in the utterances of "wise men," dreamers of prophetic dreams, gifted with second sight and power to communicate with spirits and to bring about good and bad fortune, who practise an embryonic magic and witchcraft to such personal profit by means of good things tabued to themselves as these people appreciate. There are no oaths, covenants and ordeals, nor any forms of appeal to supernatural powers.

Puluga, who is fundamentally with some definiteness identifiable with the storm (*Wuluga*) mixed up with ancestral chiefs, has so many attributes of the Deity that it is fair to translate the term by "God." He has a wife and a family of one son and many daughters. He transmits his orders through his son to his daughters, who are his messengers, the Morowin. He has no authority over the evil spirits and contents himself with pointing out offenders against himself to them. The two great evil, *i.e.*, harmful, spirits are Erem-chauga of the Forest and Juruwin of the Sea. Like Puluga both have wives and families. The minor evil spirits are Nila and a numerous class, the Chol, who are practically spirits of disease. The Sun is the wife of the Moon and the Stars are their children dwelling near Puluga, but there is no trace of sun-worship, though they twang their bows and "chaff" the moon during an eclipse, and a solar eclipse frightens them, keeping them silent.

The Andamanese idea of the soul arises out of his reflection in water and not out of his shadow which follows him about. His reflection is his spirit, which goes after death to another jungle world, Chaitan, under the earth, which is flat and supported on an immense palm tree. There the spirit repeats the life here, visits the earth occasionally and has a distinct tendency to transmigration into other beings and creatures. Every child conceived has had a prior existence and the theory of metempsychosis appears in many other superstitions, notably in naming a second child after a previous dead one, because the spirit of the former babe has been transferred to the present one, and in their recognising of all Natives of India and the Far East as *chauga*, or persons endowed with the spirits of their ancestors.

Superstitions.—The superstitions and mythology of the Andamanese are the direct outcome of their beliefs in relation to spirits. Thus, fire frightens Erem-chauga, so it is *always* carried. They avoid offending the Sun and the Moon by silence at their rise. Puluga shows himself in storm, and so they appease him by throwing explosive leaves on the fire, and deter him by burning beeswax, because he does not like the smell. Earthquakes are the sport of the ancestors. There are lucky and unlucky actions, but not many, and a few omens and charms. Animals and birds are credited with human capacities, *e.g.*, convicts murdered by Jarawas have been found with heavy stones placed on them and stones have been found placed along their pathways. Every Andamanese knows that this is a warning to the birds not to tell the English that the men had been murdered and that the murderers had passed along the path in front.

Mythology.—The great bulk of the Andamanese mythology turns on Puluga and his doings with Tomo, the first ancestor, to whom and his wife he brought fire and taught all the arts and for whom he created everything. This line of belief is still alive and everything natural that is new is attributed to Puluga. Thus when the Andamanese were introduced to the volcano, Barren Island, on seeing the smoke from the top they at once christened it Molatarchona, Smoke Island, and said the fire was Puluga's.

The next most important element in the mythology is in the story of the cataclysm, which engulfed the islands and was of course caused by Puluga. It separated the population and destroyed the fire, which was afterwards stolen by Luratut, the kingfisher, and restored to the people. The population previous to the cataclysm became the *chauga* or ghostly ancestors.

Other stories relate in a fanciful way the origin of customs, *e.g.*, tattooing and dancing, of the arts, articles of food, harmful spirits, and so on.

An important ethnological item in these stories is the constant presence of the ideas of metempsychosis and of metamorphosis into animals, fish, birds, stone and other objects in nature. Indeed the fauna chiefly known to the Andamanese are ancestors changed supernaturally into animals.

Initiatory Ceremonies.—There are rudimentary initiatory customs for both males and females, connected with arrival at puberty and marriageability

and pointing to a limited tabu. On reaching puberty or thereabouts, between 12 and 16 years of age, abstention from about 6 kinds of food, each in turn, is voluntarily commenced and continued for some years. At the end of each abstention there are a few ceremonies and some dancing and the youth of both sexes become "grown up." There is nothing else to mark this period beyond the application of an honorific name while it lasts, no secret to be communicated, no religious ceremony. In after-life, however, men who have gone through the initiatory period together will not fight, quarrel, nor call each other by name. They will assume great friendship, while avoiding each other with a mutual shyness. The women also practise a limited tabu as to food during menstruation and pregnancy. The idea of tabu does undoubtedly exist as to food and every man has his own tabued articles through life, which is, however, usually something observed to disagree with him in childhood or to be unpalatable.

There are also limitations as to sexual family relations. Only husband and wife can eat together. Widows and widowers, bachelors and maidens eat with their own sex only. A man may not address directly a married woman younger than himself or touch his wife's sister or the wife of a younger relative, and *vice versâ*.

The tattooing is partly ceremonial, as a test of courage and endurance of pain, and so is painting the body with clays, oils, etc. By the material and design is shown sickness, sorrow or festivity and the unmarried condition.

Amusements.—The great amusement of the Andamanese, indeed their chief object in life after the chase, is the formal evening or night dance, a curious monotonous performance accompanied by drumming the feet rythmically on a special sounding board, like a Crusader's shield and mistaken for a shield by several observers, singing a song more or less impromptu and of a compass limited to four semitones and the intermediate quarter tones, and clapping the hands on the thighs in unison. The dance takes place every evening whenever there are enough for it, and lasts for hours and all night at meetings of the tribes or septs for the purpose. It then becomes ceremonial and is continued for several nights in succession. Both sexes take allotted parts in it. This and turtle hunting are the only things which will keep the Andamanese awake all night long. There are five varieties of the dance among the tribes: that of the Önge-Jarawas being an entirely separate performance.

Music.—The Andamanese appreciate rhythm and time, but not pitch or tune. They sing in unison, but not in parts, and can neither sing in chorus nor repeat or even catch an air. The key in which a solo or chorus is started is quite accidental. They can be readily taught any dance step and can teach it themselves from observation.

Song.—Every man who respects himself is a composer of songs, always consisting of a solo and refrain, and sings without action or gesticulation and always to the same rhythm. The songs relate only to travel, sport and personal adventures, never to love, children and the usual objects of poetry, and very rarely to beliefs and superstition. The wording is enigmatic and excessively elliptic, the words themselves being in grammatical order, but shorn of all affixes as a rule. As in all poetry unusual words are employed. But clipped as the wording is and prosaic as the subjects are, the Andamanese are far from being unable to give a poetic turn to their phraseology and ideas. The women have lullabies for their babies.

Games.—The Andamanese are childishly fond of games and have an indigenous blind-man's-buff, leap-frog and hide-and-seek. Mock pig and turtle hunts, mock burials, and "ghost" hunts are favourite sports. Matches in swinging, swimming, throwing, skimming (ducks and drakes), shooting (archery), and wrestling are practised.

Naming of Children and Adults.—Every child is named for life after one of about twenty conventional names by the mother, of course without reference to sex, immediately upon pregnancy becoming evident, to which afterwards a nickname, varying occasionally as life proceeds, is added from personal peculiarities, deformities, disfigurements, or eccentricities and sometimes from flattery or reverence. Girls are also given "flower names" after one of sixteen selected trees which happen to be in flower at the time they reach puberty.

The "womb-name" is called the *teng-l'ar-ula* and on the child being born, the words distinguishing sex by the genitals, *ota*, male, and *ata*, female, are prefixed to it in babyhood. The women's "flower name" precedes the *teng-l'ar-ula* till motherhood or advancing years, but is often used alone. As the "flower names" are of much interest, the following list of them is given in the Bea language. There are eleven of them and flowers, regarded as identical by the Andamanese, belong to trees sometimes of quite different species: a mistake that is made by peoples of much higher mental development.

Flower name.	Tree.	Flowering month.
Moda	(1) Semecarpus (Sp.) (2) Odina wodier	March.
Ora	Chickrassia tabularis	March.
Jidga	(1) Unidentified (2) Croton argyratus	April.
Yeri	Sterculia (Sp.)	April.
Pataka	(1) Meliorma simplicifolia (2) Terminalia procera	May.
Reche	(1) Eugenia (Sp.)	June.
	(2) Rubiaceæ	July.
Chagara	Pterocarpus dalbergioides	August.
Charapa	Unidentified	September.
Chenra	Leea sambucina	October.
Yulu	(1) Unidentified (2) Eugenia (Sp.)	November.
Chilip	Diospyros densiflora	November, December, January and February.

The people are now ignorant of the origin of the flower names or of the cause of the selection of the trees above mentioned.

The honorifics *maia* and *mam* are prefixed out of respect to the name of elderly males and *chana* to all names of married women. Girls are addressed by the flower name and the elders by the honorific. Names are not much used in addressing, but chiefly for naming the absent or in calling.

Marriage Relations.—The Andamanese are monogamous, and by preference, but not necessarily, exogamous as regards sept and endogamous as regards tribe or more strictly group. Divorce is rare and unknown after the birth of a child, unfaithfulness after marriage which entails the murder of both the guilty parties if practicable is not common, and polyandry, polygamy, bigamy and incest are unknown. Marriages are not religious, but are attended with distinct ceremonies. Marriage after death of one party or divorce is usual. Before marriage free intercourse between the sexes within the exogamous limits is the rule, though some conventional precautions are taken to prevent it.

Portman tersely describes the marriage ceremony thus—

"When the elders of a sept are aware that a young couple are anxious to marry, the bride is taken to a newly made hut and made to sit down in it. The bridegroom runs away into the jungle, but after some struggling and pretence at hesitation, is brought in by force and made to sit in the bride's lap. This is the whole ceremony. The newly married couple have little to say to and are very shy of each other for at least a month after marriage, when they gradually settle down together."

Marriages are the business of parents or guardians and they have a right of betrothal of children, the betrothal being regarded as a marriage. Marital relations are somewhat complicated and quite as strictly observed as among civilised communities. Old books on this point generally ascribe bestiality and promiscuity to the race, but quite wrongly.

Death Ceremonies.—Deaths occasion loud lamentation from all connected with the deceased. Babies are buried under the floor of their parents' hut. Adults are either buried in a shallow grave, or, as an honour, tied up in a bundle and placed on a platform in a tree. Wreaths of cane leaves are then fastened conspicuously round the encampment, and it is deserted for about three months. Burial spots are also sufficiently well marked. Mourning is observed by smearing the head with grey clay and refraining from dancing for the above period. After some months the bones of the deceased are washed, broken up and made into ornaments, to which great importance is attached, as mementos of the deceased and as they are believed to stop pain and cure diseases by simple application to the diseased part. The skull is worn down the back tied round the

neck, usually, but not always, by the widow, widower or nearest relative. Mourning closes with a ceremonial dance and the removal of the clay. The ceremonies connected with the disposal of the dead are conventional, reverential and by no means without elaboration in detail.

V. Arts.

Stone Implements.—The only stone cutting implement known to the Andamanese is the quartz flake chipped off, never worked, and held between the fingers for shaving and tattooing, and shells and fish bones are used for the small blades of the peculiar adze of this people, and for arrow points, scraping and cutting. A *cyrena* valve is the ordinary knife and scraper. Hammers, anvils, hones, and oven-stones consist of natural stones. They have never made celts.

The ends of glass bottles for some years, and iron from wrecks for a long time past, have been substituted for the indigenous implements, when and where procurable. The object of the long series of murderous raids made by the inland Jarawas on the outlying parts of the Penal Settlement has now been proved to have been made in search for iron. The implements on the whole are coarsely and roughly made.

Weapons.—The weapons of the Andamanese are bow and arrow, harpoon, fish spear, pig spear, and they have never had any notion of poisoning the blades, which however sometimes inflict dangerous septic wounds from dirt, though as a rule they are kept bright as a matter of pride. Barbed arrows and harpoons with loose heads are used for catching and pulling up game in the jungles and marking where turtle or large fish are sinking.

Domestic Arts.—Excellent information with illustrations on the domestic and other arts of the Andamanese is to be found in a minutely accurate work, Man's *Aboriginal Inhabitants of the Andaman Islands.*

String and Netting.—String for nets and all purposes is twisted, often neatly, from the inner bark of creepers. Large nets of this string are made for driving turtle and hand-nets for prawns and small fish and for wallets. Stout cord is made from the inner bark of the *melochia velutina.* Whole, split and scraped canes are used as binders.

Weaving.—The weaving is good, neat and stout, and baskets and mats are thus well made from strips of canes.

Pottery.—The unglazed circular clay cooking pots with rounded or pointed bottoms, to the Andamanese very valuable, are built up by hand, sun-dried and then baked, but not thoroughly, in the fire. They are often encased in basket work for safety. Their manufacture, form and ornament are typical of the Stone Age generally.

Wood and Cane work.—Buckets are hollowed out of wood or cut from the joints of the bamboo. Canoes are hollowed out of whole trunks of light, soft timber by the adze without the use of fire, do not last long and are only fair sea boats. They are however capable of holding many people and a good deal of light cargo.

Ornamentation, Personal and Domestic.—The personal ornaments made are—bunches and strips of fibres and leaves scraped, cut and hammered, fringes of dentalium shells and straw-coloured wreaths of hammered and roasted dendrobium bark. The bones, skulls and jawbones of deceased relatives are also used whole, or broken and scraped to fancy or requirement, as ornaments, besides necklaces of the bones of animals. Tattooing and painting the body are only ornamental to the extent that, in the latter case especially, deviations from the conventional designs are due to personal taste.

The only ornaments to dwellings and huts are the heads of turtle, pigs, iguana, paradoxurus killed in hunting. These are hung up partly as ornaments and partly as trophies, but not with any idea of record.

Every manufactured article has its own customary conventional line ornament in one or more of three colours and in one or more of eleven patterns approximately achieved only. The colours are red, white and brown from natural earths. The patterns are (1) chevrons, (2) close cross hatch, (3) wide cross hatch, (4) parallel lines, (5) parallels and chevrons combined, (6) lozenges, (7) plait or guilloche, (8) herring-bone, (9) cross cuts, (10) loops, (11) vandyke with scolloped bands and cross lines.

APPENDIX A.

POINTS OF AGREEMENT AND DIFFERENCE BETWEEN THE ANDAMANESE AND THE SEMANGS.

The Semangs are found in Northern Perak, Kedah, Kelantan, Trengganu, and Northern Pahang in the Malay Peninsula. They have come considerably under outside influence and especially under that of the wavy-haired (Sakai) and the long-haired (Jakun, wild Malay) tribes of the Peninsula and even of the civilised Malays themselves.

Points of Agreement of Semang with Andamanese.

Hair: In colour and growth.
Height: Men 57 to 58 inches, women $53\frac{1}{2}$ to $54\frac{1}{2}$ inches.
Skin: In texture and colour.
Shape of head: Mesaticephalic and brachycephalic.
Eyes: In colour and shape.
Food: In its nature and elaborate preparation.
Huts: In leaf shelters; with the Önge-Jarawas, in communal huts, though not so good.
Funerals: In ceremonies and probable former disinterment of bones.
Belief: In the bridge to Paradise.
Bows: With the Önge-Jarawas only.

Points of Difference between Semangs and Andamanese.

Face: In the great variation of the Andamanese face.
Implements: In the blow-gun and *poisoned* arrows and spears.
Hunting: In trapping game.
Feeding: Men before women.
Quivers: In having reed quivers; Andamanese stick their arrows in the waist belt.
Ornamentation: In quality and artistic merit.
Ornaments: In personal ornaments, and in piercing the nose.
Huts: In rock-shelters, cave dwellings, tree huts, barricaded huts.
Clothing: Of hammered barks; loin-cloth for men, petticoat for women.
Magic: In its practice and in use of magical designs.
Music: In nose-pipe and bamboo castanets.
Songs: In their nature.
Marriage: Based on purchase and in ceremonies.
Beliefs: In Shamanism, metamorphism into tigers of living men, in ideas as to "God."
Language: In its mixture with Malay and Mon; basis can be proved *perhaps* to be (? Önge-Jarawa) Andamanese, though the specimens I have seen afford very little hope of this.

Also a portion of the Semangs have fixed habitations and a rude agriculture, this latter capacity being entirely absent in the Andamanese.

APPENDIX B.

JARAWA RAIDS ON THE SETTLEMENT.

1872. Convicts robbed of tools and clothes between Aberdeen and McPherson's Strait.
1875. Four convicts killed on Kyd Island. [One convict killed and 2 captured (all runaways) at Lekerajoinga by the Beas for stealing their canoe.]
1878. Attack on Brigade Creek Andamanese Home: 1 man killed.
1880. Camp of friendly Andamanese attacked at Port Campbell.
1882. Andamanese skirmish with Jarawas at Goplakabang, but friendly signs at Kalatang.
1883. Five convicts killed at Ranguchang: 1 Jarawa woman captured.
1884. A Police Constable wounded at Maiilitilek: 1 Jarawa killed, 2 captured (1 wounded). Birds'-nest boat attacked at Ranguchang: 4 Jarawa women, 1 man (Habiyo) captured and released. Jarawa huts found in the Jarawa Khari Valley.
1885. Two convicts murdered at Ograbaraij: 2 Jarawa women captured and released.
1887. Andamanese camp at Chaual (N.-W. corner of South Andaman) attacked, 1 boy wounded.
1888. One convict killed and 1 escaped at Tusonabad and 1 killed at Mattra: 1 runaway killed: convict boat attacked at Tytler's Ghat in Port Mouat.
1889. Andamanese camp at Port Mouat attacked, 1 man wounded.
1890. Andamanese camp at Port Campbell attacked, 1 man wounded. One Jarawa child captured. Andamanese attacked at Motkunu in the Middle Strait. Three convicts attacked at Cadellganj, 1 killed, 1 wounded. Two Jarawas killed at Talalunta.
1891. One convict at Bindraban wounded.
1892. Andamanese camp at Bajajag attacked: 1 girl killed.
1893. Andamanese camp near Homfray's Strait attacked: 1 man killed, 1 wounded.
1894. An Andamanese, turtle hunting, was killed at Port Mouat.
1895. Two convicts killed at Cadellganj. Two Rutland Island Jarawas captured and released.
1896. One Jarawa wounded by an Andamanese at Bluff Island (Port Anson). Attack on Andamanese Camp at Goplakabang. Jarawa communal hut discovered at Constance Bay.
1897. One convict killed at the Tarachang Home. Jarawa village found on Torabi Hill, Port Campbell: 3 Jarawas and 1 woman wounded. Three convicts at Cadellganj killed.
1898. Ration boat in Shoal Bay attacked at Jirkatang: 1 convict and 1 police constable wounded.
1899. Jirkatang temporary convict barrack attacked: 2 convicts wounded: 1 Jarawa wounded: 1 friendly Andamanese wounded.
1901. Three convicts killed: 2 wounded at Cadellganj and Jatang.
1902. Two convicts killed at Jatang: 1 Jarawa child captured at Talalunta and 2 women, 2 children and 2 boys captured at Wibtang, Mr. Vaux killed at Wibtang.

APPENDIX C.

PAPERS CONNECTED WITH PROCEEDINGS IN RELATION TO THE JARAWAS IN 1902.

These papers contain the only valuable record of proceedings in connection with the Jarawas and their country that exists.

They show the difficulties and dangers that attend those who venture into the interior of the Andamans.

I.

PORT BLAIR, THE 26TH FEBRUARY 1902.

The Chief Commissioner announces with the greatest regret the death of Mr. Percy Vaux, Seventh Assistant Superintendent, who was killed by the Jarawa Tribe on the night of the 24th February 1902. The Commission loses in him a most promising officer.

The distressing circumstances under which this officer suddenly lost his life renders his loss all the more deplorable. He was killed during a struggle with the hostile tribe of the Jarawas just as he was about to complete what had otherwise been a most successful series of operations, in which he had exhibited much courage, endurance and skill. The circumstances which caused his death are as follows:—

The marauding parties of Jarawas that almost every cold season make raids on the outskirts of the Penal Settlement, this season, in November 1901 and January 1902, raided the Forest Department gangs working at Jatang, about 25 miles north of Port Blair, killing and wounding convicts at their work. A party was organised in consequence to try and discover their haunts in the jungles and to put a stop to further raiding, but on a somewhat larger scale than usual, as the two last raids appeared to be more purposeful than hitherto.

The officials detailed for the duty were Mr. Percy Vaux, Officer in charge of the Andamanese with Mr. Bonig, Assistant Harbour Master, and Mr. C. G. Rogers, Deputy Conservator of Forests. Men from the Andaman Military Police Force and picked Andamanese trackers accompanied them.

Mr. Vaux proceeded up the West Coast of the South Andaman on 25th January 1902 and was successful in the very difficult operation of discovering the camps and paths of the Jarawas in the hills above Bilap Bay, about 8 miles north of Port Campbell. He then on the advice of the Andamanese with him proceeded northwards to Port Anson and thence to Pochang in the South Andaman at the southern extremity of that harbour. Here, with much skill and difficulty he discovered the main Jarawa track running southwards from the harbour, and also the chief place of residence of the Jarawas during the rains. Having accomplished this, Mr. Vaux returned to Port Blair and brought with him a much fuller report upon this practically unknown tribe than had hitherto been made. Mr. Rogers meanwhile was endeavouring to work his way direct from Jatang on the east across the South Andaman to Ike Bay on the West Coast, right athwart the country believed to be occupied by the Jarawas.

Mr. Vaux was then directed to join with Mr. Rogers and make further investigations at Pochang, and after ascertaining that the main Jarawa path led southwards beyond Pochang indefinitely, the party returned to Port Blair. This expedition accomplished part of the objects aimed at, in that it showed where the Jarawas started from on their raids and proved that the object of their unprovoked murderous attacks on parties from the Settlement working in the jungles was to procure iron and iron implements, and not to procure water and food as hitherto supposed.

On 17th February 1902, the party was reorganised thus:—Mr. Vaux with Mr. Bonig, 12 Police and Andamanese; Mr. Rogers accompanying them. The general object was to discover the southern termination of the main Jarawa path and to drive the Jarawa marauders northwards along it and away from the neighbourhood of the Settlement. The party started as before along the West Coast and, on the advice of the Andamanese, searched the jungles about Island Bay, some 10 miles north and north-east respectively of the outlying villages of Templeganj and Anikhet. This was a task of much difficulty, and in the course of the search, in three parties under Messrs. Vaux, Rogers and Bonig, Mr. Vaux came in the evening upon a hunting camp of the Jarawas. Judging from its position and distance from the chief home of the tribe at Pochang, he inferred that the party's real object was a raid on the Settlement villages. He successfully rushed the camp by moonlight and discovered, among other things, a large new Forest Department adze, which had been taken from a convict wounded in the Jarawa attack on Jatang in November 1901. This confirmed him in his suspicions as to the reason of the hunting party's presence so close to the Settlement. None of Mr. Vaux's party was hurt in this attack, the Jarawas being too startled to shoot.

In their flight the Jarawas left in the camp a baby and a small girl. This circumstance, and also the advice of the Andamanese as to further proceedings, determined Mr. Vaux to proceed to Port Anson, to the Andamanese Home there, where the children could

be taken care of. Adopting generally the advice of the Andamanese, Mr. Vaux then proceeded again to Pochang and followed the main Jarawa track southwards steadily, which proved, beyond Pochang, to be an exceedingly difficult affair. The party proceeded about 15 miles march beyond Pochang in a south-east direction to Wibtang, a point about 6 miles west of Port Meadows and some 18 miles from Jatang: thus showing that the chief Jarawa haunt is the jungle between the mouth of Shoal Bay and Port Anson. At Wibtang an occupied hunting camp was found to block the way further and Mr. Vaux judged it necessary to rush this camp at night as he had the previous one. For this purpose he selected one Police Constable and 16 Andamanese; and there were besides these himself, Mr. Rogers and Mr. Bonig, and three servants: altogether 23 men.

The camp was rushed about 10 P.M. on the night of the 24th February after the moon had risen. Mr. Vaux went in first, followed by Messrs. Rogers and Bonig, the Andamanese coming up immediately behind. There was no real resistance, but as Mr. Vaux was stooping down in a hut grappling with two Jarawas, his foot disturbed the smouldering embers of a fire, which blazed up, exposing him to the view of a man in another hut, who shot two arrows at him, and decamped. These were the only two arrows shot in the affair, but one of them, a barbed iron-headed arrow, entered Mr. Vaux on the left side between the ninth and tenth ribs with great force, killing him almost immediately. Next morning, as soon as it was possible to see, Mr. Rogers carried back the body with many difficulties through the jungles to Pochang and Port Anson, reaching that harbour in the evening, whence the body was conveyed in the steam launch *Belle* through Middle Strait to Port Blair arriving about midnight on the 25th February. Two women and six children were found in the camp after the attack, who accompanied Mr. Rogers' party to Port Anson and onwards quite cheerfully, and it has been ascertained that the children found in the first camp rushed are closely related to one of these women. European iron implements were found in this camp also. These facts prove that the men in both camps were of the parties which actually attacked the Forest Department convicts at Jatang in November. A number of implements of offence were found in both camps and have been removed. In fact these particular bodies of marauders have been deprived of means of offence for some time to come.

Mr. Rogers deserves the greatest credit for his rapid march back through the jungles, during which one of his party was slightly wounded by a couple of Jarawas, who however decamped on being fired on. So also does Mr. Bonig for his skilful management of the steam launch *Belle* through so narrow a passage as Middle Strait at night. The conduct of the Police on the return march was exemplary.

The object then of the operations which Mr. Vaux, with the assistance of Mr. Rogers and Mr. Bonig, conducted with such conspicuous endurance, courage, and skill has been entirely carried out. Precise information has been obtained of the location of the Jarawas, of the real object of their annual raids, of the best mode of reaching them, and they have been taught that they cannot raid and murder with impunity. The return of the captured women will teach the tribe something of ourselves and that we have the power, if we choose, to take their families away from them. Thanks also to the energy and determination of Messrs. Vaux and Rogers, much knowledge of the nature of the country and forests in the hitherto untouched interior of the South Andaman has been gained, and it is very satisfactory to note that the parties of Jarawas punished belonged to the actual perpetrators of the latest raids. No operations in relation to the Jarawas have hitherto been anything like so successful. It is therefore all the more to be deplored that the leader should have lost his life in the chances of a struggle. It is a still more regrettable circumstance to record that the life need not have been lost, for at the last moment Mr. Vaux made an error in judgment in not waiting as usual for the Andamanese to rush into the camp first. Had this been done, it is more than probable that no life would have been lost. But it has been ascertained that he feared that if he did so the Andamanese accompanying him would kill all the men they could and that the rest would escape with most of their weapons and stolen property. It was to avoid this that he determined to go before them when the word was given to attack, and thus he lost his life in a laudable, though mistaken, attempt to save bloodshed.

II.

EXTRACTS FROM REPORTS AND DIARIES OF TWO RECONNAISSANCES OF THE COUNTRY SUPPOSED TO BE OCCUPIED BY THE JARAWAS.

First Reconnaissance.

Extract from the Report, dated 8th February 1902, from the late Mr. P. Vaux, Officer in charge, Andamanese, Port Blair, from 25th January to 4th February, 1902.

25th January.—Left Port Blair at 6-30 P.M., in the steam launch *Belle* with Mr. Bonig, Assistant Harbour Master, a Havildar and 6 Constables of the Port Blair Police and a party of 15 Andamanese. Reached Macpherson's Strait at 9 P.M., and anchored for the night.

26th January.—Weighed anchor at 9 A.M., the delay being due to our giving the Police and Andamanese a run on shore. Proceeded on to Port Mouat to take on an Andamanese canoe. Left as soon as possible and proceeded to Constance Bay. We landed

here and found some self-supporters from Templeganj. One of these men told me a story about some of his villagers being attacked by Jarawas two days before, and I thought it worth while to send for the Chaudhri and the villagers. On their arrival they all denied having ever seen anything of the Jarawas and denied having spread any such report. There seemed to be no truth whatever in the story; so I sent them all back. Anchored here for the night.

27th January.—Started from Constance Bay at 7 A.M., and arrived at Port Campbell at 11 A.M. I sent a party of Andamanese and Police into the jungle to the south, to try and pick up traces of the Jarawas. I and Mr. Bonig searched with others along the shore but found no recent traces. Mr. Bonig picked up an old bow and a basket. It seems probable that the Jarawas have not camped here since the man was shot by the Census party last year. The Police and Andamanese returned in the evening without having found anything. The Janglis had a grand turtle hunt in the evening, shooting some dozen turtles and a small pig, the latter a splendid running shot by quite a young boy. There was so much excitement over the turtle hunt, that those on the launch thought we were being attacked, and the remaining Police and Andamanese came hastening off, including the women, the latter with piles of arrows.

28th January.—Up to to-day we had done nothing, but from to-day the real business began. Mr. Bonig and I each took a party and we began a systematic beat of the jungle. We arranged for Mr. Bonig to examine the coast to the north and the adjoining jungle, while I beat the jungle in the interior. My party consisted of 5 Andamanese and 3 policemen, Mr. Bonig taking the remaining Adamanese and Police, except a guard of two of the latter who were left on board. I rowed off in the dinghy at 8 A.M., and landed on the northern shore of Port Campbell opposite the southern extremity of Clyde Island. Here we searched in the dense jungle about the swamps and hills, and came upon the footsteps of Jarawas, some old and some fairly recent. About 10 o'clock we came on the fresh traces of a Jarawa. There was only one man, and he was evidently hunting, but after following his tracks for a considerable distance we gave it up, as he was obviously after game, and his tracks led nowhere. It was not until midday that we came upon a Jarawa camp. Amid considerable excitement we surrounded it, only to find it empty. Our Andamanese at once seated themselves in the huts, and lit their pipes. This I discovered afterwards was their universal procedure. It was a five-hut camp—three large huts in the middle and one at each side, at a little distance; these latter our Janglis explained were for look-outs, where only men slept. The Andamanese said it had not been occupied since the rains. It was substantially built, with stout *ballîs*, and was well thatched. A string of pig skulls was hanging from the roof, besides this an old basket and an arrow was all we could find. The Andamanese told me the Jarawas would use it again next rains. The huts were on slightly rising ground alongside a fresh water stream. We waded up the stream between 2 and 3 miles, sometimes waist deep, and frequently knee deep. It was here that it first struck me, that the theory of the Jarawa raids being due to scarcity of water was unfounded, and of this, as will be seen, I had plenty of confirmation before returning to Port Blair. In the course of the day we came on several water holes and springs. When not walking along the course of the stream, we were literally wriggling through the dense jungle up and down hill. We got out on the coast again about 4 P.M., and reached the boat about half an hour later. We had been walking from 8 A.M. to 4 P.M., with perhaps one hour's rest, certainly not more, taken in intervals of about 10 minutes at a time. Yet I doubt whether we covered more than 15 miles. But no walking in the world could be more fatiguing, as we were bent double creeping through the dense jungle, every shrub of which seemed to bear a thorn. We then had a two-hours' pull back to the launch, as by this time it was quite low-tide and there was shoal water all around. We reached the launch at 6-30 P.M., Mr. Bonig and his party returning only a few minutes earlier. He reported having come on fresh Jarawa footsteps on the sea shore, at a Bay called Beliep, in Andamanese, north of Ike Bay. He also reported finding three anchors and a quantity of iron kentledge on the sea-shore close to Bilep, evidently from the wreck of a barque. I do not know whether this has been reported before. The wreck, he informs me, must have been quite an old one.

29th January.—As the traces of the Jarawas all seemed to be to the north of where we were, we left Port Campbell at daylight and anchored at Bilep at 7 A.M. Here we again divided into two parties, mine consisting of 7 Andamanese and the policemen, and Mr. Bonig's of similar numbers. Two policemen were left on board, one of whom, however, had fever. This constable was ill from start to finish and never landed at all. I rowed up a creek in the dinghy a little to the south of Bilep Bay, Mr. Bonig going up another creek in his boat which flows into the Bay. The creek I went up is called Gering-chapa-jig by the Andamanese; it was a fine broad piece of water quite as big as Brigade Creek. We were now in the heart of Jarawa country and every precaution was observed. The dinghy was rowed for, I suppose, a little over a mile up the creek. On either bank, signs of Jarawas were visible in the shape of felled saplings and leaves. At every bend in the creek the Andamanese drew their bows and fitted in their arrows, and at the least sound in the jungle they stood up in the boat with full drawn bows, as it was possible to have an arrow into the boat any minute. However, nothing happened, and soon the creek got too shallow for the boat, and we hauled it up high and dry, and tethered it to a tree. We then all proceeded up the river bed in the same order as yesterday, an advance party of Andamanese, then myself and the Police, and another party of

Andamanese in the rear. We soon came upon the track of Jarawas. First of a man, then of a man and woman, and then also of a child, all proceeding up the gorge. The river, or mountain stream, was of a most difficult nature to climb. It was very deep in parts, and most of the time at the commencement we were knee deep, often waist deep, and once when I slipped into a pool I had to swim. Similar accidents befell the Police, and these experiences have altogether dispelled the water theory of Jarawa raids as far as I am concerned. At times we reached almost insurmountable walls of rocks, which we had the greatest difficulty to get over. Sometimes I had to be hauled up the slippery rocks by the Andamanese, at other times we crawled through water-channels underneath them, and at others we were creeping through the leech-infested jungle on either side slowly working our way up the channel. The higher we got up, the more tracks were visible and we were evidently on a Jarawa highway, as men's, women's and children's footsteps could be seen ascending and descending. At about 1 P.M. we were evidently near an encampment. Trees were arranged as bridges over some of the boulders and pools and a beaten track was found on the side of the jungle where the river bed was impassable. Saplings were seen cut on every side and in one place a cold fire and a few shells were found. At last we got to level ground where the boulders ceased and the mountain torrent became a stream. We waded through deepish water for a fairly long distance. It was very cold as the sun could not penetrate the dense jungle. As the signs of Jarawas increased so did our excitement. At last about 2 P.M., the Andamanese seemed nonplussed, but after searching here and there went up a beaten track without hesitation, which ascended a hill, and there was the Jarawa camp. We approached it with the utmost caution, only to find it empty. It was a six-hut camp, arranged with the usual two look-out huts at the sides; it had been left about a week, and there were only pig skulls and an old basket in it. After a short rest we turned home-wards down at Jarawa path. These paths are quite clear, branches and saplings being felled on either side, and except that they are made for small people are quite as good as dacoit paths in Burma. Thinking all was over we proceeded quite carelessly, when suddenly the Andamanese spread themselves out with every sign of excitement and a column of smoke could be discerned and afterwards huts. With the utmost caution again we approached and again found the huts empty. The occupants could only have left six hours before at earliest. The logs were smouldering, boiled prawn heads were strewn about, water vessels made of leaves with water in them were in the huts, and everything betokened recent habitation. But no cooking pots or bows were in the huts, some baskets, arrows, and a child's bow were all that we could find. The Andamanese were doubtful whether the Jarawas would return, saying no property of value had been left. Still I determined to wait and we lay in ambush round the camp. This was an eight-hut camp, and built just as the others were. After about half an hour there was a distinct cry from the direction of the camp we had previously visited, another cry followed, and afterwards two fainter ones. I believe myself our visit to the first camp had been discovered, and the cries were cries of warning. At about 3-30 P.M. the Andamanese said the Jarawas would not return and that we must get back. This I did not altogether believe, but after much consideration I concluded that there was nothing else to be done. We had many weary miles to travel through cold water, and break-neck boulders, and leech-infested jungle. So with the greatest reluctance, I gave the order to turn homewards by a Jarawa track, which led into a small stream which in its turn flowed into the big mountain stream of our morning's ascent. We hurried down the river bed, floundering over the rocks, falling up to our necks in the pools, and jumping and tumbling down the semi-precipitous track. In such haste were we that even the Janglis occasionally stumbled and fell. In spite of all our haste, night was soon upon us. It was dark at 6, so thick was the jungle on the banks of the stream, and from 6 to 7 we staggered along in what had become pitch darkness. It is difficult to say which was the worst, stumbling and falling over the steep, slippery rocks, or forcing one's way in the black darkness through the pathless, thorny jungle. It is a mercy that no serious accident occurred. At 7 o'clock I thought it hopeless to go any further, and though no one had eaten anything since leaving the launch I thought it better to camp where we were. But the Andamanese said they would manage it. They had now found a clump of bamboos, and cutting these they splintered them with stones, and set them on fire. Thus each holding a torch we completed the last few miles to the boat, over the rocks, through deep water and under and through the jungle. It was as rough work as one can well imagine, but infinitely better than the horrible half hour of inky darkness that had preceded it. At last at well past 8 we reached the boat. The tide was out and we had great difficulty in launching it and getting it over the first quarter of a mile. Then we got into deep water, pulled out of the creek, and finally reached the launch at 9-30. We had been absent 13½ hours, and must have been wading, climbing and stumbling at least eleven of them. We must have gone well over 20 miles. The Police with me again behaved excellently, though they were nearly done up: so was I, and even the Andamanese, though still full of laughter and cheerfulness, admitted they were very tired. Mr. Bonig was waiting on board, but his report was very disappointing. After hours of jungle work, he had come on the track of four or five Jarawas crossed into my river bed, followed them a long way down it, then through the jungle and out on to the sea coast near the launch. There he discovered that they had not only escaped, but that they had looted his boat, taking two of the four rowlocks (thoughtfully leaving him two to pull the boat back with, the only considerate thing I have ever heard of Jarawas doing), an old knife belonging to an Andamanese boy, and the bucket, and then gone off into the jungle. They had sat under a tree looking at the launch for an hour-and-a-half, within full view of

those on board. There were two policemen on board. There were also an Andamanese boy Henry, who was lame, through having fallen on the rocks two days previously, three Andamanese women, the whole of the crew, free and convict, and a lame convict *mullah*. Out of all these people none had the sense to get the Andamanese canoe along-side, get it manned and row over and approach the Jarawas. The rest of us had done all we possibly could to come up with Jarawas and here they were in sight of over a dozen men waiting to be approached, and were allowed to remain and to leave unmolested. After the hardships we had been through, this piece of news was really too discouraging. I may as well add here what had really happened, though this we did not discover until a careful examination of the tracks the following day. A party of two or three men, a woman, and a child had left the last huts I had visited early in the morning. Proceeding by a Jarawa track, to the river bed, their high-way to the sea, they had come on the tracks of my party and followed them down to see who we were, and where we had come from. Having arrived at nearly the bottom of the river they broke off through the jungle in order to avoid the deep water, and came out on the coast, thus missing my boat. Here they found the launch, and after watching it for an hour and-a-half, and finding themselves unmolested, they had strolled off and found their way to Mr. Bonig's boat. Having looted this they returned, either to the huts from which they came, or to some others near by. While they were following my tracks Mr. Bonig and his party had come on theirs, and were hurrying after them as fast as possible, arriving an hour too late, and it was then too late to hunt them further so they had had the narrowest escape. I had been an hour or so too early for them, Mr. Bonig a bare hour too late, while the people on the launch had had them in view for a whole hour and more and had done nothing.

30th January.—To-day was a day of comparative rest. As our efforts to come across the Jarawas in the jungle had all been fruitless, we tried to tempt them to attack us. For this purpose the Andamanese were ordered to bathe and play about on the beach, the three women we had with us being landed with the rest. Only two policemen, Mr. Bonig and myself landed and strolled about in an unconcerned manner. But all to no purpose. The wily savages, either from fright or some other reason, declined to oblige us. The Andamanese said that finding so many people about, they had gone to give intelligence to the remainder of the tribe. However that may be, we could see no signs of them and at half past one after frequent blowing of the whistle we left, Mr. Bonig took the steam launch up to Kaichwa Bay, while I marched up the coast. I found an old shelter on the shore close to Port Campbell, and after that the whole way up the coast the only sign I could find of them was an old piece of wreckage with nails in it, out of which the Jarawas had evidently removed several nails. After the last two days' operations the journey was quite an easy march of 8 miles or so along the beach. On arrival I found Mr. Bonig had taken a party in to search the jungle. He returned at 6 P.M. having found no signs of any one.

31st January.—Left Kaichwa at 6 A.M., for Port Anson, arriving at 9 A.M. Picked up two Andamanese who knew the country well here and proceeded to the southern end of the harbour called by the Andamanese Dum-la-chorag. Set off for the shore at once with four policemen and a large party of Andamanese. We rowed a short way up a creek called by the Adamanese Dum-la-chorag-jig, and then landed in the mangrove swamp, taking the precaution to hide our rowlocks in the jungle. We marched through this for 2 or 3 miles. It was fairly open ground, but the mangrove mud was rather trying walking. At the end of the swamp we divided into two parties and separated to search for tracks. My party soon picked up some footsteps, and after a little hesitation found a Jarawa path and proceeded along it. This was of the same description as those I had previously struck and I knew we were on a Jarawa highway. After going about a quarter of a mile we overtook Mr. Bonig's party, which had struck the track a little sooner. We all proceeded along together, and after going up and down hill for 2 or 3 miles, as we ascended a steep hill, a clearing was visible through the jungle. With extreme caution the Andamanese advanced, and on the summit sure enough was the big Jarawa camp. The Andamanese call the place Pochang, and it was as far as I can judge 5 miles from the mouth of Dum-la-chorag-jig Creek. We advanced to the hut and found it empty. After seeing the substantial hunting huts erected by the Jarawas in the jungle, I had been prepared for a big house, but I never expected such a large, well constructed building. It was roughly oval in shape, the length being 60 feet and the breadth 40 feet, while it was 54 yards in circumference. Seven stout posts in a rough circle in the centre of the house were the main supports of the roof. These were about 17 feet in height, and some were 8 inches in diameter, and all were barked and smoothened. Rafters stretched from these to bullies on the outer circle, where the roof sloped to about 3 feet from the ground. Except that it had no floor it was quite as good as an ordinary Shan or Karen house, and was large enough to contain from 80 to 100 people. From the top of the roof, between the 7 centre posts were suspended, on strips of cane, 9 or 10 feet long, over 250 pig skulls, neatly fastened up in basket work. Below the skulls was the big fire-place, around the sides of the hut were the smaller fire-places, evidently used by separate families. There were about half-a-dozen of these, but when the house is in full occupation there would be at least a dozen. Each fire-place consists of four stakes driven into the ground. Between these the fire is lighted, and some 3 feet from the ground a piece of neat matting like a chick is fastened to the stakes so as to form a shelf for the meat, etc. A dozen well made vessels which the Andamanese said were honey pots were suspended from the rafters, as well as baskets of all sizes, unstrung bows, leaf water vessels, and other things. The thatching was decorated with

bunches of leaves like fans used in their dances, and of these there were hundreds. Several children's bows were found, also wooden balls for them to play with, and a rough circular piece of wood which the Andamanese said was rolled along, and into which they shot their arrows. There was a large *degchi* made out of a tree trunk fitted into one of the honey pots, and neatly-worked mats used as shelves for the food, and also I think to sit on. Among other things I discovered a glass bottle, and it is worthy of note that they had a stock of firewood chopped and tied up with cane ready for use in one corner of the building. The house was on the summit of a hill, and there were seven paths leading up to it. All were well cleared at their opening on to the hill and each could be commanded by a man with a bow and arrow. Over two of the entrances were raised platforms of logs sloping from the ground to about 3 feet in height. These were the look-outs and each commanded a path and my own impression is that when the camp is in habitation, over each path a similar platform is erected, and each path thus well commanded. The main approach leading due north was as well cleared as a Forest Department road, and must have been 15 yards broad at the exit from the camp. Large trees had been felled and saplings cut a foot from the ground, and around the hut the grass had been cleared as carefully as at a jungle pongyi-kyaung in Burma. They had even taken the trouble to cut down several large trees, one quite 5 feet in diameter, evidently to have a view of the next ridge. In fact so much care had been taken both in the building of the house, and the clearing of the precincts, and so well were both done, that it is difficult to believe that savages have been able to do this unaided. The Andamanese say there is another, possibly two similar huts to this. They say that the whole Jarawa tribe collects in one of these in the rains. I am rather doubtful myself whether the whole tribe could occupy the house; I rather think they under-rate their numbers, as the traces of them on every side in the jungle make me think there are from 80 to 100 men, whereas the Andamanese put down their numbers at 100 all told. They say that they burned a similar hut to this some years ago at Maiilitilek. In the dry weather the Jarawas scatter hunting and live in their hunting huts.

After exploiting the house we considered what was best to be done. At first we determined to camp in the house for the night, and for that purpose sent back a party to bring up food. Then leaving a guard of Police and Andamanese we went down the main path towards the north. It was very easy going, and though it narrowed from its 15-yard entrance to a path only wide enough for a man, there was no difficulty in getting along. We, however, found no fresh traces, indeed the only track we saw was that of a man who the Andamanese said was going to look after the house. They explained that every two or three days in the dry weather a man or two goes to see that nothing is wrong with the house. After proceeding about a mile we again considered what it was best to do, and eventually I came to the conclusion to leave the house and to return. I took one specimen of everything to take back to Port Blair, and left everything else in its place so as not to frighten the Jarawas. We then returned as fast as we could, reaching the launch at 6 P.M. To-day's expedition was not a hard one. We had had a tramp of 5 miles or so to the camp and a mile further on and back, so the whole day's march was not more than 12 or 13 miles.

February 1st.—Started from Port Anson at 6 A.M. and arrived 10-30 A.M. at Port Blair. Received orders to start the next day, and return with Mr. Rogers.

February 2nd.—Left Port Blair at 7-45 A.M. and arrived at Duratang at 10-45 A.M. Proceeded on to Jatang at 11-30 A.M. Met Mr. Rogers and handed him the Superintendent's letter. Returned with him at once getting back to the launch at 4 P.M.

February 3rd.—Started at day-break and anchored in Port Anson harbour at Dum-la-chorag at 9 A.M. Started off for the Jarawa house in boats at 9-30. On this occasion we pulled considerably further up the creek so as to avoid as much as possible of the mangrove swamp. On landing we almost at once came on the fresh tracks of five Jarawas, so leaving a guard of one policeman and several Andamanese at the boat, Mr. Bonig and myself followed them for about half a mile, but as we found they were only following our tracks of Friday we returned, and all made for the Jarawa camp at Pochang. We arrived about noon. We found the Jarawas had visited it since our discovery of it on January 31st and had carried off all the more valuable articles, such as the *degchi* and the honey pots. I had feared this when we came on their fresh footsteps. They had also slightly dismantled the house so as to make rude barricades on the unprotected approaches. I sent our Andamanese into the jungle to see that there were none lurking near, and then Mr. Rogers photographed the house, exterior and interior, while Mr. Needham, who was also with us, sketched it, after which we removed all the remaining baskets and other belongings, and cut down the pig skulls in the centre. After this we collected the Andamanese and they executed a war dance with the Jarawa leaf-fans. Then gathering up the trophies, consisting mostly of pig skulls, we returned to the launch, arriving at 4 P.M. Weighed anchor and proceeded to the Andaman Home at Port Anson, where we remained for the night.

February 4th.—Left Port Anson at 11-30 A.M., arriving at Port Blair at 4-30 P.M.

The four policemen who accompanied Mr. Bonig and myself on our several marches worked very well, and were always close to us. The work of the smarter boys among the Andamanese was splendid, and their tracking was a revelation to me. Their unerring knowledge of the jungle too was marvellous. For instance they had only visited Gering-chapa-jig once previously and that years before. Yet without a compass and with hardly a glimpse of the sun to guide them, they never faltered, knew exactly where they were and took the nearest way home. Two or three of them afterwards pointed out our position

correctly on the map, and told us where we should have to go to find the Jarawa Head Quarters. Without them we should have accomplished nothing. I am rewarding them suitably for their good work.

Extracts from the Report and Diary from Mr. C. G. Rogers, Deputy Conservator of Forests, Port Blair, from 26th January to 4th February 1902.

My party went out into the forest beyond the Jatang camp, but did not find any traces of Jarawas. They were out the whole day long and returned in the evening to camp. As they returned very late to camp on the evening of the 28th, I gave them a day's rest on the 29th and started on the 30th myself for a three days' trip into the interior.

The Andamanese sent were all young and, I think I may say, inexperienced men, for we came upon comparatively recent tracks of the Jarawas and a fresh camp, which I think they must have occupied the night before they killed the two convicts on the 11th January last and they absolutely failed to follow up this clue.

As soon as I had satisfied myself that the Andamanese were not working properly and that they were only moving in circuits and not going far from camp, I took the direction of our course into my own hands and steered due west.

We passed over a succession of hills, chiefly running in a generally north and south direction, and crossed a large number of streams, also for the most part flowing south or north. Many of these contained running water which was shallow where it was flowing (6 to 9 inches deep), but contained a large number of deep pools. Two at least of these streams contained fresh water fish, 8 to 12 inches long, and, I think, may be considered to be perpetual water-supplies which never dry up. The water in them was deliciously cold and perfectly sweet and good. The sun only shines on the water in the midle of the day, so they lose very little water by evaporation.

There is infinitely more water in the interior of the island than there is near the coast and the Jarawas can never have come to Jatang or other places where they have attacked convicts—in my opinion—in search of water. Pig tracks were also plentiful. All streams mentioned in my diary contained a good supply of drinking water.

We saw no foot-prints of Jarawas while going west. They, I think, chiefly use the beds of the streams as thoroughfares and do not as a rule go straight across country; though they would cross some ridges to go from one stream to another.

Near the place where we camped on the night of the 30th, we found a prickly cane cut with a *dah*, which showed that the Jarawas had been up that stream some time.

I never saw the sea on the West Coast, nor do I exactly know how far across the island I reached, but think that I must have crossed about half-way, and that with five days' provisions it would be possible to cross and recross the island near Jatang if you go due west through and over everything and due east back again.

I noticed some padouk near Jatang beyond where the working for London squares had gone.

After we had passed the first large stream running south, I saw no padouk. The forest seemed to be very poor, to contain but few large trees, and to be composed chiefly of small poles or trees and a dense matted undergrowth of canes, creepers and creeping bamboos, which made it very difficult to force one's way through it and formed an efficient screen against the sun.

The map does not accurately represent the nature of the interior of the island. There must be nearly 20 ridges to be crossed in going from Jatang to Ike Bay.

Most of these are not very high, probably not more than 300 to 500 feet, while some of them are as much as 800 to 1,000 feet I think.

The consequence of my having taken the Andamanese straight up and down all the ridges going north and south was that they told me, when I had decided to turn back, so as to reach Jatang while our provisions lasted, that they were absolutely unable to take me back to Jatang. So I had to guide the party across the island myself by means of a compass which I carried with me and was much relieved when the Andamanese recognised (at 3-30 P.M.) what they thought was Jatang Hill and Duratung, as I then knew that we should reach Jatang some time the next day.

The party I took with me consisted of 8 Policemen, 1 Orderly, 10 Andamanese, and their *pahrawalla*, 4 convicts as coolies, and an office peon and one of my *mullahs*.

We took a blanket each and rations and nothing else and slept out in the open near water.

We camped on the second night in an old Jarawa camp and left marks in the recent shooting camp we found that we had been there and took away the two pig skulls found there.

So far as ascertaining where the encampments of the Jarawas near Port Meadows and Jatang is concerned, the expedition has been a failure and as I failed to reach the West Coast I have been unable to locate their encampments between Port Campbell and Ike Bay.

The expedition has been useful in giving me an idea of what the interior of the island is like, which will be most useful in helping to determine the alignment of the path from Jatang to Ike Bay.

I accompanied Mr. Vaux back to the *Belle* on the 1st February, and went with him and Mr. Bonig and returned to Port Blair with them on the 4th instant.

I took photographs of the exterior and interior of the Jarawa hut, which have turned out well.

Diary of exploration into the interior of the South Andaman, west of Jatang, during the 30th and 31st January and 1st February 1902.

30th January, 1902.—Left camp at 7 A.M. Went north and north-west for 30 minutes and north with little west for 20 minutes first through the forest and then following a stream.

First halt for a few minutes at 8-10 A.M. Then followed a winding stream flowing generally north at 8-25 A.M., came across a pole which had been cut with a *dah* or axe and from which arrows had been made.

At 8-30 A.M. came across some foot-prints of Jarawas in small stream running west.

At 8-45 A.M. found a recent Jarawa encampment * on a ridge. There were eight fire-places in it. The charred ends of the wood and the ashes showed it had not long been vacated.

The Andamanese say there must have been a lot of people there, both men, women, and children.

Two fresh pigs' skulls were tied up to bamboos, some pieces of half-burnt leaves used for roasting the meat were found and also some cups made of leaves and bamboo water vessels.

The fires were arranged more or less in a circle, and some bunches of leaf sticks said to be used for dancing were also found.

All the wood was collected and placed in a heap in the centre of the camp and two or three bamboos cut and placed over the heap to show that we had been there. There were no shelters put up.

At 8-50 A.M., a little further on, we came upon an old camp which showed no signs of having been used recently. Some decayed shelters and two decayed fishing baskets were found, but nothing else. The Andamanese then followed up the trail for a short distance and then lost it. They had absolutely lost all traces of the Jarawas at 9-30 A.M.

We then followed a stream running north till 10-10 A.M. and the Andamanese then took us up a hill to the east, where they said they thought the permanent camp of the Jarawas would be found. We reached the top of the ridge at 10-40 A.M. It is probably a spur from Jatang Hill, but we found no trace of any Jarawas.

From 10-40 to 11 A.M., we went north and west on the flank of the spur and halted from 11 to 11-15 A.M. We then followed up a stream flowing south till we came to the water parting of it and a stream flowing north.

30th January, 1902.—As the Andamanese were wandering about aimlessly I then took them in hand and directed the line of march to the west along a spur running east and west, and at 12-20 we reached a large stream flowing south where we halted till 2 P.M.

We then proceeded due west and crossed another ridge, reaching another stream flowing north and south at 2-40 P.M. At 2-55 P.M. we reached a small stream (going west the whole time) running south-east, which soon fell into a large stream with lots of water in it flowing north and south. We left this stream at 3 P.M., and reached (going west) the top of a steep hill at 3-25 P.M., and saw a high ridge running apparently north-west and south-east to *the east* of us. We halted here till 3-30 P.M., and then again went west down a steep slope and then along a stream till 4 P.M. We then went south along this stream for a short distance. In the stream we found a dry cane which was lying in the stream and had been cut with some cutting instrument and soon met a large winding stream flowing west where we pitched our camp at 4-10 P.M. The stream had large fish, 8 to 10 inches long, in it, and the water was perfectly fresh and nice.

31st January, 1902.—The camp was undisturbed at night. We left camp at 7-30 A.M., and went up a steep spur going west with a little south in it.

At 7-50 A.M., going west with a little south we crossed another stream flowing south with water in it, till 8-5 A.M., we went up steep up-hill and then halted for 10 minutes to let the baggage coolies catch us up; at 8-30 A.M. we reached the top of the hill. An Andamanese here climbed a tree and said that he could not see the sea, but that there was another high ridge to be crossed to the west and another high peak to the south-west from which he thought we should get a good view, and he wanted to go to the peak to the south-west and not that to the west. This I consented to and started again at 8-40 A.M., going south-west and reached another hill at 8-15 A.M. From this the peak was said to be visible, so we went on down the flank of the hill. I observed the Andamanese and found that they were not going south-west, but had turned to the west and then again to the north and were going up the hill we had just come down! Only on a different spur of it.

This proved to me conclusively the futility of allowing the Andamanese to guide our movements, so I stopped them about 9-15 A.M., and we had a talk. They then confessed that they knew nothing about finding their way in the forest and had (so they said) never had to find their way in one. I asked them if they could take me back to Jatang and they said no, they could not do so. So after some consideration I came to the conclusion that it was not wise to go further west and that I had better try and guide the party back to Jatang. For if we went further west and I was not right in my directions we might not get back to Jatang before our provisions gave out.

At 10-20 A.M., started due east towards Jatang, reached the top of a ridge at 10-40 A.M., and going due east came to a large stream flowing south at 12 noon, stayed

* The Jarawas probably slept here on the night of the 10th January, previous to their raid on the 11th at Jatang.

there till 1-30 P.M. At 2 P.M., going still due east we reached the top of the next ridge. Halted 15 minutes, reached the top of the next ridge at 2-50 P.M., having crossed another valley. Halted till 3-10 P.M. An Andamanese climbing a tree said he could see the survey station (a hill cleared of jungle with a post on it) and also Kyd Island which he recognised by a large gurjan tree, we went still due east and came to a stream with water in it at 3-25 P.M., and crossed it. An Andamanese went up it and said he had found an old Jarawa camp a little way up it. Went to see it and found the remains of two huts. It had not been used for a long while. As we had had a tiring day, decided to spend the night in the camp and to return to Jatang the next morning.

1st February 1902.—Left camp at 7-20 A.M., going due east reached a stream flowing north at 7-40 A.M., and still going west another large stream flowing east at 7-45 A.M.; this soon bent to the north, so we left it and continued going east. This stream had lots of water in it and an Andamanese speared a fresh water fish about 10 inches long in it: followed along the stream for 100 yards and left it at 8-10 A.M., reached the top of another ridge, from which an Andamanese from the top of a tree could see Kyd Island, but not the sea.

At 8-25 A.M., going a little to the east of south we reached the top of a ridge from which the top of Jatang Hill (Survey Station) could be seen.

At 9-5 A.M., going a little to the east of south reached the next ridge and halted there for 5 minutes, and at 9-30 A.M. we reached a stream which the Police had visited the second day that they went out by themselves. Picked up the Elephant tracks at 10-30 A.M., and reached Jatang camp at 11-25 A.M.

Diary, dated 5th February 1902, of Mr. M. Bonig, Assistant Harbour Master, Port Blair, from 25th January to 4th February 1902.

25th January.—Left Port Blair in the steam launch *Belle* at 6-30 P.M., with Mr. Vaux, also 1 Naik, 6 Police, 15 Andamanese, and 3 convict servants.

Arrived at Macpherson Strait at 9 P.M. and anchored there for the night.

26th January.—Left Macpherson Strait at 9 A.M., arrived at Port Mouat at 11 A.M., left Port Mouat at 1-35 P.M., and proceeded to Constance Bay and anchored off a place, called by the Andamanese Koyab-lar-tenga, at 2-30 P.M. Took an Andamanese canoe in tow from here.

27th January.—Left Constance Bay at 7-30 A.M., for Port Campbell and arrived at the latter place at 11 A.M. Went ashore with Mr. Vaux, first at Montgomery Island and then on the mainland to search for new traces of Jarawas.

Found an old Jarawa bow, a basket and a bamboo drinking cup in the jungle, but no new tracks of Jarawas were found; they do not appear to have frequented this place since the Census expedition in February, 1901.

The Andamanese shot 12 turtles in the evening in the shallow water between Montgomery Island and the mainland, which place seems to be a feeding ground for turtles.

28th January.—Left the ship at 7-30 A.M., with 9 Andamanese, 4 Police and 1 convict, crossed Chauga Juru between Clyde Island and the mainland and landed on the mainland opposite. Sent the Havildar of Police with 3 Constables and 3 Andamanese along a small creek into the jungle, to search for fresh tracks of Jarawas, with instructions to try and meet us about 4 miles further north. I went with the remainder of the Andamanese along the shore up to Gering-châpâ-jig and followed up the left bank, while I sent three Andamanese up the right bank with instructions to follow us as soon as they had found fresh tracks. We soon discovered that the Jarawas frequented the vicinity, there being foot-prints of Jarawas in the swamp. The foot-prints of Jarawas are easily distinguished from any other, as the Jarawas appear to walk in a crouching attitude with their toes turned inwards, most probably the result of having to live in the dense jungle of the Andamans, where upright walking would be impossible. We also observed that a large tree had been stripped by them of its bark for the purpose, as the Andamanese informed me, of making waist ornaments. After having searched in the jungle for another 4 miles to try and find our other party, we returned to the beach. The three other Andamanese had not yet arrived, so we forded the creek and followed them up and observed by the foot-prints, that they had followed a single Jarawa along the shore. We caught them up again after a little while and as it was getting late then, I decided to return on board. Going along the shore I saw the remains of a wreck: there were only left of it three anchors, some chains, part of the windlass and about 20 tons of cast iron kentledge; judging from the size of the anchors it must have been a 200 to 300 ton vessel. When I returned to the boat, I found that my other party had returned before noon without having seen anything, so I decided not to send them alone in future. Arrived on board at 6-30 P.M.

29th January.—Left Port Campbell for Bilep at day-break, arriving at the latter place at 7-30 A.M. Mr. Vaux and myself divided again into two parties, Mr. Vaux following up Gering-châpâ-jig, while I went up Bilep-jig. We rowed about a mile up the creek and went ashore leaving the boat by itself. We soon found the Jarawa tracks and followed them up through the jungle. We saw by the foot-prints that there were two men, one woman and a child in the vicinity. We followed these up and came on a temporary encampment, where they had been resting the night previous. It consisted of only a few leaves put on the ground to sleep on and a piece of wood as a head-rest, they having selected

for this camp a promotory on the bank of a small water-fall, where it would have been extremely difficult to have taken them by surprise. After having followed the foot-prints a few miles further south, we came on the footsteps of Mr. Vaux's party, which the Jarawas had followed to the beach, so we followed these as fast as we possibly could. When we came near the launch the crew shouted out to us that ten Jarawas were sitting under a certain tree on the beach, so we advanced cautiously, keeping a good distance from the edge of the jungle. I left the Police behind a little so as not to frighten the Jarawas by our large numbers, but we found to our great disappointment that the Jarawas had left the place and followed up the creek again; coming on our boat, they had taken away from it two rowlocks and a bucket, having left the two other rowlocks with the remainder of the gear undisturbed. They had then followed our tracks into the jungle again. As it was getting dark now, it was of no use following them any further, so we returned in our boat to the ship. I may say that the number of Jarawas who passed the ship had been greatly exaggerated by the crew, as we saw by the foot-prints, there had only been the three adults and one child that we had followed the whole day. Mr. Vaux returned on board at 9-30 P.M.

30th January.—We went on shore in the early morning and remained on the beach, thinking that the Jarawas would either return to the beach or else leave this place altogether. But as the Jarawas did not come out, we returned on board and left Bilep for Kaichwa-log, while Mr. Vaux went with his party along the beach. Arrived at Kaichwa-log at about 4-30 P.M. and anchored inside the small harbour there at about 4-30 P.M.

This is a very good anchorage in any wind, except when it is blowing from the west. Deepest water is found near the north shore of the entrance. Went on shore again with the Andamanese and searched the jungle in the neighbourhood, but no traces of Jarawas were seen. We returned on board at 6-30 P.M., Mr. Vaux having arrived an hour previously.

31st January.—Left Kaichwa-log at 6 A.M. and arrived at Port Anson at 9 A.M. Took two other Andamanese on board here and steamed down to Dum-la-chorag, where we anchored at 10 A.M. Went ashore and passed through about four miles of mangrove swamp. We then separated in two parties again and after our having crossed a short distance of jungle, we came on a large Jarawa path. Having followed it a little way up, we were caught up by Mr. Vaux's party. This path led us on to a large hut of which I am forwarding a sketch herewith, which was rough copied from an original sketch taken by Mr. Needham on our second trip. This sketch, with its explicit description, together with the report most probably given by Mr. Vaux, will make it unnecessary for me to give any further particulars. After having unsuccessfully searched the jungle for another mile or so, Mr. Vaux decided that we should take a few of the Jarawa objects of interest out of their hut and return with the launch to Port Blair.

1st February.—Left Dum-la-chorag at daybreak and arrived at Port Blair, about 10-30 A.M.

2nd February.—Left Port Blair at 7-50 A.M. for Kyd Island and arrived at the latter place at 10-10 A.M., rowed up Jatang creek with Mr. Vaux and party, and landed at the Forest Department depôt, where we picked up Mr. Rogers, and then returned to Kyd Island.

3rd February.—Left Kyd Island at 6 A.M. and arrived at Dum-la-chorag at 8-40 A.M. Went ashore with Mr. Vaux and party to the Jarawa camp. We took away from it as many pigs' skulls, baskets, etc., as we could carry. The Jarawas who had been there the day previous had taken away all the wooden buckets we had seen there on Friday, of which a specimen had been taken away by us. We returned on board and left Dum-la-chorag at 4-35 P.M. for Lekerâ-luntâ where we anchored at 5-30 P.M.

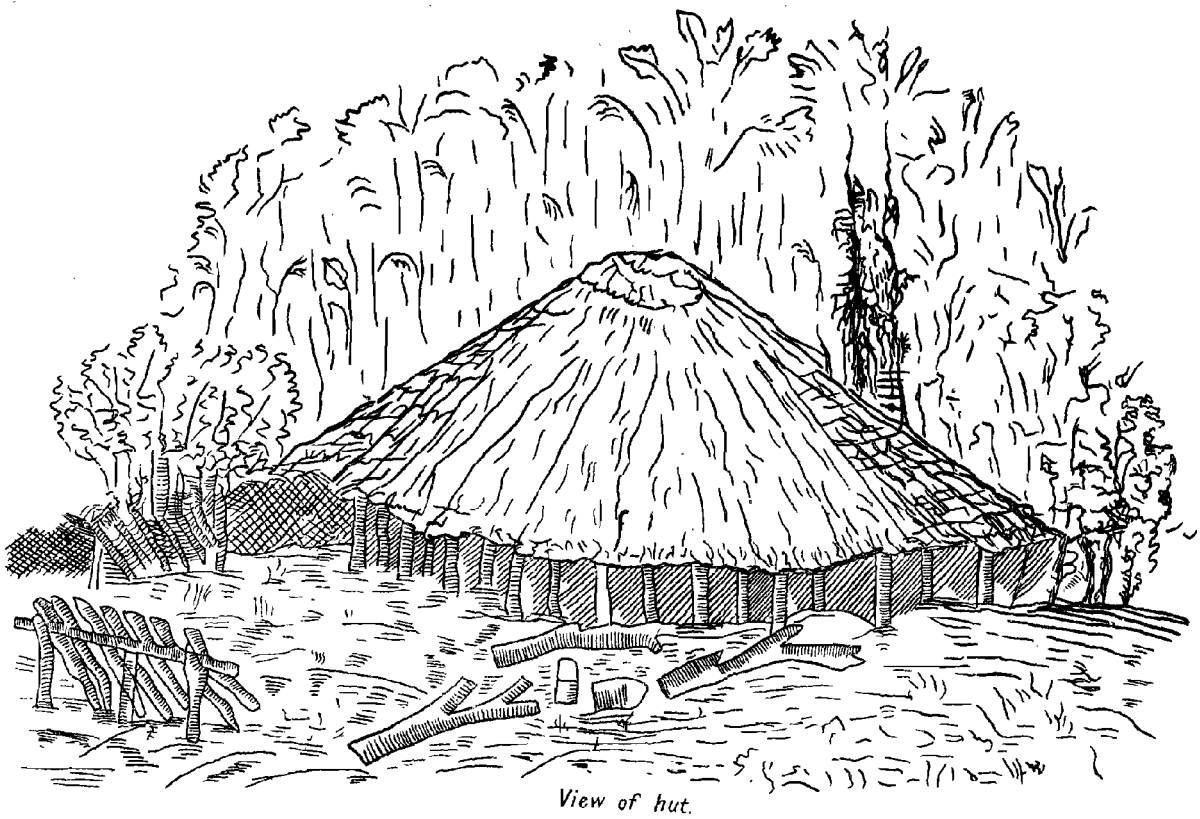
4th February.—Left Lekerâ-luntâ at 11-40 A.M., and arrived Port Blair at 4-30 P.M.

Second Reconnaissance.

Extract from the Diary of the late Mr. P. Vaux, Port Officer, Port Blair, from 17th to 23rd February 1902.

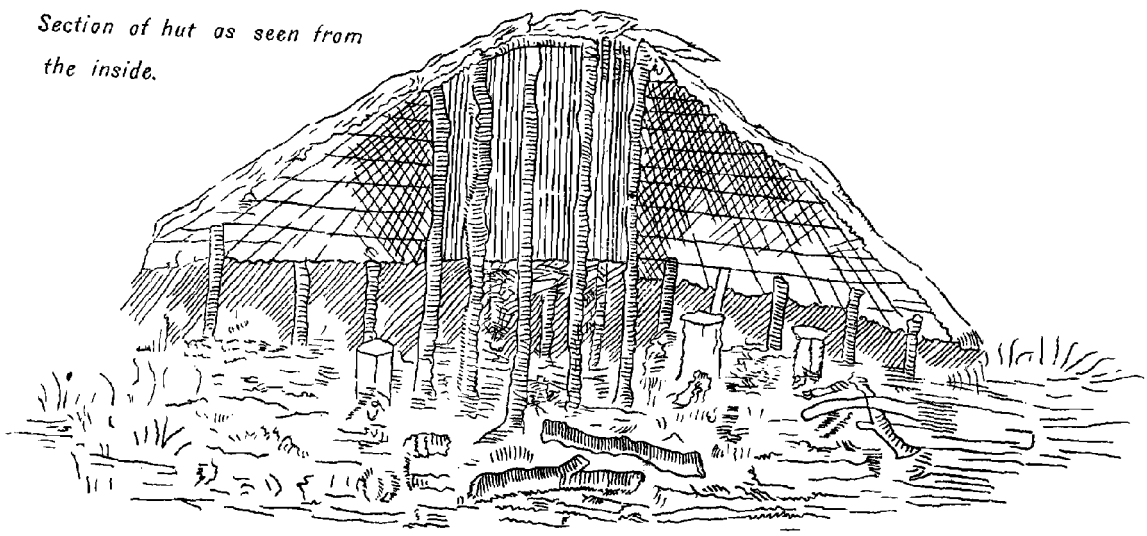
17th February.—Left Port Blair 5 P.M. arriving at Macpherson's Straits at 8 P.M.; anchored for the night.

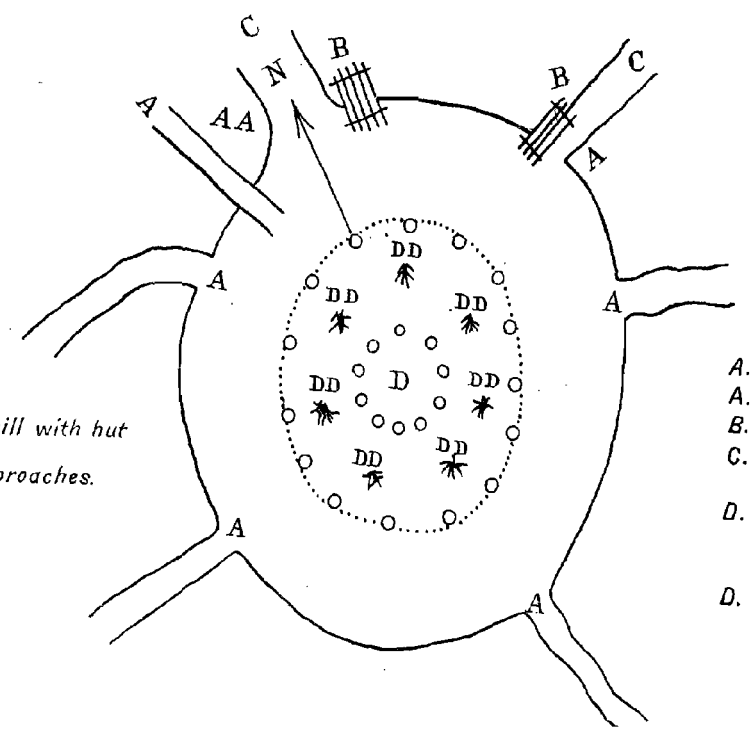
18th February.—Left Macpherson's Straits at daybreak, arriving at Baja-lunta at 10 A.M. Left at 10-30 with Mr. Rogers. It was a long pull and by the time we had landed and separated it was past 11. Beat about the swamp for some time for footsteps and while doing so came on Mr. Rogers. Left him at once, going south myself, while he went north. We soon came on tracks and these we followed for the remainder of the day. We soon discovered that the party of Jarawas was only just in front of us. So close were we to them, that at one place where they had sat down to take their food, we found a live fish that they had caught in the creek. We were following up a small stream and our direction was nearly due east. We slacked off somewhat as our intention was to come up with them in the evening. At about 2 P.M. we heard them cutting down branches and afterwards came to the boughs of trees that had been cut down for the insects inside them. The Andamanese said the party would be sure to camp in the evening and that then was our time. They were proceeding quite slowly, and we did the same occasionally losing



View of hut.

Section of hut as seen from the inside.





Plan of top of hill with hut and approaches.

A. A. Main approach.
A. Pathway.
B. Look out posts.
C. Jungle clearing in front of look out post.
D. Main fire place above which hung about 300 Pig skuls.
D. D. Small fire places.

their steps, but never for long. About 4 P.M., we heard them commence to cut down trees for their camp, and we could distinctly hear the voices of men, women and children. It took them about an hour to prepare their huts, and then they settled down and every sound nearly was audible. With the utmost caution we got to within a few hundred yards of them, and there waited, deciding, as it was moonlight, in fact full moon, that we would rush their camp at night. It was most weary work waiting, and very cold and miserable, as we were all wet through. About 7-30 all sounds ceased, and at 8 o'clock the three best Andamanese crept away to discover where their camp was. It seemed an eternity before their return, which, as a matter of fact, was just an hour. They reported that they had found the huts and that all the Jarawas were sound asleep. We then all advanced, in nearly absolute silence at about the pace of a yard a minute. It must have been half past ten, when in the flickering moonlight we discerned their huts. I got separated from the Andamanese, who went to the back of the huts, while I and the Police went to flank. The camp was in absolute sleep. A baby cried and was hushed to sleep, while we were within 20 yards of the camp. As we stole along through the jungle, dead twigs broke and cracked and their noise at last awakened the sleepers; there were voices, exclamations, then figures could be seen emerging from the huts. A shot was fired from a rifle, then others, and all was confusion. I rushed into the middle and pulled at the post of one of the houses. I then saw a figure escaping into the jungle and I seized hold of it. This I believe to have been a woman. She escaped owing to the stupidity of a policeman. I called to one of the sepoys to seize her, and ran back again to order the firing to cease. The policeman let her go and she escaped. I believe her to be a woman, as she was smeared with white and as she did not attack me or bite, but only struggled to get loose. I had dragged her out of the jungle to the edge of the fire and all that the policeman had to do was to hold her, but even this he did not do. Two children, a girl, aged about seven, and a baby ten months or so, were seized by my direction close by. When the confusion had subsided, I made the Police and Andamanese make large fires around the camp and we collected the bows and arrows of the Jarawas and sat round the fires. I ordered a shot to be fired every quarter of an hour to scare them away in case they should return. The camp was of three huts, a mere shelter in the middle of the jungle. It was occupied by two families and two lads who did not belong to them, *i.e.*, two full grown men, two boys, two women and four children. What must have happened is that the Andamanese got close up to the huts and then the inmates awoke. They said they shot one of the men, putting two arrows into him, a large one under the arm and another fish arrow through his thigh. Then the boys and women ran out and the Police fired and then all was confusion. I had expected when the sounds of our coming had aroused the Jarawas, that they would have run out in front and fired at myself and the Police, who were plainly visible, but they were caught so sound asleep that they could do nothing and only thought of escaping. We passed a most miserable night crouched round the fires, with a shot being fired every fifteen minutes or so. None of us had had anything to eat since seven o'clock in the morning, but fish and pigs' flesh and potatoes were found in the huts and the Andamanese had a little, while I and the Police had a few *chupatis*. Sleep of course was impossible for me and the Police, and we shivered over the fires from eleven in the night till daybreak. When it was light enough I and the Andamanese followed up the blood stains, and found the two arrows covered with blood that the Andamanese had shot into one of the Jarawas, and which the man had succeeded in pulling out. We lost the blood stains very soon and then there was nothing to be done but to return. So we set off for the coast taking the two children with us, and came out about 9. We then had a two-mile walk through the sea and mangrove swamp getting back at 10 o'clock. Mr. Rogers pulled off with the boat when he heard us fire a shot. Mr. Bonig had gone south and returned in the evening, having found no signs of anything.

20th February.—Learning from the Andamanese that there was a woman giving milk at Port Anson, we changed all previous arrangements and proceeded to Port Anson, as it was very necessary to give the Jarawa baby some milk. Left at 7-30 and arrived at 1. To my great disappointment the woman was absent in the jungle. We tried feeding the child with milk, but we could hardly force any down its throat. So after waiting until the night for the woman to return and finding she did not, I decided to send the launch back to Port Blair in the morning with both the children and Mr. Bonig, and to camp at Pochang, the site of the chief Jarawa camp, till the morning with Mr. Rogers.

21st February.—Left Port Anson at daybreak and anchored at Dum-la-chorag at 7-30 A.M. Mr. Rogers and myself, a dozen Andamanese and 12 policemen landed, Mr. Bonig with the remaining Andamanese, the 2 Jarawa children and 5 Police returning to Port Blair. It took two trips of the Andamanese boat to land all and as every one was taking a week's rations we were all heavily loaded. The tide was exceptionally high and we had a very hard time, struggling through the mangrove swamp with our heavy loads deep in water. It took us nearly four hours to do this and about an hour to finish the march up to Pochang, where all arrived, very glad to lay down their loads. We pitched camp on the ridge of the big Jarawa house. Cleared a spot and all camped. The men rigged up a shelter of saplings and leaves for Mr. Rogers and self and the others camped round. There was a stream of water at the bottom of the hill, so for the remainder of the day we made ourselves as comfortable as we could under the circumstances.

22nd February.—Started out at 7-30 A.M. with a party of 6 Andamanese and one policeman. Wandered through creeks and over precipitous hills and through dense

jungle all day long: found absolutely nothing but very old tracks; could not get on to any big path, and eventually, after walking many miles, got on to the main *khari* from Port Anson and walked up to our camp. Mr. Rogers arrived half an hour later. Mr. Bonig had arrived at 10 A.M. from Port Blair and left a note to say that he had gone off hunting. He did not return that night. Mr. Rogers reported having discovered the main track south and a big encampment.

23rd February.—Waited until about 9-30 A.M. for Mr. Bonig, when, as it seemed doubtful whether he would turn up until evening, Mr. Rogers and self decided to move camp to the big hunting camp discovered by him. We accordingly packed up, and each shouldering a load as before, we set off and tramped about 6 miles along a Jarawa path to the hunting camp. The road lay due south and we only climbed a couple of hills, the rest of the way being along the slopes, and along a broad stream, some 20 yards broad, flowing due south; although only 6 miles or so off, we went so slowly, carrying our loads, that it was 2-30 or so before we arrived. The hunting camp was similar in construction to several I found, consisting of six huts facing a well cleared open space. It was on a hill top and had several paths running up to it. Water was close by Gorlakabang.

[*Note.*—Mr. Vaux was killed on the 24th.]

Extract from the Diary of Mr. C. G. Rogers, Deputy Conservator of Forests, from the 17th to 26th February 1902.

17th February.—Left Port Blair in the *Belle* about 5 P.M. and reached Macpherson's Straits soon after sunset and anchored there for the night.

18th February—Left Macpherson's Straits at daybreak and steamed up the West Coast of the island and through the Labyrinth Islands to the place called Tálaplongta on the Andamans Topographical Survey Map (2 miles=1 inch). Mr. Bonig found a passage through the coral reefs and anchored about a quarter mile from the shore and the estuary of the stream which enters the sea here. The Andamanese call it Bajaluntâ. We landed with Andamanese to look for Jarawa tracks, camps and houses. Mr. Bonig went to the bay to the north. Mr. Vaux and self went up the estuary and landed at 11-15 A.M. He went to the south and I continued up the *khari*, and at 11-40 the Andamanese with me came across some fresh Jarawa tracks. We followed these up, and at 11-50 Mr. Vaux and his party caught us up, as the tracks they had found led them to the *khari* up which I had gone.

Each of us (Mr. Vaux, Mr. Bonig and self) had four or more Andamanese and three policemen, leaving three policemen on the launch.

Sharks were plentiful where we landed and the Andamanese shot two, one of which was killed, the other going off with two arrows in it. The one killed was about 3 feet long.

Where Mr. Vaux had caught me up, the *khari* branched. Mr. Vaux followed up the more southerly of the two streams and I went up the northerly one.

The *khari* I followed went generally north. We crossed a ridge running north and south and came into another branch of the *khari* and followed it up. On another ridge, which we reached at 12-10 (noon), was the site of an old hunting camp, which had not been recently used.

At half past twelve we left the *khari* and went through the forest on the eastern and southern flanks of the intersected point marked 677 (height in feet) on the map above referred to. We did not find any new tracks of Jarawas until about 1 P.M., when we found some new tracks, including those of two young children, and following up these tracks came upon a fresh hunting camp, which had quite recently been left, as the fires were still burning. Flies were thick on the pieces of fish which had been thrown away and some cooked fish (whole) were found in the shelters in which the Jarawas had slept, and this was eaten by our Andamanese. The pigs' skulls were found and taken away. We followed up the fresh tracks from this camp and they took us back to the *khari*, at the point where Mr. Vaux and myself had separated in the morning.

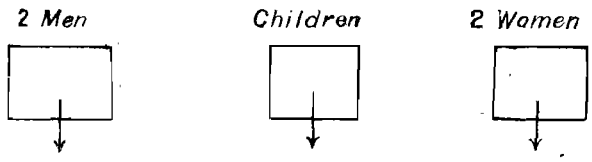
As it was late and I was very tired, not being very well, we returned to the boat, which we reached at 5-30 P.M. and waited till midnight for Mr. Vaux, who did not turn up. About 7 P.M. we heard the report of a gun, and thinking that perhaps Mr. Vaux had been benighted and was trying to find his way back to the boat, fired a shot in return and waited. About 9 P.M. we heard another shot, which we thought was nearer, so replied to it. The next shot we heard, about an hour afterwards, seemed to be further off, so after waiting till midnight, I decided to go off to the launch and return to the landing place at daylight. Reached launch at 1 A.M.

At that time I never dreamt of Mr. Vaux's having found any Jarawas. I only thought he had been following up fresh tracks and had gone too far to return to the ship that night.

About 8 P.M., while waiting for Mr. Vaux, we heard shouts to the north of us. The Andamanese suggested that the sounds were those of Jarawas. I said I thought it was Mr. Bonig's party returning home, and on my return to the launch, I found Mr. Bonig there, and he told me that they had had to wade a good deal of the way home and had to shout to keep off sharks. He was up to his neck in the water and more than once was attacked by large sharks. The Andamanese would not come into the water and Mr. Bonig had to send for them after he had reached the launch. The tide was out when we landed. It was full when we returned, and so Mr. Bonig's boat was some way from the shore on his return. The Andamanese called the place we anchored at Bajalunta.

Some poles at the camp we found had been cut with some cutting instrument, while a tree in the camp was hacked with what looked like (judging from the incisions made) an adze.

The camp consisted of three huts arranged thus: —



Arrows show entrance into huts.

The Andamanese said the camp had been occupied by two grown up men, two women and some children. The huts or shelters were about 5 feet long and 4 broad, and 4 feet high. They are made of a framework of sticks, some poles being bent down also and tied; leaves of a large palm cut with long stalks stuck into the ground, formed the back and roof of the huts. There were remains of fires inside the huts and in front of them and a considerable amount of white wood ash.

19th February.— Started at 6 A.M. and returned to the place we had landed to wait for Mr. Vaux. Mr. Bonig was asleep when I left. I left a message for him to say that I would be back at 9 A.M. He came to me about 7-30 A.M. and I asked him to go down the coast and see if Mr. Vaux had got out on to the coast and if so to bring him back, and asked him to be back on the launch by nightfall. I told him that if Mr. Vaux did not return by 9 A.M., I should go back to the launch, have some food and start off to follow Mr. Vaux's tracks and see what had happened to him.

Mr. Vaux did not return to our landing place, so I went back to the launch and had some breakfast, while the Andamanese had their food and made preparations to follow Mr. Vaux's tracks and to stay out a night in the forest, if necessary; as I had told Mr. Bonig I would do this and that he was not to be anxious about me, as I should return without fail the day after. Got ready food for Andamanese and Mr. Vaux.

While at breakfast I heard the report of a gun and saw Mr. Vaux and party on the shore at the mouth of the estuary of the creek we had gone up. Put off at once to fetch him and found that he had come across the Jarawa party, whose camp we had found. He had attacked the camp at night and taken two children prisoners. One child was a girl four or five years old, and the other a baby boy of about nine months. Mr. Vaux had camped on the site of the Jarawa camp and had shots fired at intervals to keep off the Jarawas, but was not attacked. The two men in it were said to have been wounded by the Andamanese who were with Mr. Vaux. The Andamanese shot at the men in the camp, while Mr. Vaux rushed into it. The Andamanese say there were two men, two women and two large boys and some small children.

We waited for Mr. Bonig, who returned about 6-30 P.M. He had seen a party on the shore on his way down the coast and thought it was mine; so went on and then landed and struck into the interior, but found no new traces of Jarawas, and so returned to the shore and came back to the launch soon after sunset.

20th February.—The capture of the girl and baby boy upset all our plans, as it was necessary to take the baby somewhere, where it could be fed. The Andamanese said there was a woman with a baby at Lekeralunta, (Port Anson), so we decided to take the baby there and return to Port Campbell or Bilap (see Mr. Vaux's report of his first reconnaissance) and continue our search for Jarawa houses.

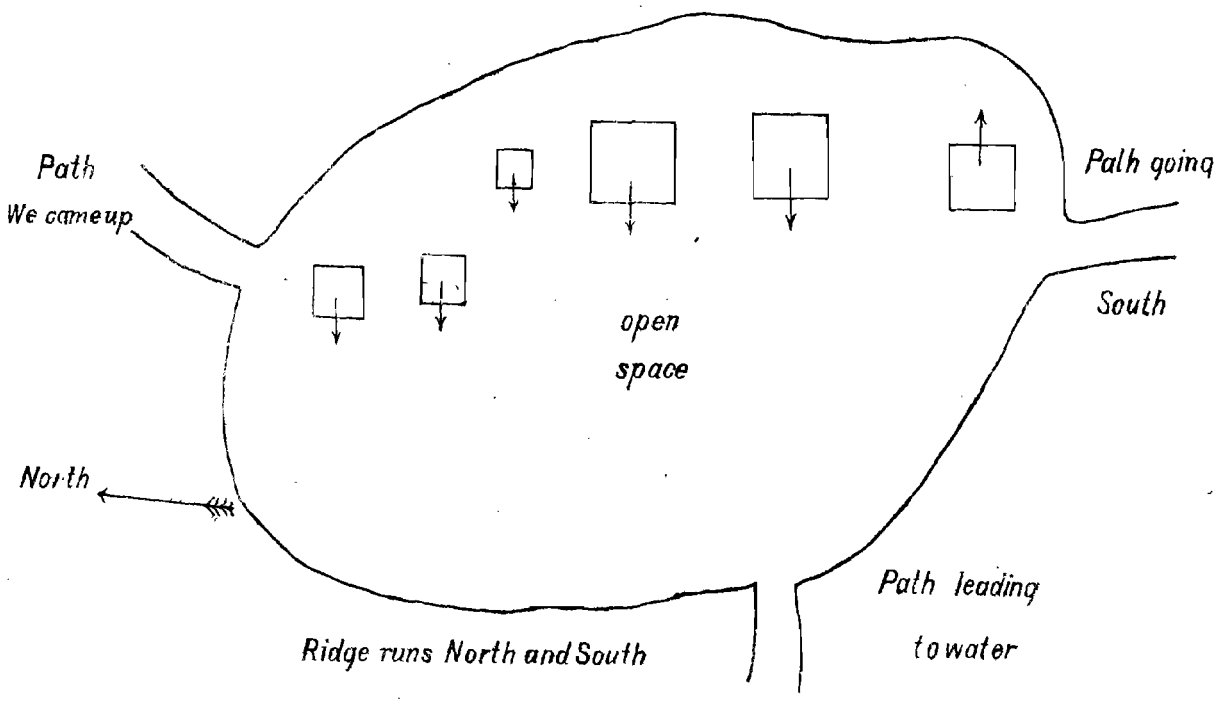
Left Bajalunta at 7-30 A. M., and arrived at Lekeralunta at 1 P.M. The Andamanese woman was out on a hunting trip, and as she was expected back in the evening we waited for her.

21st February.—As the Andamanese woman with a child did not come back, Mr. Vaux decided that Mr. Bonig should take the two Jarawa children to Port Blair, while myself and Mr. Vaux went to the large Jarawa hut at Pochang and looked for the main track south, and that Mr. Bonig was to join us the next morning at Pochang.

Weighed anchor at 6-30 A.M. Reached Dum-la-chorag at 7-30 A.M., disembarked and sent the boat back to launch. Mr. Vaux, self, servants, 8 policemen and 13 Andamanese landed, while 4 policemen and 4 Andamanese went with Mr. Bonig to Port Blair. The tide was up, so we had considerable difficulty in getting up the estuary to Pochang, the site of the large Jarawa hut, which we had discovered on the first expedition. We reached Pochang about 1 P.M. and pitched camp a little beyond and above the site of the large Jarawa hut.

22nd February.—Mr. Vaux and self, each accompanied by one policeman and four Andamanese, started off in different directions to look for the main track of the Jarawas from their large hut. We left camp at 7-30 A.M. I followed the stream, from which we got our drinking water, (it flowed a little east of south for half an hour), and then climbed up the ridge, which we could see south from the camp running in a generally north and south direction. At 10 minutes past 9 we picked up some old Jarawa tracks in the bed of stream and at 9-40 reached a very old disused hunting camp on a ridge to the south of the stream, which there bent to the West. We then crossed the ridge and went south-east, and at 10 o'clock reached another stream flowing south, which we followed, and at 10-10 A.M. reached a salt water stream, which flows to the east of south and probably flows into the Middle Straits. Where we met it, it was about 40 feet wide. This is probably Pap-lūnta Jig.

We turned back from this and went west and turned south at 10-35 A.M., following down a stream which flowed into the same salt water *khari*, which was here 50 feet wide. We reached the *khari* the second time at 10-45 A.M. and swam across it. My watch got under water and stopped and my revolver also got wet. We crossed a ridge to the west of the *khari*, and came into a fresh water stream flowing south which we followed, and soon picked up a well defined track going along the flank of a low ridge with gentle slope going south. We followed along this for about 1½ miles and came on to a large hunting camp with six huts, which had been recently occupied. The huts were arranged as shown below. The arrows show the entrance into the huts.



The Andamanese were satisfied that this was a hunting camp on the Jarawa path going south and that we should find another large hut, if we continued to march south along the track.

Decided to return to Pochang as it was about 3 o'clock and consult with Mr. Vaux and find out what he had found. Followed the track, which was most distinct the whole way right back to the Jarawa camp at Pochang. Found Mr. Vaux in camp. Mr. Bonig had come and had gone out to look for tracks. Mr. Vaux had not come upon any tracks and we decided to move camp the next day to the camp I had found. Mr. Bonig did not come back this night.

23rd February.—Waited some time for Mr. Bonig, and as he did not return, left a message for him to say where we had gone and moved our camp to the Jarawa hunting camp that my party had found the day before. Followed along the Jarawa track and reached the camp about 2 P.M. Blazed trees along the track to show Mr. Bonig where we had gone.

When we were about one mile from the camp an Andamanese (Daniel) caught us up. He had been sent by Mr. Bonig to tell us that he was going back to Pochang, as he thought we were looking for him. Daniel told us that Mr. Bonig had fever and was going back to the launch. About half an hour before nightfall, however, Mr. Bonig arrived. He had felt better when he reached Pochang, so came on and joined us instead of returning to the launch as he had first intended to do.

We came part of the way another route to the Jarawa camp and passed through another camp, which Mr. Bonig had seen yesterday and also found his footprints, so knew that he had come the way we had yesterday. He must have followed the track which led to the camp I found for a long way, and eventually gone off to some other track, where they had found fresh Jarawa tracks; which shows how extremely difficult it is to follow a Jarawa track, even when you have found it. The Andamanese called this camp Gorlakabang.

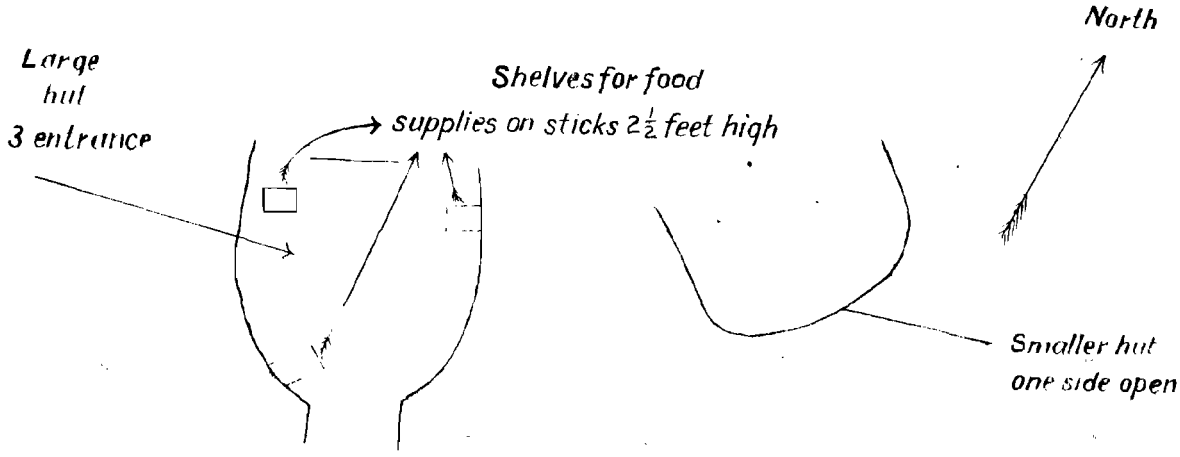
24th February.—Left camp about 7-30 A.M. Our party consisted of :—

Mr. Vaux.
Mr. Rogers.
Mr. Bonig.
16 Andamanese.

(1) Henry.	(9) Jack.
(2) Golot.	(10) Thomas.
(3) Magri.	(11) Aré.
(4) Daniel.	(12) Dora.
(5) Bobby.	(13) Barat.
(6) Beala.	(14) David.
(7) Mathew.	(15) Beaboi.
(8) Wuloga.	(16) Iragud.

One policeman.
My *mallah* Sher Khan.
Mr. Bonig's servant.
Mr. Vaux's servant.

We first went south with little east in it along a stream, which we then followed up to its source and along a ridge and up a slope to the top of a rounded hill with gentle slopes, the highest hill about. The top of the hill was a bamboo forest. Found a rains hunting camp perched on the summit of the hill of two huts, one of which was much larger than the cold weather hunting camps. The huts were arranged as shown below and were under the shade of bamboos.



We reached this camp about 9 A.M. The thatching leaves were quite dry, but the roofs were in good order and waterproof. There is no water anywhere near it in the cold weather.

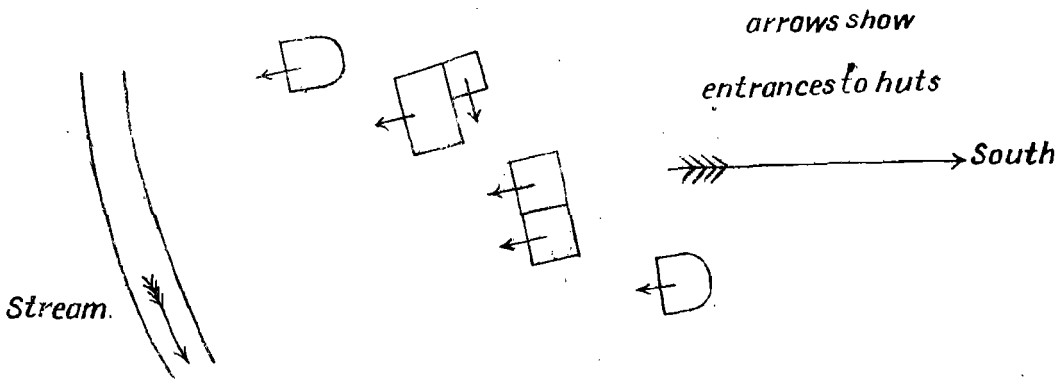
David (Andamanese) and two others had come on as far as this camp yesterday while reconnoitring for the path, so took us at a smart walk to it.

We then went down the flanks of this hill (shown as an intersected point on the survey map) and followed down a stream some way, and leaving it crossed a ridge and followed down another stream and came upon another hunting camp, which had been recently vacated : the Andamanese said probably about four days ago.

On our way to this camp we found some branches bent down in hoops and tied across the path. The Andamanese said this was done to stop the birds from telling us where the Jarawas had gone. In the camp two large stones were tied up with a piece of bark and left in the camp; we were told that this had been done for a similar reason.*

* This may account for the heavy stones which are found on the bodies of persons murdered by the Jarawas.

There were six huts in this camp arranged as shown below. The thatching leaves were still green.



We reached this camp about 10-30 A.M. and went on along the flank of the hill and then down a stream, both going generally south. About 11-30 A.M. we heard the sounds of an axe and also voices, which were Jarawas'. So we at once retired up the stream, while the Andamanese went down a little way to see where the camp was, or if it was a camp. They came back soon after to say there was a camp with six huts and probably eight men belonging to it. So we decided to wait till evening till the men had come home with their bows, arrows, and tools, and to rush the camp when the moon rose, and try and capture a woman to suckle the Jarawa baby Mr. Vaux had taken. It was of no use taking the camp till the men had returned, as they would have their bows, arrows, and tools with them.

We waited till the moon was almost visible and then started down the stream towards the camp. It was too dark, so we soon had to halt until we could see a little better. After two halts we came to a more open place, from which we thought we could see the red glow of the smouldering logs of the Jarawa fires and after a short halt crept on once more. Three Andamanese went first, then came Mr. Vaux holding the hand of an Andamanese, I held Mr. Vaux's hand, Mr. Bonig held mine, the Policeman held his ; and so on.

We crept down into a depression and then seeing dimly huts in front of us, Mr. Vaux sprang up and rushed forwards to the nearest hut. I followed, passed him and rushed into a hut to the left. The Andamanese behind us fired arrows into the huts, while we were rushing on them. One shot was fired. My *mallah*, Sher Khan, followed me. I caught sight of a figure trying to escape and found that I had secured a woman with a baby. My *mallah* secured another woman with a baby.

Soon after this Mr. Bonig came to me and said that Mr. Vaux was badly wounded and he thought was done for. As soon as I could see some one to whom I could make over the woman I had caught, I went to Mr. Vaux's help, as Mr. Bonig had come to me a second time. Meanwhile the sepoy and Mr. Vaux's Burman (a free man) were firing carbines. I did not use my revolver. When I came to Mr. Vaux I found him in a semi-unconscious state, and he died two minutes afterwards.

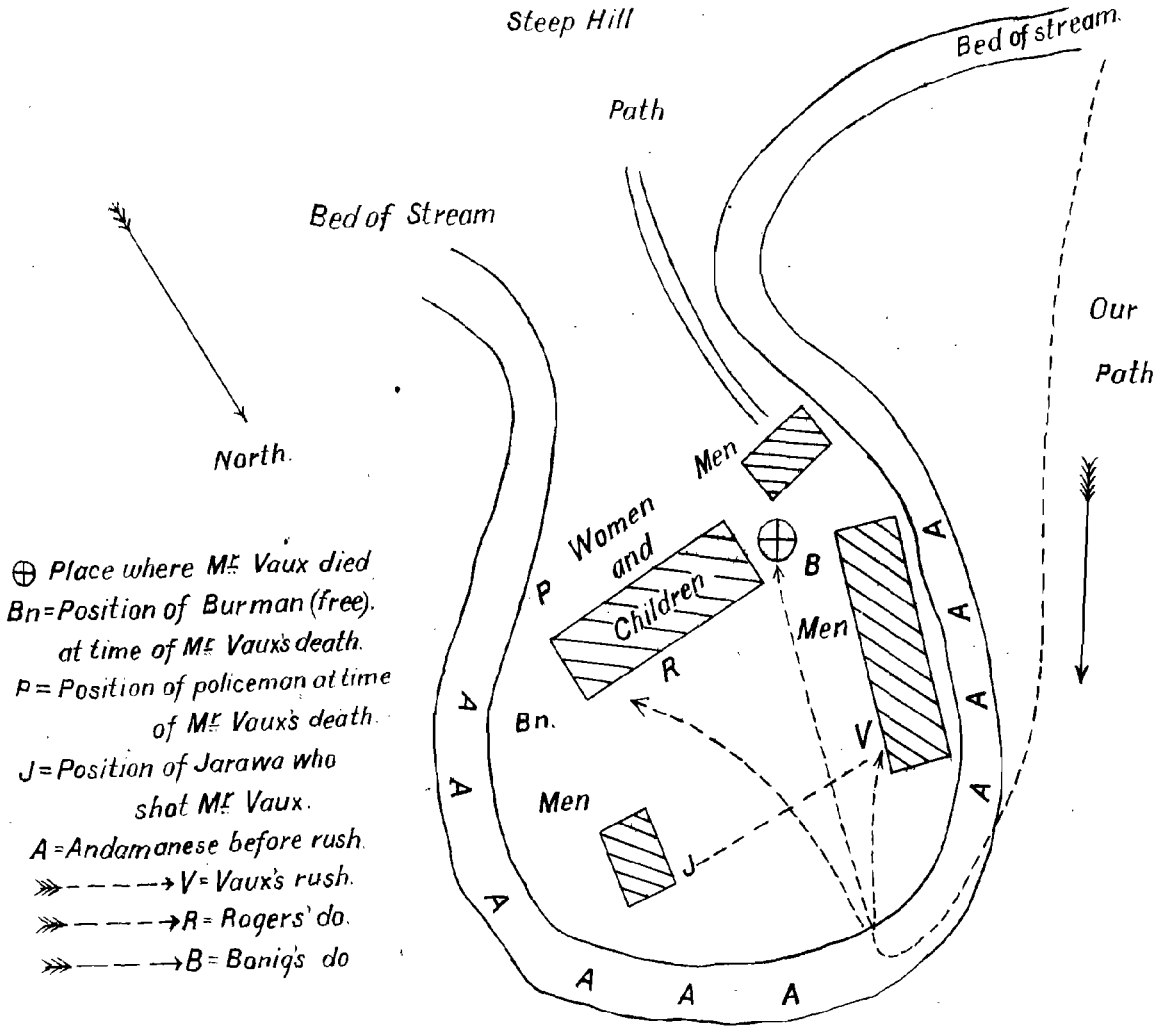
When Mr. Vaux had passed away, I stopped the indiscriminate firing of carbines which was going on, secured the prisoners, two women and six children, including two babies, and posted the sepoy on one flank of the camp, some Andamanese to look out all around the camp, and went to the other flank myself, while Mr. Bonig stayed midway between myself and the policeman. The moon was not very bright, so it was impossible to make a thorough search of the huts, nor to make our way back : so I decided to stay where I was till daylight appeared and then to search the camp thoroughly for tools and pots, etc., and if possible to get back to the steam-launch with Mr. Vaux's body. The police sentry stuck to his watch well all through the night.

Mr. Bonig, self, and sentry fired shots occasionally to show the Jarawas we were on the alert and to prevent a night attack. The Andamanese gradually all fell asleep and it was very hard to keep any of them awake, but Mr. Bonig, self, policeman, and my *mallah* kept watch the whole night through. We were not attacked and I was very thankful when the first rays of dawn became apparent.

25th and 26th February.—As soon as it was light enough I sent off two Andamanese to fetch six policemen to help to carry Mr. Vaux's body.

We then made a thorough search of the camp and found one axe of European manufacture, several Andamanese adzes, and two rude knives, probably made of dahs, and a number of honey-pots, etc., of which we took away as many as we could, as well as all the bows and arrows that we could find.

Daylight showed that the huts were arranged, as shown below, on a flat piece of land in the bend of the stream.



The stream had well defined steep banks from 3 to 6 feet high around the camp; where we entered it, the bank was about 4 feet high. No dead bodies of Jarawas were found in the camp, and we did not go down the stream to look for them.

As it was a very long way from the launch I had to push on as quickly as possible, so as to reach the launch before nightfall. The place where Mr. Vaux was killed is called Wibtang, and it had taken us three days to get from the launch to this spot. The Andamanese know the names of these places, as they once occupied this country and were driven out of it by the Jarawas, when they were pushed north by the expansion of the settlement.

Mr. Vaux's body was slung to a strong bamboo and hung down from it and the bamboo was carried by:—(1) the policeman, (2) my *mallah* Sher Khan, (3) Mr. Vaux's Burman, (4) Mr. Bonig's Burman, until the Police met us and after that it was carried by the Police to the coast.

The policemen behaved admirably. They met us about half mile to the south of the Rains Camp on the high hill (intersection point on survey map). We left the camp which we had rushed at daybreak and must have reached the camp where the policemen were left behind about 11 o'clock. The women and children came with us quite cheerfully and willingly and gave us no trouble.

We halted about quarter of an hour at Gorlakabang Camp, where we all had some food, while the things were packed up, and then pushed on to Pochang Camp, leaving behind us what rations we had not consumed, so as to lighten the loads to be carried as much as possible. About 4 miles from the Pochang Camp Mr. Bonig, who was in the front part of the line, told me that Andamanese Mathew had been shot in the arm by a Jarawa. Shortly before this some of the Andamanese with me told me that they thought they had heard some Jarawas going on ahead.

Mr. Bonig then led the line, while I stayed in the rear with two policemen and three Andamanese, and I put some more policemen in the middle, and after a temporary halt pushed on as fast as we could, keeping all close together and firing at intervals to keep off the Jarawas. I was not told how many Jarawas had been seen and what they had done, so was anxious until we had got right out to the estuary. We reached the estuary of Dum-la-chorag about 5-30 P.M.: so if we consider that we walked 1½ miles an hour, which I think we did, we must have covered about 17 miles of country.

The tide was out when we reached the sea coast, and as it was full tide when we had landed, we had considerable difficulty in pulling the boat to the water and getting off through about three-quarters of a mile of soft mud to get the boat afloat. I reached the launch at 7-30 P.M. Mr. Bonig at once started. Crossed the bar at the entrance of the Middle Straits and ran straight down to Port Blair.

Extract from the Diary of Mr. M. Bonig, Assistant Harbour Master, from the 17th to 26th February 1902.

17th February.—Left Port Blair 5 P.M., arriving at Macpherson's Strait at 8 P.M.; anchored for the night.

18th February.—Left Macpherson's Strait at daybreak for Bajalunta. Baja-lunta-log is the Andamanese name of the Bay, about 8 miles south of Port Campbell. It is named on the chart Talap-longta, which the Andamanese informed us to be incorrect. Anchored in this Bay at 10 A.M., and went ashore in the dinghy with six Andamanese, three Police and two Burmans. Landed on the north shore of the Bay, Messrs. Rogers and Vaux and party landing at the mouth of the creek at the head of the Bay.

We found new tracks of Jarawas almost as soon as we landed, and followed them up; the Andamanese also shot a pig which had been previously wounded by Jarawas. When it was getting late in the afternoon we lost the Jarawa tracks, so we cut through the jungle towards the sea-shore, and followed it. We then came upon a temporary Jarawa encampment, and from it we took away two bamboo water vessels which had been left behind. This is the only Jarawa encampment we found near the sea-shore, the others all being in the interior. As it was getting dark and the tide rising, we had a very difficult journey back to the ship; often going up to our necks through the sea. The place was infested with sharks, but we kept them off by shouting constantly. One of them, about 6 feet long, came straight for us and I only just managed to scare it away by jumping on it, touching it with my hands. The Andamanese refused to come any further with us and they camped, while I with the Police and Burmans went to the boat, which we reached at 10 P.M. Two Andamanese had found their way through the jungle to the boat, so with these I went on board and sent the boat back for the remainder. We heard the report of a gun shortly after we came on board. Mr. Rogers arrived with his party at about 12 P.M., Mr. Vaux remaining in the jungle for the night.

19th February.—Mr. Vaux not having arrived this morning, Mr. Rogers went ashore at daybreak, while I followed him about an hour later. After consulting with Mr. Rogers, who was waiting on the shore for Mr. Vaux, it was decided that I should go south a few miles along the shore and then go in the jungle. I accordingly went about 4 miles down the coast and searched the jungle the whole day. I did not find any new tracks of Jarawas, but a number of old encampments showed that they had frequented this part of the jungle six months ago. On my return to the launch about 7 P.M., I found both Messrs. Rogers and Vaux on board and I was informed that Mr. Vaux had captured two children (one girl and one baby) the night previous, which he had brought on board. Mr. Vaux therefore decided that we should start for Port Anson early the next morning to find an Andamanese woman to nurse the Jarawa baby, which would take no nourishment from us.

20th February.—Left Baja-lunta for Port Anson at 7-30 A.M., arriving at the latter place about noon. To our great disappointment we found that the Andamanese woman, who was to have nursed the baby was absent in the jungle. We waited for her the whole day. As she did not return, Mr. Vaux decided that I should take the Jarawa children to Port Blair early next morning, while he and Mr. Rogers would encamp at Pochang, the site of the Jarawa camp we had found on our previous trip.

21st February.—Left Lekeralunta at 5-30 A.M. for Dum-la-chorag where Messrs. Vaux, Rogers and party disembarked. I proceeded to Port Blair, arriving at the latter place about noon.

Delivered Mr. Vaux's letter to the Chief Commissioner, who ordered that the Jarawa baby was to be taken to the Haddo Home and the little girl was to remain at Government House with the Andamanese woman Topsy. As it was too late to return to Port Anson that afternoon, I decided to leave early next morning so as to arrive outside Middle Straits at daybreak.

22nd February.—Left Port Blair at 3 A.M., arrived at Port Anson at 7-30 A.M. Anchored the *Belle* at Dum-la-chorag.

Proceeded at once with one Police constable and four Andamanese ashore to Pochang. We had great difficulty in getting to the camp, as the mangrove swamp, which we had to cross, was completely under water. Arrived at the camp at about noon. I found that Messrs. Vaux and Rogers had both left in different directions to search for Jarawas. I therefore left the Chief Commissioner's letter for Mr. Vaux with the Police Havildar and went with my party of Police and Andamanese in another direction to search for Jarawas. We soon came across a Jarawa encampment consisting of four huts. We followed the path which led from it further south. Having followed this about 4 miles, we found fresh tracks of eight Jarawas. We followed these till the evening, and as it was too late to go back to the camp, we remained for the night in the jungle.

23rd February.—Returned to the camp at Pochang. On our way the Andamanese informed me that they could see by the foot-marks that both Messrs. Vaux and Rogers had

gone further south, most likely to search for our party; so I sent two Andamanese to follow them and to inform them of my return to Pochang. On our arrival there at 2 P.M. I found a note from Mr. Vaux tied to a tree, saying that they had proceeded to another camp, 6 miles further south, and that I was to follow them there, or else to return on board. I followed them and reached the camp at about 5-30 P.M.

24th February.—Left camp at 7-30 A.M. with Messrs. Vaux and Rogers, one policeman, three convict servants and sixteen Andamanese. We followed up the Jarawa track and came on an encampment about 9 o'clock. We proceeded on our way and came on another encampment an hour later. As the Jarawas had apparently only recently left this, we did not disturb it, for fear of disclosing our whereabouts to the Jarawas, should they be in the neighbourhood. After having rested a little while, we proceeded till at about 11 A.M., we heard the Jarawas shouting a short distance ahead. Mr. Vaux then decided to wait till the evening until the Jarawas had gone to sleep and to attack their encampment as soon as the moon rose. So we waited there the whole day, and when the moon rose we proceeded very slowly to the attack, a few Andamanese going ahead; and Mr. Vaux, Mr. Rogers and myself holding each other's hands so as not to lose ourselves in the dark, slowly crept up to the Jarawa camp. As soon as we got near the camp we waited for a second and when Mr. Vaux passed the word, the Andamanese shouted and shot a number of arrows in the Jarawa huts. Mr. Vaux then at once with his *dah* in his hand rushed to the nearest hut on the left, while Mr. Rogers went to the right and I went straight ahead. When I had advanced a few yards the Andamanese Golat shouted out to me "*Sahib baitho, Jarawa tir marta hai, banduk maro:*" so I lay down flat on the ground, and not seeing any Jarawa about I fired my revolver in the air. I had not done this before, as Mr. Vaux had previously ordered us not to fire till he passed the word. I then saw several children come out of the hut behind which Mr. Rogers had disappeared. I crept up and secured these with the help of an Andamanese. I then heard Mr. Vaux shouting out "I am hurt," and turning round I saw him staggering and fall down. I at once went to him and asked him where he was hurt, Mr. Vaux only replied "I am done," and the Andamanese showed me that he was wounded by an arrow in the left side. Mr. Vaux then said "For God's sake take this arrow out." As I saw that the whole of the arrow head had disappeared into his body, I went for Mr. Rogers's assistance. I found Mr. Rogers struggling with a Jarawa woman, and he said that he would come in a second, as he did not wish to let the woman go. I then returned to Mr. Vaux. The Andamanese were just extracting the arrow and Mr. Vaux asked for Mr. Rogers and myself and if we could do nothing for him. As Mr. Rogers had not turned up then, I became anxious about him, thinking that the Jarawas might have wounded him also. I went to him again and told him that I thought Mr. Vaux was dying. We both went back to Mr. Vaux, who was only a couple of yards away. We bandaged him up. Mr. Vaux asked for light and water, which we gave him. After this Mr. Vaux fell back and died. We then waited in the Jarawa camp till the morning, firing a gun every half an hour to keep the Jarawas away.

25th and 26th February.—As soon as the day broke we gathered together the bows and arrows the Jarawas had left behind, and made arrangements for carrying Mr. Vaux's body. Having done this, we started back for the launch with it and the six Jarawa children and two women we had captured. Mr. Rogers sent two Andamanese ahead to go to the camp and tell the Havildar of Police to send six policemen to carry Mr. Vaux's body. We reached the camp about noon and after having packed all our things we proceeded, I going ahead and Mr. Rogers bringing up the rear. As I thought the launch would have no steam I sent some Andamanese and a free Burman with a gun ahead to inform the syrang to have the launch ready to proceed to Port Blair that evening. We had not advanced more than a few hundred yards when we heard the report of a gun; and directly afterwards caught up the party we had sent in advance. We then saw that the Andamanese Mathew had been wounded by a Jarawa, who had hidden behind a tree in front of him. The Burman had at once fired the gun and two Jarawas had escaped in the jungle, one of them leaving a bundle of fish arrows behind. The arrow which wounded Mathew was an iron-pointed one, which had wounded a Jarawa during the attack on the camp and had been extracted from the wounded man and fired at Mathew. This shows that they had not any iron-pointed arrows left with them. We must have secured all the iron arrows they had. Without further accident we reached the boats. To our further disappointment we found that the dinghy had sunk in the creek, most likely having been caught under the mangrove roots, and all the oars had floated away. We floated the dinghy again and reached the ship at 5-30 P.M. Mr. Rogers came about an hour later, his boat having been left by the tide high and dry in the mangrove swamp. After everybody had come on board we started for Port Blair, arriving at the latter place about midnight.

III.

Visit to the Middle Straits to set at liberty captive Jarawa Women and Children.

Diary of C. Gilbert Rogers, Esq., Deputy Conservator of Forests, Andamans Division, from the 11th to 14th March 1902.

11th March.—Left Port Blair in the steam launch *Belle*, accompanied by Mr. Bonig, some Andamanese and six Military Policemen and the two Jarawa women, each

with a child, and three girls at 8 A.M. The names of the Jarawa captives whom we were taking back to release are, so far as we can gather, as follows:—*Women*—Wátánge-mai, Tijé Buluwa; *Infants* (boys) Atu-to-ané, Wōtāma-tamané; *Girls*—Tijé-tang, Etélé Órlai. The last-named girl came from the Bajalonta Hunting Camp, the others from the Wibtang Camp. The two boys from the Wibtang Camp, sons of Wātānge-mai, and the infant from the Bajalunta Camp, whom the women would not take away, we left behind in Port Blair.

We reached Duratang at 10 A.M. and landed the Jarawas to see the Andamanese Home and also to get some yams for them and then proceeded up the Middle Strait. The whole of the country on either side of the Middle Strait seemed familiar to them and they made signs that they would like to be landed near the Papalunta Jig, but this we did not do.

We proceeded straight to Dumlachorag, anchored, and putting the Jarawas into a boat and taking an escort of Andamanese and four policemen, rowed up the creek and landed the Jarawas as near to the Pochang Jarawa Camp as the creek would allow of our doing. We took them a short distance across a mangrove swamp on to a low ridge, where we made a fire for them. We also made shelters with the blankets we had given them, deposited what we could carry of the yams, beads, red cloth, cocoanuts, earthenware, cooking pots, and a bucket of drinking water and left them.

Near the boat we found some plantains and cocoanuts which had accidentally been left behind. I returned with these to the camp accompanied by some policemen and Andamanese. The women did not run away when they saw us coming back, but smiled when they saw what had brought us. While we were away the baby had upset the drinking water. They made signs to us that they could get some near by and asked us to break some cocoanuts for them. This we did and left them.

We then returned to the steam launch *Belle* and proceeded to Port Anson where we anchored for the night.

12th March.—Left Port Anson at 7-20 A.M. for Dumlachorag; anchored there, and proceeded in a boat with Police and Andamanese escort to the ridge, where we had left the liberated Jarawas yesterday. Reached the camp about 9 A.M. Found the camp empty. The fires were still burning. The women and children had gone away with as much of the presents and food as they could carry. They had taken with them all the beads, most of the red cloth, one set of earthenware cooking pots, all the cocoanuts, and as much food as they could carry, and would doubtless return with their men for the remainder of the things.

We then returned to Dumlachorag and proceeded to Port Anson and went outside and salved a teak log and a numbered padouk square, which were stranded on the West Coast of the Middle Andamans. Stayed the night at Port Anson.

13th March.—Left Port Anson 6 A.M., and steamed down to Shoal Bay. Anchored a little way up Shoal Bay Creek at 10 A.M., and proceeded in a boat to Jatang. Found the Deputy Ranger in camp, but the Havildar of the Police and the Forest Jemadar were in the forest with the files. Inspected one of the new elephants, which had been rubbed by a badly fitting *galaband*. The abrasions are not serious.

We then inspected the clearing for the path from Jatang to Ike Bay. The work was progressing satisfactorily, but too many small trees had been left along the line in the portion cleared after I left Jatang: ordered that all those trees should be cut and the work pushed on with due despatch and a report of the progress made submitted to me weekly. About 3,000 feet of line has been cleared up to date.

Returned to Shoal Bay on the ebbing tide and dropped down to Duratang, where we anchored for the night. Inspected the Andamanese Home.

14th March.—Steamed down to the mouth of the Pirij Creek in the early morning. It was low tide, so had to make our way afoot through the mangrove swamp to the camp. A timber boat with new convicts was off the mouth of the creek waiting for the tide to rise when we got there.

All the men and the elephants had gone to work in the forest.

Two elephants, one new and one old, were said to be on the sick list, but as they had gone into the forest for fodder I did not see them.

Found Daniel and three Andamanese and three sepoys of the Military Police at Pirij. They had been hunting for the three Burmese runaways, who had attacked the self-supporters near Kalatang not long ago, but had failed to catch them. They had come across two places where they had camped, but state that they skilfully mix their trail with those of the self-supporters and convicts working in the forest, and that in consequence they had eluded pursuit.

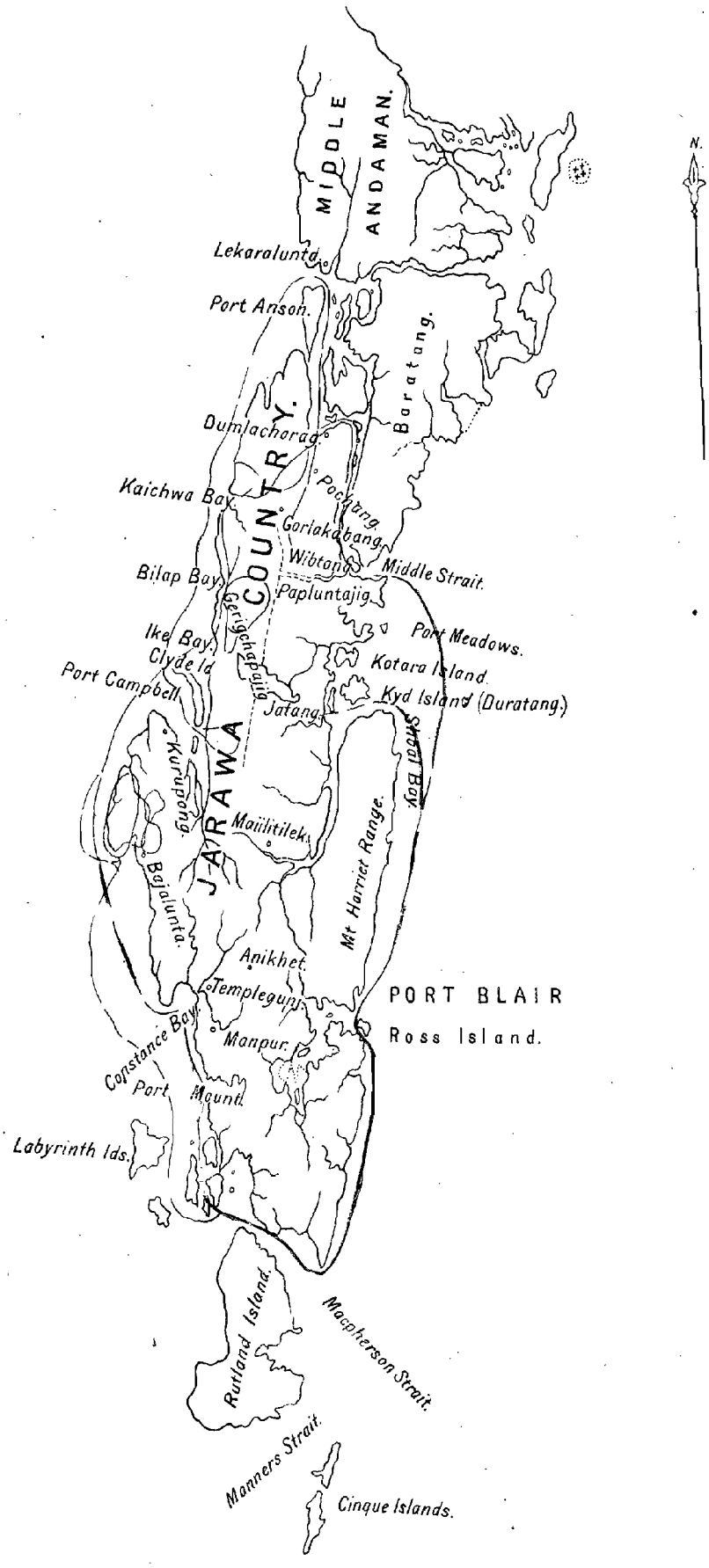
Returned to the launch and started for Port Blair. Reached Ross at 12 noon and reported my arrival to the Chief Commissioner.

IV.

LIST OF JARAWA ARTICLES TAKEN BY MR. P. VAUX FROM THE HUNTING CAMP AT BAJALUNTA ON 19TH FEBRUARY 1902.

1 Honey pot, empty.
1 Do. with resin and cyrena shells.
1 Do. with honey edibles and prepared beeswax.

Map illustrating the journeys of Messrs Vaux and Rogers in the Jarawa Country in the SOUTH ANDAMAN in January- and February 1902.



Mr. Vaux's journeys, Red.

Mr Rogers' journeys where they differ from Mr. Vaux's, blue.

2 Pottery vessels.
5 Net bags, empty.
1 Do. with 2 packets red ochre in palm leaves and fibres for binding arrows.
1 Packet honeycomb.
2 Baskets, cane.
2 Andaman adzes, made out of dahs.
1 Basula, new, of Forest Department marked with ∧ (broad arrow). Stolen on 22nd November 1901.
1 Bowstring.
2 Bows.
92 Bamboo-shaft and wooden-pointed fish-arrows.
92 Do. iron-pointed fish-arrows.
3 Barbed iron pig-arrows.
16 Bamboo arrow-shafts.

LIST OF JARAWA ARTICLES TAKEN BY MR. C. G. ROGERS, FROM THE HUNTING CAMP AT WIBTANG ON 24TH FEBRUARY 1902.

6 Honey pots, empty.
1 Do. with fibre.
1 Do. with fibre in honey and child's wooden feeding brush.
5 Andaman adzes, of sizes.
1 Axe, European head.
2 Knife blades made of dahs.
1 Adze head—European make.
1 Honey pot with king-crow chaplet, 2 bowstrings, 2 string cards, 2 pieces of resin, and 5 shells.
1 Palm leaf containing netting materials in net.
7 Empty nets.
1 Net containing 2 pots of pigment for pig arrows.
1 Net do. 2 pieces of iron and 4 shells for pigment.
1 Packet red ochre.
1 Net containing 2 pieces of iron and 2 small nets.
1 Piece of hollowed wood, containing red ochre prepared for arrow heads.
7 Iron-headed arrows.
2 Pots.
96 Bamboo wooden-headed fish-arrows.
8 Bows.
5 Arrow-shafts.
5 Pig-arrows, iron.
1 Iron arrow head.

REPORT BY MR. C. G. ROGERS, DATED THE 19TH MAY 1902, ON JARAWA CAPTIVES WHILE AT PORT BLAIR.

An infant boy and a little girl, called Orlai, captured by the late Mr. Vaux near Bajalunta (Talaplongta of the maps) were brought to Port Blair by Mr. Bonig, Assistant Harbour Master, on the 21st February 1902. The little girl, Orlai, had a very pronounced squint in her left eye. She was kept at Government House until the 26th February, when she was allowed to join the other Jarawa captives, who were taken at Wibtang on the night of the 24th February and reached Port Blair on the 26th in the *Belle* in the charge of Messrs. Rogers and Bonig. The captives taken at Wibtang comprised two women and six children including two babies. They were kept at first in the hospital at Haddo and after that in the Haddo Andamanese Home, as they got out of the hospital one morning early and were found at the *ghat* evidently trying to escape. After this they were placed definitely in the charge of Luke and the watchman at the Home and did not again try to escape.

The Jarawas would not touch rice, or any of the rations supplied to the Andamanese, nor would they smoke. They were fed on yams, fish, pig's flesh, when it could be obtained for them, and crabs. They cooked their food very thoroughly before eating it. They were very fond of cocoanuts, when they were given them, and had evidently eaten them before. They drank water, but did not care for either milk or tea. They did not like sugar or anything sweet. They would not touch honey from the Andamenese store, which had fermented slightly, but liked fresh honey in the honey-comb. The friendly Andamanese could not understand a word of the Jarawa language nor could the Jarawas understand the Andamanese; they made themselves understood to a certain extent by signs. While the captives were at Port Blair we only learnt what we believe to be their names and a few words for the food they eat.

The Jarawas were quite friendly and evidently felt that they would be well treated. Mr. Bonig and myself went to see them almost every evening while they were in Port Blair and took them out for walks, and they looked forward to our visits and the women usually took our arms, while the children clung to us. While they were in Port Blair we took them over Ross, Phœnix Bay Workshops and Chatham Sawmills. They evinced no astonishment at what they saw, but some fright. They do not seem capable of evincing pronounced emotions of any kind, either of grief or astonishment or pleasure. On

the 10th March I took the Jarawas to see the two companies of the West Riding Regiment fire at the Ranges. We first went to the firing points and saw volleys fired from 1,700, 1,500 and 1,100 yards, and then went into the butts while the men fired at and broke a *gurrah* filled with water and put bullets through a kerosine oil tin and through a hat. I showed them all this carefully and they thoroughly understand what a rifle can do and that it causes death. When we landed the Jarawas at Dum-la-Chorag I killed a flying-fox, which flew over the boat as we were rowing up the creek, and showed them the shot holes in it and they examined these carefully and must now associate death with the discharge of a gun.

The Jarawas also visited Lamba Line Village and were hospitably entertained by the (Native Indian) villagers, who clothed them and entertained them with music. The Jarawas and villagers passed their babies from one to another, and evidently enjoyed themselves, as they laughed and talked and seemed quite pleased.

On the evening of the 10th March I took some photographs of the Jarawas. On the 11th March Mr. Bonig and self took the two women, two babies and four girls back to Pochang, keeping the two boys, as ordered, here. The boys were very sorry to leave their parent. They were brothers. We took the Jarawas to the Duratang Andamanese Home on Kyd Island on the way. Before leaving the women at Pochang we made signs to them that we would bring the two boys back to the place where we left them.

APPENDIX D.

MR. M. V. PORTMAN'S REPORTS OF THE FIRST DEALINGS WITH THE ÖNGES IN 1886.

In accordance with instructions, I left Port Blair in the steamer *Ross* on the 27th October 1886, having No. 1 lighter, and a 10-oared boat in tow. Six convicts and 27 Andamanese accompanied me, and I had rations for three months for the entire party.

I arrived at the Little Andaman Island on the 28th October, and anchored in Bumila Creek. For the next three days we were engaged in making a small clearing on the east bank of the creek, and housing the party. The little Andamanese from the neighbouring huts came down daily to visit me, and were very friendly. I heard with regret that the little boy Api I had left with the Ekudi tribe in April 1886 was dead, but the remainder of those people who had lived with me in Port Blair, all came to my camp. Women and children now came fearlessly to the camp, and the first difficulty I met with was that of preventing the savages from looting the camp of everything they fancied. By making an example of one of the first cases that occurred, and treating the delinquents somewhat roughly, I soon got them to understand that they were only to have what we gave them, not all they saw, and from that time, with two exceptions to which I shall refer later, I have had no trouble. I have been very lavish of presents to all the people.

Very stormy weather began just after my arrival, and I therefore confined my work to going about amongst the neighbouring villages and endeavouring to gain influence over these people, and to learn their language. The Andamanese I had brought with me were occupied in turtling, canoe cutting, etc., and I encouraged the Little Andamanese to go amongst them and associate with them. They soon took to swimming off on board the steamer or coming in their canoes to visit me, and occasionally brought me baskets of dried fish as presents. On November 3rd three men, whom I afterwards found belonged to the south coast of the Island, paid me a visit, and were very pleasant.

On the 12th November I tried to go down the coast in the *Ross* and cross to the South Sentinel Island, but the weather was so bad that I was obliged to put back. The Little Andamanese with me gave me the name of the South Sentinel Island "Kelagageai," but said that they had never been there. On the 13th I coasted down to Tokaini and saw all the people there. They received me in an unconcerned way and appeared to take little interest even in the presents we had brought. I learnt that the man captured at Jackson Creek in January 1885, who afterwards died in Port Blair, was from the Tokaini village, and that his real name was Taleme.

On the 14th very heavy rain commenced, and on the 15th a cyclone set in, which lasted till the 20th. With the exception of the loss of her side curtains the *Ross* sustained no damage. I had both anchors down and hawsers passed outside all. Until the 18th I was unable even to get ashore on the bank of Bumila Creek, where we were anchored, and the convicts and Andamanese suffered very much. The clearing was 18 inches under water, and the people were living on raised machans they had made. All the Andamanese huts had been blown down, but the tents, being more sheltered, had stood. It would have been dangerous to have gone further into the jungle, owing to the falling branches of trees, and on the sand one could not stand up to the wind, but had to crawl along. Much damage was done in the jungle, quantities of dead fish were washed up on the coasts, and many birds and bats seem to have been killed. The Little Andamanese seem to have suffered much from the cold and want of food, and several sick whom I had seen at Tokaini on the 13th had died. As soon as the cyclone was over many people came to me for food. The rain was so heavy that the creek was running with fresh water down to the mouth. After this storm the place seemed to become unhealthy, and from that time onward there has been a great deal of sickness amongst the Andamanese and convicts. I did not suffer much myself until January.

Owing to the heavy sea on outside I was unable to go anywhere until the 24th, and the Andamanese continued cutting boats and catching turtle. On the 24th I visited Jackson Creek. The landing here was very difficult owing to the surf, and our boat was swamped. It is impossible to enter the creek as the sand has now silted up so much and I landed on the north side of it. Several people met us and were given presents. I walked along the shore with them for some distance, and visited some sandstone caves, in which were the grass variety of edible birds'-nests. All the water here contains much lime, and stalactites are formed in the caves.

On the 26th I was visited by Her Majesty's I. M. S. *Kwangtung*, the Commander supplying me very kindly with such rations, etc., as I required. On the 29th I walked down the coast from Jackson Creek to Api Island and went some way into the interior. The people received us in a friendly manner, but were very greedy for presents, taking every thing they saw, not only out of the boats but even from the persons of my Andamanese and seizing many articles which could be of no possible use to them. This behaviour I checked with the help of the interpreters I had brought down from Bumila Creek, and the people soon began to obey my directions.

Much sickness having now set in, I came up to Port Blair with the worst cases on the 1st December. There was a heavy sea on and the *Ross* had a good opportunity of

showing what a fine sea boat she is. Two little Andamanese from the Ekudi village accompanied me, one of whom, Kogio Kai, had been in Port Blair before as a captive in 1885. On the 4th December I returned to the Little Andaman (arriving there on the 5th) with some fresh convicts and Andamanese. The weather on the way back was even worse than what we had coming up.

My absence, leaving a small party of convicts and Andamanese on the Island, had been a good test of the work done, and I found on my return that the Little Andamanese had been living with them in my camp in the most friendly manner.

I was kept in the creek by bad weather until the 12th December, during which time the crew of the *Ross* were employed in cutting firewood in order to save our coal, and the convicts and Andamanese went about with me inland and on the coast to the various villages.

I also commenced a coast line survey of the Island with prismatic compass and chain. The Little Andamanese or Önges, as they call themselves, were constantly in camp and began to pick up a little Hindustani.

On the 12th and 13th I worked along the coast, surveying down to Tochangedu, where my work was stopped by the heavy surf, so I began on the 15th to work E. and S. from the North Point of the Island. A curious incident occurred on the 17th which will illustrate the influence I have acquired over the neighbouring people. Kogio Kai told me that a man of his own tribe had stolen some knives belonging to us. I sent for the man, admonished him and forbade him to come to the camp. Tahlai, one of his own tribe, then escorted him to Tambe Ebui, and he has not since been allowed to visit us. The Ekudi people on another occasion behaved in a similar manner to the Palalankwes who had stolen some turtle spears, refusing to allow them to land near the clearing or visit us for several days.

By the 19th of December I had surveyed as far as Titaije, meeting many people of all sizes and sexes who were very pleasant and friendly, and I then returned to Bumila Creek, beached the *Ross*, cleaned and painted her. Her Majesty's I. M. S. *Nancowry* called on the 21st, and on the 22nd I proceeded to Port Blair with the sick from my camp, and with nine Önges picked from the following tribes:—Ekudi, Pálálankwe, Tokaie, Tambe, Ebui and Titaije.

I remained in Port Blair until the 27th when I crossed with the party to the North Sentinel Island. The Önges gave me their name for it as Chirtakwekwe, and appeared well acquainted with it. They walked fearlessly about in the jungle, but, on catching some of the inhabitants on the evening of the 27th, it was found that they talked an entirely different language. On the 28th I visited Port Mouat, returning to Port Blair on the 29th, and on the 2nd January I returned to the Little Andaman.

During their stay in Port Blair, the greatest care was taken that the Önges should not suffer in health, and they were shown every thing I thought would interest them, including the athletic sports and the military parade on the 1st January, and were also given quantities of presents, being allowed to have almost every thing they fancied, and they appeared so delighted with their visit that, on the way back, they said they would come up to Port Blair in their canoes in the fine weather.

On the 3rd January I started down the East Coast surveying. In addition to my party I was accompanied by Tomiti, Tahlai and Kogio Kai, who were of the greatest assistance. People came out to meet us at each village, and every one was quiet, friendly and pleasant. On the 4th I anchored in Daogule Bay, having been accompanied by nearly fifty people all along the coast. On the 5th I met at Toi-balewe, Nátúdétotali Kégé, one of the women who was captured on the Cinque Islands in 1885. On the 6th I met at Ingoie, on the South Coast, the three men who had visited me at Bumila Creek on the 3rd November last. I completed the survey on the 7th closing on Api Island, and then returned to Bumila Creek.

The weather now got stormy again, and I began to suffer very much in health. The survey being finished, I having visited all the villages round the Island and being on the best terms with all the people, and our stores being nearly exhausted, I returned to Port Blair on the 19th January with the entire party. The work I was sent down to do has, I think, been accomplished, and we are now on as friendly terms with the Little Andamanese as we are with the inhabitants of the North Andamans.

From what I can learn, I am of opinion that, while the whole of the Little Andaman Island is peopled by one race calling themselves Önges, these people are sub-divided into tribes who adhere more or less to their own country, and who appear to quarrel and fight among themselves. What little I have learnt of their language I have embodied in my work on the languages of the Andamanese, written at your request, but the amount is small. It differs almost totally from any language with which we are acquainted, except that of the Jarawa tribes.

The people appear healthy, their principal diseases being chest complaints, coughs and colds, fever and itch. There is no syphilis amongst them, and in physique they compare favourably with the inhabitants of the Great Andaman.

Their manners and customs differ somewhat from those of our people, the principal differences I have noticed being the following:—

The large circular huts built by them; the raised charpoys on which they sleep; their habit of cooking, drying and storing in baskets a small fish similar to a sprat; the difference in the shape of their canoes at the bow and stern; the difference in their ornaments,

and the absence of bone necklaces and broad tasselled belts amongst them; the women wear a tassel of a yellow fibre in the place of the leaf worn in the Great Andaman; the difference in the shape of the bow, which is of the European pattern. The arrows used for fish frequently have four heads of different lengths fitted into one shaft.

The people are by no means expert in the use of a canoe in the rough water, and are unable to harpoon turtle. They paint their hair only with red earth, and not their entire bodies, and they do not allow their hair to grow long; the women do not keep their heads clean shaved.

Their staple food appears to be the seed of the mangrove, boiled, as that article of diet is always to be seen in their huts, supplemented of course by whatever else they can get.

I may here mention that, after close and continued observation of their habits, I entirely disbelieve the legend that they were formerly in the habit of visiting the Car Nicobar Island.

It was very pleasant to see the numbers of healthy children of both sexes in the various villages; the people seem to marry later in life than do the Great Andamanese, but the same system of monogamy prevails.

The music of their songs is different and more pleasing, and it is not accompanied by clapping of hands, or striking of a sounding board. Their dance is peculiar and unlike that of the other Andamanese.

They have no religion of any kind, and I have learnt nothing of their traditions or superstitions from which they seem even freer than our people.

In conclusion I may say that the people are by no means fierce, being if anything of a milder disposition than our people, and I became very much attached to them, which attachment is, I think, returned. They are easily silenced or frightened, and are in great dread of a gun.

The Island at the north end appears to consist of mangrove swamp, and low belts of sandy soil on which the aborigines live. On the west and south-west coast the land rises into low hills of a coarse sandstone, running more or less north and south. The timber appears to be much the same as that of the South Andaman, and the rocks are chiefly lime and sandstone with a good deal of actual coral rock on the east and south coast. In one place on the point south of Daogule Bay I noticed an outcrop of igneous rock. There appeared to be no minerals.

The products of the sea appear to be the same as at the Great Andaman, but that the Tubiporine family of coral, particularly *Tubipora musica*, occurs in profusion. Dugong and turtle abound in the sea, and I captured two of the former, one being a remarkably fine specimen, and many of the latter.

The Önges are very fond of turtle which they are unable to get with the facility with which our Andamanese catch them, as they are ignorant of the use of the harpoon, and turtle always formed a great part of my presents to them.

In rough weather landing is almost impossible on most of the coast, and in calm weather there are heavy ground swells and tide rips. The following are the best anchorages of small vessels:—Bumila Creek; Eketi Bay, just inside the north end of Nachuge Point; Gijege, opposite Ingoie, about half a mile from shore; Hut Bay; Daogule Bay and Obate. Landing is difficult in most places and I always used an Andamanese canoe.

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With regard to their (the Önges) behaviour to shipwrecked crews, I am of opinion that the crew of any native vessel wrecked there would still be liable to be massacred, and though a European, if wrecked on the north coast might be well treated, I should not like to guarantee his safety. Shipwrecked sailors are rarely diplomats and would be extremely likely to resent the looting of their ships or persons in a manner which would certainly lead to their being shot. This looting cannot be prevented, the temptation being too great for any savage, however tame, and the general education of the Önges will take some years. It is quite safe for any Settlement official to visit the Island and land. I would advise him first to land at Bumila Creek and take on board either Kogio Kai, Tomiti or Tahlai, or else one of the following:—Wana Luege of the Ekudi tribe or Kogio Kokele of Palalankwe village, who would act as interpreters at any other part of the island, where he wished to land.

The presents which the Önges most appreciate are hoop iron, rod iron, files, sleeping mats, cocoanuts, plantains, beads, and specimens of the articles used by our Andamanese; also turtle, which can easily be got at the South Sentinel Island. The Önges are, I believe, quite willing to come to Post Blair in their canoes in the fine weather, but great care should be taken that they do not contract any disease, particularly syphilis, if they do come up. They will take to smoking kindly, but I have not encouraged this, as my aim is to keep them in their healthy primitive state, and I believe this can be done, and they can still be brought to obey our orders and remain on friendly terms with outsiders. We require very little of them, and a close intercourse with these savages means death to them.

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On the 4th March the Chief Commissioner, accompanied by Lieutenant-Colonel Roberts, 7th Regiment, Madras Native Infantry, Mr. Portman, on special duty at the Little Andaman Island, Mr. Metcalfe, Officer in charge of the Andamanese, and a number of Andamanese, left Port Blair in the steamer *Ross* at 6 A.M., and arriving in Bumila Creek, north end of the Little Andaman at 2 P.M. Some of the Önges, as the natives of the Island

call themselves, visited us at once, and our old friends Tomite, Tahlai, Wana Luege and Kogio Kokele were taken on board as interpreters.

On the 5th we proceeded along the north coast, taking on board Kogio Kai off Kuaie-chikuada Creek. After inspecting the Ariel Ledge, we anchored at 10-30 A.M. off the mouth of the Tiyai Creek on the East Coast. Several Önges of both sexes were on the shore, and we landed amongst them, giving them presents. They were quite friendly, and we visited their hut at Titaije. In the evening we rowed up the Tiyai Creek, which is one of the most beautiful in this group of islands and had not been before explored. All our Andamanese remained on shore for the night with the Önges and had a feast of turtle.

On the 6th none of the Önges were seen, although we landed in two places, and we anchored for the night in Hut Bay on the East Coast.

On the morning of the 7th two men appeared and were given presents, and we then went on to Toibalowe, a large hut on the south-east corner of the Island, measuring 60 feet in diameter and about 35 feet in height. Shortly after we landed, a number of Önges made their appearance and were given presents. I walked to a village of 14 lean-to huts a little way in the interior, and my party were regaled with pig and honey. As usual amongst these people, there were a few ill-tempered, conservative old men, who refused to be pleased with us. Our interpreters decided to walk on round the coast, and meet us at Ingoie on the South Coast, and I brought on board two new men, sending them on shore again when we reached Ingoie that afternoon. There is a good landing place here, the reef being broken in one place, just opposite the hut. The best anchorage is in 8 fathoms, about half a mile from the shore.

In the evening we visited the rock where Lieutenant Much's expedition landed in 1867, and the Önges appeared to have some remembrance of it.

My Andamanese slept ashore as usual with the Önges, a number of whom had followed us round. On the 8th Her Majesty's I. M. S. *Kwangtung* arrived with Lieutenant-Colonel Strahan and his survey party, and Mr. Man, Officer in charge Nicobars. The survey work was at once commenced. The Önges were rather troublesome, trying to steal the metal of the instruments, but no fracas took place, and with the presents we had given them they were quite pleased.

On the 9th the Chief Commissioner, with Lieutenant-Colonel Strahan, Mr. Man and Mr. Metcalfe went to the north end of the Island for the day in the *Ross* to observe for latitude, and Lieutenant-Colonel Roberts and I remained behind in the *Kwangtung*. Mr. Senior, Assistant Surveyor, with his party landed at 8-30 A.M. at Ingoie, and attended by the Andamanese, our Önge interpreters, and two canoes with presents, proceeded to survey the coasts round to Ingotiálú on the south-west Coast. The canoes with the presents were swamped in the surf, and one canoe and all the presents were lost. The Önges, however, beyond being greedy for such metal as they saw, gave no trouble, and Mr. Senior, having completed his work, came off at 4 P.M. to the *Kwantung*, which vessel after looking for the shoal marked in the chart as being about 4 miles south-west of the south-west end of the Island, and finding that it did not exist (the broken sea being really caused by a tide rip), had anchored off Ingotijálú. Mr. Eldridge and Mr. Baynes had been ashore bathing from a Nicobarese canoe, and some Önge women had joined them in the water and seemed quite friendly.

At 5 P.M. I landed with Captain Pryce, I. M., Lieutenant-Colonel Roberts, and Mr. Murray, Chief Engineer of the *Kwangtung*. I had with me as an interpreter Kogio Kai, and two of our Andamanese, Réálá and Dúklá. Unfortunately I had no presents, they having been lost in the canoes. We were received on the shore by about 25 people, among whom were many women and children, and they were all unarmed except two men who had adzes. They were very greedy for presents and tried to loot the boat, but were prevented by Kogio Kai and myself. Mr. Murray, however, gave them an iron bucket, which they had taken and I had recovered from them. They embraced Kogio Kai, and we all walked along the shore together taking two *khalasis*. After we had proceeded about 200 yards, Captain Pryce drew our attention to some fish on the beach, and he with Lieutenant-Colonel Roberts and Mr. Murray stopped to look at them. I was a few paces behind talking to the Önges by whom we were surrounded. Suddenly I heard a thud, and Mr. Murray cried out 'I am killed.' I turned and saw Mr. Murray on his knees on the sand, the blood streaming from a wound on the back of his head, and a tall Önge standing just behind him with a large adze in his hands. The attack was quite an unprovoked one, and from the fact that the women and children were present and none of the other Önges were armed, I consider it to have been unpremeditated and without the approval of the others, who immediately began to retire. Kogio Kai called to me to shoot the Önge, but none of us had any arms, and we all went off to the boat, Captain Pryce and a *khalasi* supporting Mr. Murray, and Colonel Roberts waiting in the rear to see if the man was going to attack us again. He did not attempt to do so, and the Önges all went and sat down at the landing-place. We returned to the *Kwangtung*, and I asked Captain Pryce to arm all the Europeans and place them at my disposal. He did so and ordered away two boats. I also took with me Tomiti, Tahlai, and Kogio Kai. On nearing the shore, I sent Tomiti and Tahlai to see if the man who hit Mr. Murray was still there. Colonel Roberts, who kindly consented to take charge of the armed party, covered them from the boat.

They talked to the women for a minute, and then called out to me that the man had run away. I, however, saw a man with an adze in his hand sitting on the right, away from

the others, and I asked Kogio Kai if this was the man. He said it was and called out to Tomiti, who with Tahlai seized the man and dragged him into the boat, having first snatched the adze out of his hand. None of the other Önges attempted to rescue him or to offer any resistance. Our prisoner was secured and taken on board the *Kwangtung*. The Chief Commissioner, who had meantime returned in the *Ross*, directed me to have the man tied up to a gun and given twenty-four stripes, which was accordingly done. He was then secured and taken to the *Ross*. Mr. Murray, under the charge of Mr. Jackson, apothecary of the *Kwangtung*, was also taken on board the *Ross* for the purpose of being conveyed to Port Blair for medical treatment, his wound being a serious one, the *Kwangtung* returning to the Nicobars.

On the following morning six Önges appeared on the beach, and I sent Tomiti and Tahlai ashore with some presents for them, and to explain what had been done to the prisoner and that we intended to take him to Port Blair.

We then proceeded to Jackson Creek on the West Coast, where the Chief Commissioner and Mr. Metcalfe landed and gave some presents to the Önges, and we then went on into Bumila Creek where we anchored for the night. Our interpreters were landed here and loaded with presents, and on the 11th we returned to Port Blair, bringing with us the prisoner, whose name proved to be Kobédá Ráté, an inhabitant of Gajégé, a village on the south-west coast of the Little Andaman.

Until the interpreters left he did not seem to realize his position, but during the night of the 10th after they went away, he twice managed to free his hands from the handcuffs, and once, although his feet were manacled together, slipped overboard and tried to swim on shore, but was at once caught by one of our Andamanese. He is now living under the Chief Commissioner's house guarded by Andamanese and seems fairly well. It would, in my opinion, be advisable, should he continue in good health, to keep him for some months in Port Blair, until he has learnt to obey our orders and appreciate our power.

CHAPTER IV.

THE LANGUAGES.

I. General Description.—Philological Value—Savage Nature—Agglutinative—Samples of Minuteness in Detailed Terms—Specimens of Andamanese Method of Speech.

II. Grammar.—History of the Study—The Theory of Universal Grammar—The Position of the Andamanese Languages in the General Scheme—Examples of Sentences of One Word—Elliptical Speech—Portman's Fire Legend in the Bea Version dissected to illustrate Grammar—Subject and Predicate—Principal and Subordinate Words—Functions of the Words—Order of Sentence—Order of Connected Sentences—Interrogative Sentences—Mode of expressing the Functions and Interrelations of Words—The Use of Affixes; Prefixes, Infixes, Suffixes—Differentiation of Classes of Words—Indication of Classes—Qualitative Affixes—Composition of the Words—Agglutinative Principle—Identity of the Five Languages of the Southern Group of Tribes.

III. Etymology.—The Use of the Roots—Anthropomorphism Colours the whole Linguistic System—The Use of the Prefixes to Roots—To Words denoting the Human Body—To Words referring to the Human Body—The Prefix of Intimate Relation—The Prefix System—Prefixes to Words relating to Objects—General Senses of the Prefixes to Roots—The Use of the "Personal Pronouns"—Limited Pre-inflexion—Limited Correlated Variation (Concord)—Expression of Plurality by Radical Prefixes—Qualitative Prefixes—Functional Suffixes—Functional Suffixes are Lost Roots: attempt at recovery.

IV. Phonology.—The Voice of the Andamanese—History of the Reduction of the Language to Writing—Peculiarities of Speech.

V. The Northern and Outer Groups.—Proof of the Identity of the Northern and Southern Groups of Languages—The Outer Group (Önge-Jarawa) examined—The Limited Knowledge of it—Recovery of Colebrooke's Jarawa Vocabulary, 1790—Proof of its Identity with the Other Group—Derivation of "Mincopie."

Appendix A.—The Theory of Universal Grammar.

Appendix B.—An Önge Vocabulary.

Appendix C.—The Fire Legend in the Bojigngiji Group.

I. General Description.

Philological Value.—The Andaman Languages are extremely interesting from the philological standpoint, on account alone of their isolated development, due to the very recent contact with the outer world on the part of the speakers. Of the speech of the only peoples, who may be looked upon as the physical congeners of the Andamanese,—the Samangs of the Malay Peninsula and the Aetas of the Phillipine Archipelago,—no *Vocabulary* or *Grammar* is available to me of the latter, and the only specimens of the Samang tongue I have seen bear no resemblance or roots common to any Andamanese Language.

The Andamanese Languages exhibit the expression only of the most direct and simplest thought, show few signs of syntactical, though every indication of a very long etymological, growth, are purely colloquial and wanting in the modifications always necessary for communication by writing. The Andamanese show, however, by the very frequent use of ellipsis and of clipped and curtailed words, a long familiarity with their speech.

The sense of even Proper Names is usually immediately apparent, and the speakers invariably exhibit difficulty in getting out of the region of concrete into that of abstract ideas, though none in expanding or in mentally differentiating or classifying ideas, or in connecting several closely together. Generic terms are usually wanting, and specific terms are numerous and extremely detailed. Narration almost always concerns themselves and the chase. Only the absolutely necessary is usually employed and the speech is jerky, incomplete, elliptical and disjointed. Introductory words are not much used and no forward references are made. Back references by means of words for that purpose are not common, nor are conjunctions, adjectives, adverbs and even pronouns. An Andamanese will manage to convey his meaning without employing any of the subsidiary and connecting parts of speech. He ekes out with a clever mimicry a great deal by manner, tone and

action; and this habit he abundantly exhibits in the form of his speech. His narration is, nevertheless, clear, in proper consecutive order and not confused, showing that he possesses powers of co-ordination.

Savage Nature.—The general indications that the Languages give of representing the speech of undeveloped savages are confirmed by the intense anthropomorphism exhibited therein. As will be seen later on, the Andamanese regard not only all objects, but also every idea associated with them, as connected with themselves and their necessities, or with the parts of their bodies and their attributes. They have no means of expressing the majority of objects and ideas without such reference; *e.g.*, they cannot say "head" or "heads," but must say "my, your, his, or ———'s, this one's, or that one's head" or "our, your, their, or ———'s, or these ones', those ones' heads."

But though they are "savage" languages, limited in range to the requirements of a people capable of but few mental processes, the Andamanese Languages are far from being "primitive." In the evolution of a system of pre-flexion in order to intimately connect words together, to build up compounds and to indicate back references, and in a limited exhibition of the idea of concord by means of post-inflexion of pronouns, they indicate a development as complete and complicated as that of an advanced tongue, representing the speech of a highly intellectual people. These lowest of savages show themselves to be, indeed, human beings immeasurably superior in mental capacity to the highest of the brute beasts.

Agglutinative.—The Andamanese Languages all belong to one Family, divided into three Groups, plainly closely connected generally to the eye on paper, but mutually unintelligible to the ear. They are agglutinative in nature, synthesis being present in rudiments only. They follow the general grammar of agglutinative languages. All the affixes to roots are readily separable, and all analysis of words shows a very simple mental mechanism and a low limit in range and richness of thought and in the development of ideas. Suffixes and prefixes are largely used, and infixes also to build up compound words. As with every other language, foreign words have lately been fitted into the grammar with such changes of form as are necessary for absorption into the general structure of Andamanese speech.

Samples of Minuteness in Detailed Terms.—The following are examples of the extent to which the use of specific terms to describe details of importance to the Andamanese is carried by them.

Stages in the growth of fruit:—*Otdereka,* small: *chimiti,* sour: *putungaij,* black: *chebada,* hard: *telebich,* seed not formed: *gad,* seed forming: *gama,* seed formed: *tela,* half-ripe: *munukel,* ripe: *roichada,* fully ripe: *otyobda,* soft: *chorure,* rotten.

Stages of the day: *Waingala,* first dawn: *elawainga,* before sunrise: *bodola doatinga,* sunrise: *lilti (dilma),* early morning: *bodola kagalnga,* morning: *bodola kagnga,* full morning: *bodo chanag,* forenoon: *bodo chau,* noon: *bodola loringa,* afternoon: *bodo l'ardiyanga,* full afternoon: *elardiyanga,* evening: *dila,* before sunset: *bodola lotinga,* sunset: *elakadauya,* twilight: *elaryitinga,* dark: *gurug chau,* midnight.

Specimen of Andamanese Method of Speech.—The following account of a story, abstracted from Portman, of an imaginary pig hunt as told by a Bea *eremtaga* (forest-man) for the amusement of his friends, will go far to explain the Andamanese mode of speech, and the form that its Grammar takes.

The narrator sits on the ground, facing a half circle of lounging Andamanese. After a short silence, he leans forward with his head bent down. Suddenly he sits erect with brightening eyes and speaks in a quick, excited way, acting as if carrying on a conversation with another person. "After how many days will you return?" And then answering as if for himself: "I will come back to-morrow morning, I am off pig-hunting now." A pause. "I am going." Very suddenly. "You stay here." Moving as if going away. "I am going to another place." Squeaking like a young pig with pantomime of shooting it. "It is only a little pig. I will take it to the hut." Moving his shoulders as if carrying. "They roasted it there." Wave of the hands signifying that the pig was of no account. Pause. "I started in the early morning after a big one,——a big pig." Motions of hands to show length and breadth of pig. To an imaginary friend. "I will sharpen pig arrows to take

with me. Come after me and we will hunt together." Imitation with the hands of a pig running, shooting arrows, slap on the left breast, squeals of several wounded pigs, and so on. A pause. "You take them in front of me." Directions by pantomime to other persons as to the pigs. "They were cooking them for me in the hut, cooking them well." Brightens up and begins again. "I will bring several more." Pretends to listen. "We have got them. The dogs are barking." And so on for hours.

The actual expressions for such a story are :—

Ba kichika arla—l'—eate ngo on ? Wainga—len do on . Ña do reg
How many day———past you come? Morning—in I come. Now I pig
dele. Kam wai dol. Kam wai do on . D'-arlog—len
hunt. Away indeed I . Away indeed I come (go). Me-behind-in
ka . Wai do jala———ke. Reg-ba . Kam wai do ik on .
there. Indeed I go-away--do. Pig--little. Away indeed I take come.
Wai ka eda otjoi . Do lilti doga———lat. Reg
Indeed there they roasted. I (in-the)—early morning big-(pig)—for. Pig
doga. Do ela l'igjit——ke. D'-okanumu-kan. Kaich d'—arolo.
big . I pig-arrow sharpen—do. I—go———do. Come me--after.
Do-ng'—igdele. D'—okotelema ik on . Wai d'a-be otjoi-———ka
I—-you-hunt . Me-——before take come. Indeed me--for cooking—-were
bud-len. Tun roicha-beringa-ke. Ña do ikpagi—ke. Ikre ka .
hut-in . Very ripe—-good—-do. Now I several-do. Getting—were.
Wai eda ikkenawa.
Indeed they barked .

Nothing could show more clearly how "savage" the speech is in reality, how purely colloquial, how entirely it depends on concurrent action for comprehension. When the party, who were out with Mr. Vaux when he was killed by the Jarawas in February 1902, returned, they explained the occurrence to their friends at the Home in Port Blair by much action and pantomime and few words. The manner of his death was explained by the narrator lying down and following his movements on the ground.

II. Grammar.

History of the Study.—I have taken so large a share in the development of the knowledge of the Andamanese tongue that a brief personal explanation is here necessary to make clear the mode of presenting it that now follows.

The first person to seriously study the Andamanese Languages and reduce them to writing was Mr. E. H. Man, and in this work I joined him for a time soon after it was commenced, and in 1877 we jointly produced a small book with an account of the speech of the Bojigngiji Group, or more strictly, of the Bea Tribe. We then worked together on it, making such comparisons with the speech of the other Andaman Tribes as were then possible and compiling voluminous notes for a Grammar and Vocabulary, which are still in manuscript. In 1882 the late Mr. A. J. Ellis used these notes for an account of the Bea Language in his Presidential Address to the Philological Society.

In compiling our manuscript, Mr. Man and myself had used the accepted grammatical terms, and these Mr. Ellis found to be so little suited to the adequate representation for scientific readers of such a form of speech as the Andamanese, that he stated in his Address that :—

> "We require new terms and an entirely new set of grammatical conceptions, which shall not bend an agglutinative language to our inflexional translation."

And in 1883 he asked me, in a letter, if it were not possible "to throw over the inflexional treatment of an uninflected language."

The Theory of Universal Grammar.—Pondering, for the purpose of an adequate presentation of Andamanese, on what was then a novel, though not an unknown, idea, never put into practice, I gradually framed a Theory of Universal Grammar, privately printed and circulated in that year. This Theory remained unused, until Mr. M. V. Portman compiled his notes for a

Comparative Grammar of the Bojigngiji (South Andaman) Languages in 1898, based avowedly, but not fully, on my Theory. These notes I examined in a second article on the Theory of Universal Grammar in the Journal of the Royal Asiatic Society in 1899, which again was subjected to the favourable criticism of Mr. Sidney Ray, who has since successfully applied it in outline to 16 languages, selected because unrelated and morphologically distinct, *viz.*—

1. English.
2. Hungarian.
3. Latin.
4. Khasi, Hills of N. E. Bengal.
5. Anam, French Cochin China.
6. Ashanti, West Africa.
7. Kafir, South Africa.
8. Malagasy, Madagascar.
9. Olo Ngadju or Dayak, South East Borneo.
10. Nufor, Dutch New Guinea.
11. Motu, British New Guinea.
12. Mortlock Islands, Caroline Group. Micronesia.
13. Mota, Banks' Islands, Melanesia.
14. Samoan, Polynesia.
15. Awabakal, Lake Macquarie, Australia.
16. Dakota, North America.

With this brief history of the study of the Andamanese Languages, I will now give an exposition of the Theory so closely bound up with it as briefly and clearly as I can, in order to explain the method employed for exhibiting the peculiarities of Andamanese speech. A more detailed account, specially developed to a considerable extent for the present purpose, will be found in Appendix A.

All speech expresses a communication between man and man by talking or by signs. Languages are varieties of speech. The unit of every language is the expression of a complete communication, *i.e.*, the sentence. All sentences are divided into incomplete expressions of communication, *i.e.*, words, and are as naturally mulitiplied into languages. Thus there is a development both ways from the sentence.

The necessary primary division of every sentence made up of words is into the matter commmunicated (subject) and the communication made about it (predicate). The words in each of these divisions are of necessity in the relation of principal and subordinate, which involves the fulfilment of a function by every word.

The function of the principal word of the subject is obviously to indicate the matter communicated and of the subordinate words to explain the indication and illustrate that explanation. Similarly the principal word of the predicate indicates the communication made and the subordinate words illustrate the indication or complete it.

Therefore, in every language the essential words in a sentence are:—

(1) indicator, indicating the subject or the complement,
(2) explicator, explaining that indication,
(3) predicator, indicating the predicate,
(4) illustrators, illustrating the predicator or the explicator.

As all speech expresses a communication, it has a purpose, and the function of the sentences is to express one of the five following purposes:—(1) affirmation, (2) denial, (3) interrogation, (4) exhortation, (5) information. The methods adopted for indicating the purpose of a sentence are (1) placing the components in a particular order, or (2) varying their forms or the tones in which they are spoken, or (3) adding special introductory words. When the purposes of speech are by their nature connected together, this connection is naturally indicated by connected sentences in the relation of principal and subordinate, which is expressed by methods similar to those above noted, *viz.*, placing them in a particular order, or varying the forms or tones of their components, or adding special referent words of two kinds, (1) simple conjoining words, (2) words substituting themselves in the subordinate sentence for the words in the principal sentence to which they refer.

The relation of the words composing the parts of a sentence is also expressed by the similar methods of adding special connecting words, or of varying the forms or tones of the words; and so, too, the intimate relation between indicator and predicator, indicator and explicator, illustrator and predicator, predicator and complement, referent substitute and principal, is similarly expressed by special connecting words, by correlated variation of the words in intimate relation, by their relative position, or by the tones used in severally expressing them.

Complete communication can be, and is habitually, in every language, made without a complete expression of it in speech, and so referent words are made to refer to words unexpressed and to be related or correlated to them, and referent substitutes are made to indicate the unexpressed subject or complement of a sentence.

The function of the sentence and the inter-relation of the words composing it are therefore in all speech expressed by three methods: position, variation, or addition of special words. Every language adopts one or more or all of these methods.

Therefore, in every language the optional words in a sentence are:—

(5) connector, explaining the inter-relation of the components,
(6) introducer, explaining its purpose,

(7) referent conjunctor, joining connected sentences,
(8) referent substitutes, indicating the inter-relation of connected sentences or unexpressed communications.

To the essential and optional components of the sentence must be added (9) the integer, or word that of necessity in every language expresses in itself a complete communication, *i.e.*, is a sentence.

Thus is explainable the natural resolution of the sentence into its component words, but any word can be and habitually is extended to many words, used collectively to express its meaning. Words thus used collectively form a phrase, which is substituted for its original. When a phrase contains in itself a complete meaning, and thus is a sentence substituted for a word, it becomes a clause. Therefore, clauses and phrases are merely expanded words, fulfilling the functions and bearing the relations of the words for which they are substituted in an expanded sentence or period. Therefore also, the period is a true sentence in the sense of being the expression of a complete meaning and so the unit of every language adopting it.

In all speech words are made to indicate the functions they fulfil in a sentence by their position in it, with or without using tones and with or without variation in form, and this habit gives rise of necessity to classes of words according to function. And as any given word can naturally fulfil more than one function, it becomes as naturally transferable from its own class to another, the transfer being indicated by position in the sentence with or without variation in form or tone. The class of a word thus indicates its function, and its position, alone or combined with its form or tone, indicates its class.

So when a word is transferred from its original class, it necessarily fulfils a new function and becomes a new word, connected with the original word in the relation of parent and offshoot, each equally of necessity assuming the form or tone of its own class.

The functions of words in a sentence, and consequently their classes, are therefore in all speech expressed by two methods: position or position combined with variation. Every language adopts one or other or both.

When in any language connected words differ in form, they are made to consist of a principal part or stem and an additional part or functional affix. The stem is used for indicating the meaning of the word and the functional affix for modifying that meaning according to function, by indicating the class to which the word belongs or its relation or correlation to the other words in the sentence.

A simple stem necessarily indicates an original meaning, but a stem can be and habitually is used for indicating a modification of an original meaning. It then naturally becomes a compound stem, *i.e.*, made up, by the same method as that above noted, of a principal part or root and of additional parts or radical affixes, each with its own function, the root to indicate the original meaning and the affix its modification into meaning of the stem.

As all words differing in form or tone of necessity fulfil functions and belong to classes, they must possess a nature, *i.e.*, qualities inherent in themselves, and these, in all languages using such words, are indicated by the addition of qualitative affixes or by the tones in which they are spoken.

Every affix is of necessity fixed into the midst of, or prefixed or suffixed to, a root, stem or word, the affixing being naturally effected in full or in a varied form. Whenever there is variation of form amounting to material change, there is necessarily inflexion, or inseparability of the affixes. Inflexion can therefore be made to fulfil all the functions of affixes, and inflected words to conform to particular kinds of inflexion, in order to indicate function and class: and as tone can be equally made to indicate the functions and classes of words, it takes the place of inflexion.

Words are therefore made to fulfil their functions merely by the tone in which they are spoken, or by an external development effected by affixes, and to express modifications of their original meaning by a similar use of tones or of internal development. In both cases the affixes are prefixes, infixes or suffixes affixed in full or varied form or by inflexion. All languages, using variation of form for causing the components of sentences, *i.e.*, words, to fulfil their functions, adopt one or other or all the above methods of effecting the variation.

Therefore in all speech, communication expressed in a sentence is rendered complete by the combination of the meaning of its components with their position, tones or forms, or with position combined with form or tone.

The methods adopted in developing the sentence, *i. e.*, the unit of speech itself, are found to entirely govern those adopted in its further development into a language or variety of speech.

Languages differ naturally in the position of their words in the sentence, or in their forms or tones, or in the combination of position with form or tone. Thus are set up naturally two primary classes of languages:—Syntactical Languages, which express complete communication by the position, and Formative Languages, which express it by the forms of their words.

As position alone or combined with tone can fulfil all the functions of speech, the Syntactical Languages employ one or both of these methods, and thus are created respectively Analytical Languages and Tonic Languages.

Again, as in speech, variety of form is secured by affixes attached to words in an unaltered or an altered form. Formative Languages necessarily divide themselves into Agglutinative Languages, attaching affixes in an unaltered form, and Synthetic Languages, attaching them in an altered form. These two classes are both further naturally divisible into (1) Premutative, (2) Intromutative, (3) Postmutative Languages, according as they attach affixes as prefixes, infixes or suffixes.

In obedience to a fundamental Law of Nature, no language has ever developed along a single line, and therefore every language belongs of necessity primarily to one of the above classes, and secondarily to others, by partial adoption of their methods.

Languages, varying the form, tones or position, without varying the meanings of their words, form naturally Connected Languages in the relation of parent and offshoot. Connected Languages, whose stems, *i.e.*, the meanings of whose words, are common to all, form a natural Group of Languages, and those Connected Languages, whose roots, *i. e.*, the original meanings of whose words, are common to all, form a natural Family of Languages. Therefore also of necessity all Connected Languages belonging to a Group belong to the same Family.

As the above method of expounding the Theory involves the use of unfamiliar terms, it is as well to state that the new and the old terms of Grammar roughly, though not exactly, correspond as follow; it being remembered that the old terms are themselves the outcome of another tacit Theory, based upon other observations of natural laws or phenomena.

TABLE OF COMPARATIVE GRAMMATICAL TERMS.

Old.	New.
Noun.	Indicator.
Adjective.	Explicator.
Verb.	Predicator.
Adverbs of different classes.	Illustrator. / Introducer.
Preposition. / Postposition. / Conjunction.	Connector.
Interjection.	Integer.
Pronoun. / Relative Adverb. / Relative Particle.	Referent Substitute.
Gender, Number, Case. / Declension. / Person, Mood, Tense. / Conjugation.	Inflexion of different kinds.
Concord, Agreement. / Government.	Correlated Variation. / Intimate Relation.

The two following diagrams will serve to explain the lines upon which the Theory works itself out:—

DIAGRAM I.

Principle of the Development of the Sentence out of its Components.

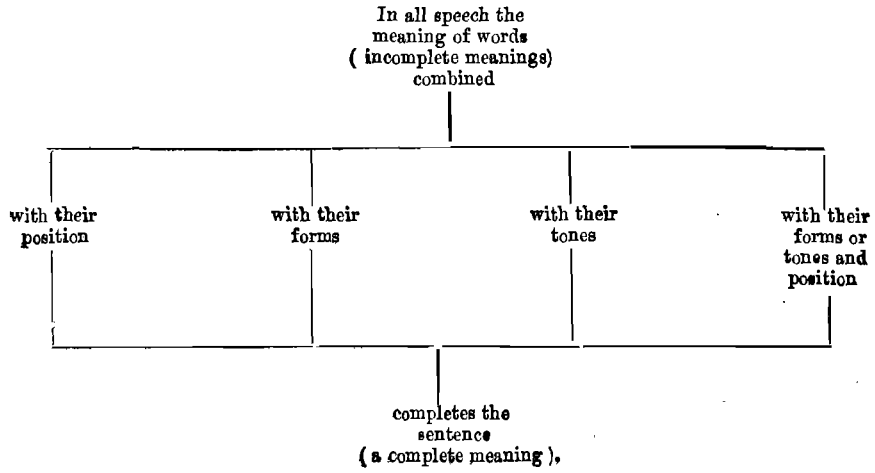
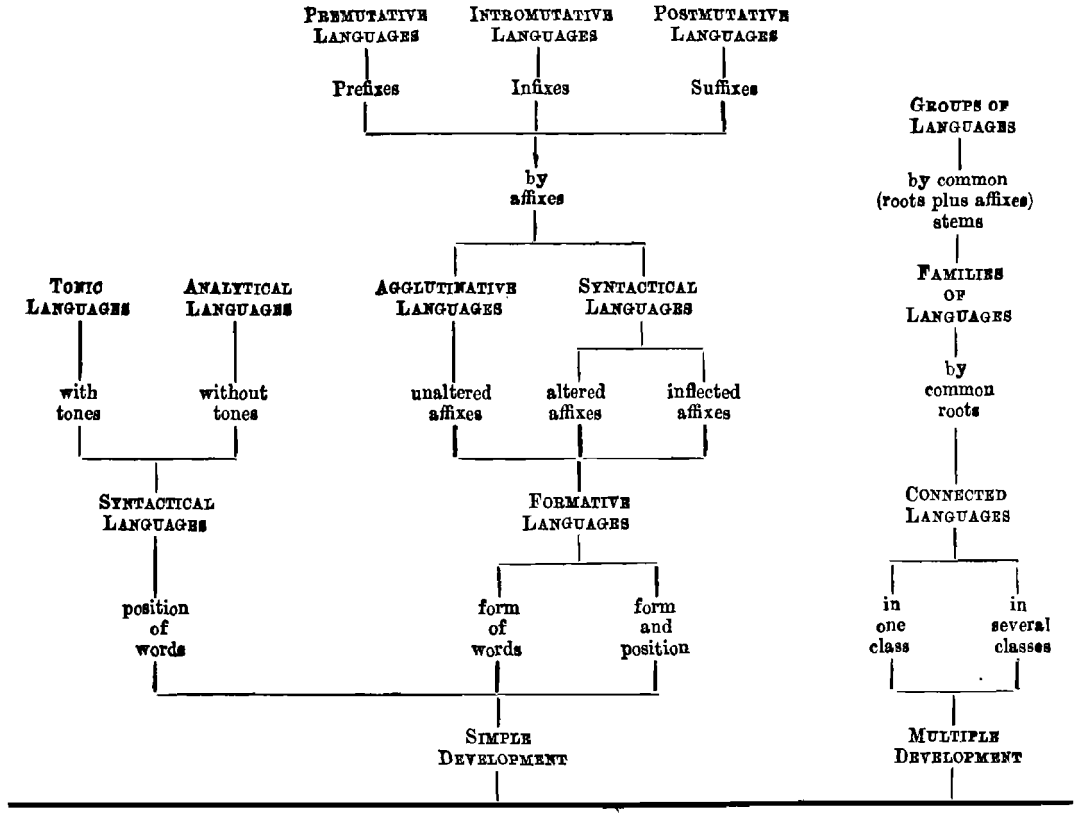
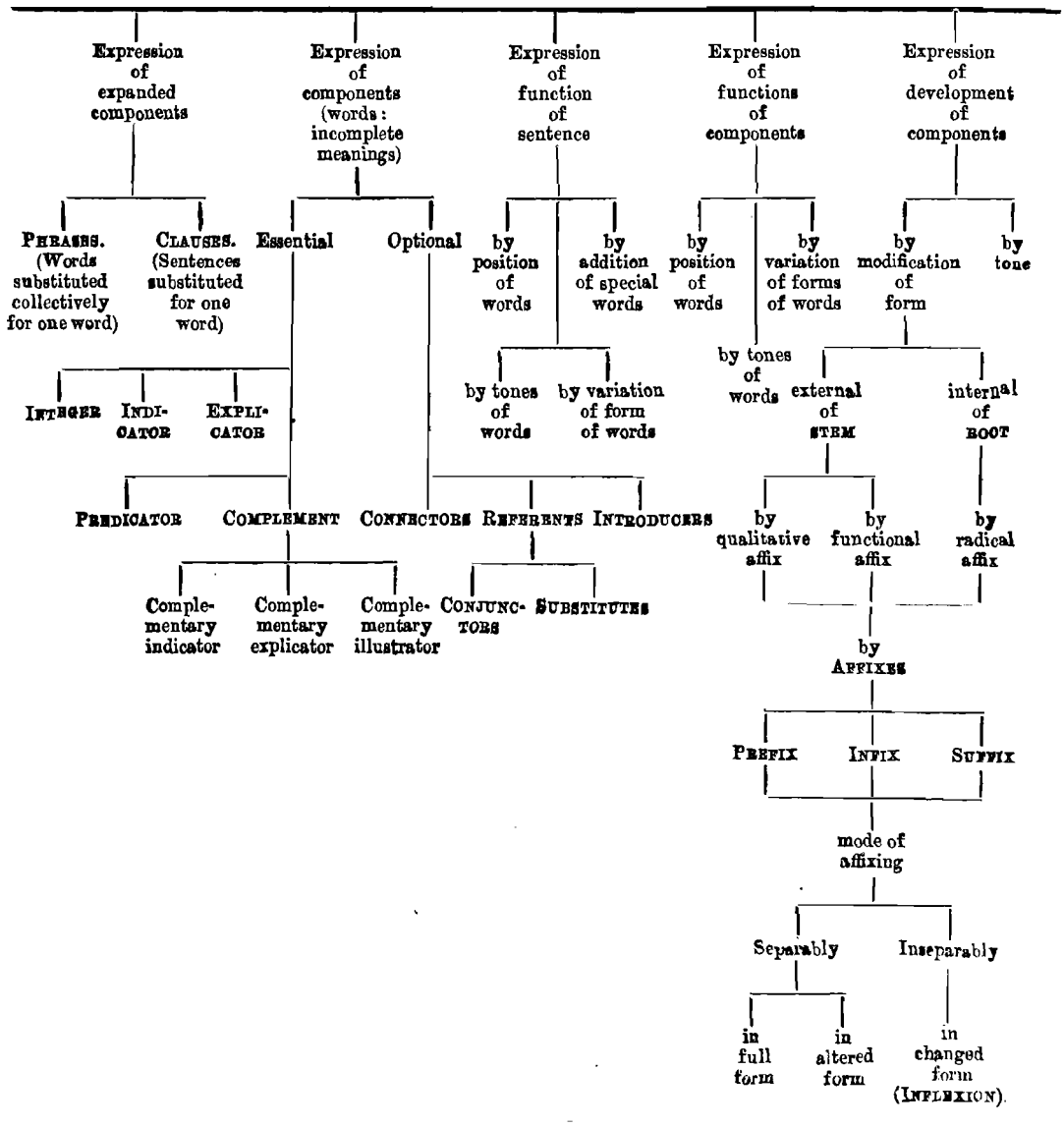


DIAGRAM II.

Development of the sentence or complete meaning, upwards into languages. downwards into its components.



SENTENCE (*expression of a complete meaning*).



Position of the Andamanese Languages in the General Scheme.—The next point for consideration is: Where do the Andamanese Languages come into the general scheme? This will be shown in the following general account of them, and as the grammatical terms used will be novel to the reader, the corresponding familiar terms will be inserted beside them in brackets, wherever necessary to make the statements clear in a familiar manner. Diacritical marks will only be used when necessary to the elucidation of the text.

Examples of Sentences of One Word.—The Andamanese Languages are rich in integer words, which are sentences in themselves, because they express a complete meaning. The following examples are culled from Portman's lists:—

TABLE OF INTEGER WORDS.

English	Bea	Balawa	Bojigyab	Juwai
Hurrah.	Yui	Yui	Yui	Yui
I don't know.	Uchin	Maka	Konkete	Koien
Very well: go (with a lift of the chin).	Uchik	Kobaie	Kōī	Kōī
Humbug.	Akanoiyadake	Akanoiyadake	Omkotichwake	Okamkoti-chwachin.
Oh: I say (ironical).	Betek ...	Ya ...	Kalaiītata / Kalat	Yokokene
It's broken.	Turushno	Turuit	Turush	T'ruish
Back me up. Say 'yes.'	Jegô ...	Jegô	Jeklungi	Atokwe
Not exactly.	Kak	Kak	Kaka	Alö
Nonsense.	Cho	Ya	Aikut	Kene
Yes (ironical).	Wai (drawled)	Wai (drawled)	Köle	K'le
What a stink.	Chunye	Chunye	Chunyeno	Chunye
How sweet (smell, with a puffing out of the lips).	Pue	Pue	Pue	Pue
It hurts.	Eyi	Yi	Yi (drawled)	Eyô (indignantly).
Oh (shock).	Yite (with a gasp)	Yite	Yite	Jite
Don't worry.	Ijiyomaingata	Idiyomaingata	Iramyolano	Remjolokne
What? Where?	Ten?	Tan?	Ilekot?	Alech?
Is it so?	An wai?	An yatya?	En köle?	An k'le?
Lor.	Kakatek	Kakate	Keleba	Alöbai

Elliptical Speech.—Portman's *Vocabulary* shows that the habit of speaking by integers, *i.e.*, single words, or by extremely elliptical phrases is carried very far in Andamanese, and the *Fire Legends* themselves give the clearest instances of it, as these Legends have been recorded by Portman.

The Bea version winds up with the enigmatic single word "Tomolola," which has to be translated by "they, the ancestors, were the Tomolola." In the Kol version occurs the single-word sentence "Kôlotatke," *lit.*, "Kôlotat-ke," which has to be translated: "Now there was one Kôlotat." In the first instance, one word in the indicator (noun) form completes the whole sense; in the second, one word in the predicator (verb) form does so. Such elliptical expressions as the above and as the term of abuse, "*Ngabgórob*" (*ng* + *ab* + *górob*, you + special—radical—prefix + spine), would be accompanied by tone, manner, or gesture to explain its meaning to the listener. Thus, the latter would be made to convey "You humpback," or "Break your spine," by the accompanying manner.

Portman's Fire Legend in the Bea Version Dissected to Illustrate Grammar.—The Andamanese sentence, when it gets beyond an exclamation or one word, is capable of clear division into subject and predicate, as can be seen by an analysis of the sentences in a genuine specimen of the speech, Portman's "Fire Legend" in the five languages of the South Andaman (Bojigngiji) Group. In the Bea Language it runs thus:—

BEA VERSION OF THE FIRE LEGEND.

Tôl-l'oko-tima-len	*Puluga-la*	*mami—ka.*	*Luratut-la*	*chapa*	*tap—nga*	*omo—re.*
(a Place)———in	God	asleep—was.	(a Bird)	fire	steal-ing	bring-did.

chapa-la	*Puluga-la*	*pugat—ka.*	*Puluga-la*	*boi———ka.*	*Puluga-la*	*chapa*
fire	God	burning-was.	God	awake—was.	God	fire

eni———ka.	*a*	*ik*	*chapa-lik*	*Luratut*	*l'ot-pugari-re.*	*jek*	*Luratut-la*
seizing—was.	he	taking	fire—by	(Bird)	burn—t.	at-once	(Bird)

eni———ka.	*ai—Tarcheker*	*l'ot-pugari-re.*	*Wota-Emi-baraij—len*	*Chauga-tabanga*
taking—was.	he (a Bird)	burn—t.	Wota-Emi-village-in	The—ancestors

oko—dol-re.	*Tomolola.*
made-fires.	Tomolola.

Portman's Rendering.—God was sleeping at Tôl-l'okotima. Luratut came, stealing fire. The fire burnt God. God woke up. God seized the fire; He took the fire and burnt Luratut with it. Then Luratut took (the fire;) he burnt Tarcheker in Wota-Emi village, (where then) the Ancestors lit fires. (The Ancestors referred to were) the Tomolola.

Subject and Predicate.—Taking this Legend, sentence by sentence, the subject and predicate come out clearly thus:—(P=predicate: S=subject.)

(1) Tôllokotimalen (P) Pulugala (S) mamika (P.).
(2) Luratutla (S) chapatapnga (S) omore (P).
(3) Chapala (S) Pulugala (P) pugatka (P).
(4) Pulugala (S) boika (P).
(5) Pulugala (S) chapa (P) enika (P).
(6) A (S) ik (S) chapalik (P) Luratut (P) lotpugarire (P).
(7) Jek (P) Luratutla (S) enika (P).
(8) A (S) Itarcheker (P) lotpugarire (P).
(9) Wota-Emi-baraijlen (P) Chauga-tabanga (S) okodalre (P).
(10) Tomolola (S) (P. unexpressed).

Principal and Subordinate Words.—That the words in the above sentences are in the relation of principal and subordinate is equally clear; thus:—

(1) In the Predicate, *Tôllokotimalen* is subordinate to the principal *mamika.*
(2) In the Subject, *Luratutla* is the principal with its subordinate *chapatapnga.*
(5) In the Predicate, *chapa* is subordinate to the principal *enika.*
And so on, without presentation of any difficulties.

Functions of Words.—The next stage in analysis is to examine the functions of the words used in the above sentences, and for this purpose the following abbreviations will be used:—

ABBREVIATIONS USED.

int.	integer.
in.	indicator.
e.	explicator.
p.	predicator.
ill.	illustrator.
c.	connector.
intd.	introducer.
r. c.	referent conjunctor.
r. s.	referent substitute.
c. in	complementary indicator.
c. e.	complementary explicator.
c. ill.	complementary illustrator.

In this view the sentences can be analysed thus:—

(1) Tôll'okotimalen (ill. of P.) Pulugala (in.) mamika (p.).
(2) Luratutla (in.)—chapa—(c. in.) -tapnga (p., the whole an e. phrase) omore (p.).
(3) Chapala (in.) Pulugala (c. in.) pugatka (p.).
(4) Pulugala (in.) boika (p.).
(5) Pulugala (in.) chapa (c. in.) enika (p.).
(6) A (r. s., in.) ik (e.) chapalik (ill.) Luratut (c. in.) l'otpugarire (p.).
(7) Jek (r. c.) Luratutla (in.) enika (p.).
(8) A (r. s., in.) Itarcheke (c. in) l'otpugarire (p).
(9) Wota-Emi-baraijlen (ill. phrase of P.) chaugatabanga (in. phrase) okodalre (p.).
(10) Tomolola (in., P. unexpressed).

Order of Sentence.—By this analysis we arrive at the following facts. The purpose of all the sentences is information, and the Andamanese indicate that purpose, which is perhaps the commonest of speech, by the order of the words in the sentence thus:—

(1) Subject before Predicate:
Pulugala (S.) boika (P.).

(2) Subject, Complement (object), Predicate:
Pulugala (S.) chapa (c. in.) enika (P.).
(3) Indicator (noun) before explicator (adjective):
Luratutla (in.) chapa-tapnga (e. phrase) omore (p.).
(4) Illustrator of Predicate (adverb) before Subject:
Tôl!'okotimalen (ill. of P.) Pulugala (in.) mamika (p.).
But illustrators can be placed elsewhere,* thus:
A (r. s. used as in.) ik (p. of elliptic e. phrase, c. in. unexpressed) chapalik (ill.) Luratut (c. in.) l'o'pugarire (p.).
(5) Referent conjunctor (conjunction) commences sentence:
Jek (r. c.) Luratutla (in.) enika (p.).
(6) Referent substitutes (pronouns) follow position of the originals:
A (r. s. in.) Itarcheke (c. in.) l'otpugarire (p.).

From these examples, which cover the whole of the kinds of words used in the sentence, except the introducers and connectors, the absence of which is remarkable, we get the following as the order of Andamanese speech:—

A. (1) Subject (2) Predicate.
B. (1) Subject (2) Complement (object) (3) Predicate.
C. (1) Indicator (noun) before its explicator (adjective).
D. Illustrator (adverb) where convenient.
E. Referent conjunctors (conjunctions) before everything in connected sentences.

We have also a fine example of an extremely elliptical form of speech in the wind-up of the story by the one word "Tomolola" as its last sentence, in the sense "(the ancestors who did this were the) Tomolola." *Jek Luratutla enika* is also elliptic, as the complement is unexpressed.

Order of Connected Sentences.—Connected sentences are used in the order of principal and then subordinate:

Pulugala chapa enika (principal sentence) and then *a ik chapalik Luratut l'otpugarire* (subordinate sentence), after which *jek Luratutla enika* (connected sentence) joined by "*jek* at once"), and then *a Itarcheker l'otpugarire* (subordinate to the previous sentence).

The sentences quoted show that the Andamanese mind works in its speech steadily from point to point in a natural order of precedence in the development of an information (story, tale), and not in an inverted order, as does that of the speakers of many languages.

Interrogative Sentences.—It may also be noted here, though no interrogatory phrases occur in the Fire Legend, that the Andamanese convey interrogation by introducers (adverbs) always placed at the commencement of a sentence or connected sentences.

The introducers of interrogation in Bea are *Ba*? and *An*? And so, too, "Is————? or ————?" are introduced by "*An*————? *an*———— ?" Either these introducers are used, or an interrogative sentence begins with a special introducer, like "*Ten*? Where? *Micihba*? What? *Majoḷa*, or *Mija*? Who?" and so on.

The Mode of Expressing the Functions and the Inter-relation of Words.—But the Andamanese do not rely entirely on position to express the function of the sentence and the functions and inter-relation of its words. By varying the ends of their words, they express the functions of such sentences as convey information, and at the same time the functions of the words composing them.

Thus, the final form of *Pulugala, Luratutla, chapala, Tomolola* proclaim them to be indicators (nouns): of *mamika, boika, pugatka, omore, okodalre, l'otpugarire* to be predicators (verbs): of *chapa-tapnga* (phrase) to be an explicator (adjective): of *Tôll'okotimalen* (phrase), *chapalik, Wota-Emi-baraijilen* (phrase) to be illustrators (adverbs).

Expression of Intimate Relation.—The intimate Relation between words is expressed by change of form at the *commencement* of the latter of them.

Thus in *Luratut* (c. in.) *l'otpugarire* (p.), where *Luratut* is the complement (object) and *l'otpugarire* is the predicator (verb), the intimate relation between them is expressed by the *l'* of *l'otpugarire*. So again in *Itarcheker l'otpugarire*.

* We have this in English:—"Suddenly John died; John suddenly died; John died suddenly."

In phrases, or words that are fundamentally phrases, the same method of intimately joining them is adopted.

Thus *Tôl-l'oko-tima-len* means in practice "in Tôll'okotima," a place so named, but fundamentally

Tôl———l'———okotima-len
Tol (tree)———(its)———corner—in

means "in (the encampment at, unexpressed) the corner of the Tol (trees, unexpressed)." Here the intimate relation between *tôl* and *okotima* is expressed by the intervening *l'*.

The actual use of the phrases is precisely that of the words they represent. Thus—

Wota—Emi—baraij——len
Wota—Emi—village——in

Here a phrase, consisting of three indicators (nouns) placed in juxtaposition, is used as one illustrator word (adverb).

Use of the Affixes; Prefixes, Infixes, Suffixes.—It follows from what has been above said that the Adamanese partly make words fulfil their functions by varying their forms by means of affixes.

Thus they use suffixes to indicate the class of a word, *e. g., ka, re,* to indicate predicators (verbs): *la, da,* for indicators (nouns): *nga* for explicators (adj.): *len, lik* for illustrators (adverbs). They use prefixes, *e.g., l'*, to indicate intimate relation, and infixes for joining up phrases into compound words, based on the prefix *l'*.

It also follows that their functional affixes are prefixes, infixes and suffixes.

It is further clear that they effect the transfer of a word from class to class by means of suffixes.

Thus, the compound indicator (noun) *Tôll'okotima* is transferred to illustrator (adverb) by suffixing *len*: indicator (noun) *chapa* to illustrator (adverb) by suffixing *lik*: indicator (noun) phrase *Wota-Emi-baraij* to illustrator (adverb) by suffixing *len*: predicator (verb) *tap* (*-ke, -ka, -re*) to explicator (adj.) by suffixing *nga*.

A very strong instance of the power of a suffix to transfer a word from one class to another occurs in the Kol version of the Fire Legend, where *Kôlotat-ke* occurs, Kôlotat being a man's name and therefore an indicator (noun), transferred to the predicator (verb) class by merely affixing the suffix of that class. The word *Kôlotatke* in the Kol version of the Fire Legend occurs as a sentence by itself in the sense of "now, there was one Kôlotat."

Differentiation of the Meanings of Connected Words by Radical Prefixes.—Fortunately in the sentences under examination, two words occur, which exhibit the next point of analysis for elucidation. These are:—

chapala Pulugala pugat——ka
fire God burning-was

and then

a Itarcheker l'otpugari-re
he (a Bird) burn———t
a ik chapa-lik Luratut l'otpugari-re
he taking fire——by (Bird) burn———t

Here is an instance of connected words, one of which is differentiated in meaning from the other by the affix *ot*, prefixed to that part which denotes the original meaning or root (*pugat, pugari*) of both. Therefore, in Andamanese the use of radical prefixes (prefixes to root) is to differentiate connected words.

The simple stem in the above instances is *pugat* and the connected compound stem *otpugari*. Similarly *okotima, okodalre,* occurring in the Fire Legend, are compound stems, where the roots are *tima* and *dal*.

Indication of the Classes of Words: Qualitative Suffixes.—The last point in this analysis is that the words are made to indicate their class, *i.e.*, their nature (original idea conveyed by a word) by the Andamanese by affixing qualitative suffixes, thus:

ka, re to indicate the predicator class (verbs): *nga,* to indicate the explicator (adj.) class: *la, da* to indicate the indicator (noun) class: *lik, len,* to indicate the illustrator (adverb) class.

Composition of the Words.—The words in the sentences under consideration can thus be broken up into their constituents as follows:—

Using the abbreviations R.=Root : S.=Stem : P. F.=prefix, functional : P. R.=prefix, radical : I.=Infix : S. F.=suffix, functional : S. Q.=suffix, qualitative.

(1) Mami (S.)—ka (S. Q). So also pugat-ka, boi-ka, emi-ka.
sleeping——was.

(2) Chapa (S.).
fire.

(3) Tap (S.)—nga (S. Q.).
steal——-ing.

(4) Omo (S.)—re (S. Q).
bring——did.

(5) Chapa (S.)—la (S. Q.).
fire—(honorific suff.).

(6) A (S.).
he.

(7) Ik (S.).
tak—(ing).

(8) Chapa (S.)—lik (S. F.).
fire————by.

(9) l' (P. F.) ot (P. R.) pugari (R.)—re (S. Q.).
(referent prefixes)———burn———t.

(10) Jek (S).
at-once.

(11) Baraij (S.)—len (S. F.).
village——-in.

(12) Oko (P. R.)—dal (R.)—re (S. Q.).
—fire———(light)—did.

The Agglutinative Principle.—Words are, therefore, made to fulfil their functions in the Andamanese Languages by an external development effected by affixes, and to express modifications of their original meanings by a similar internal development. Also, the meaning of the sentences is rendered complete by a combination of the meanings of their component words with their position and form.

The sentences analysed further show that the Languages express a complete communication chiefly by the forms of their words, and so these languages are Formative Languages; and because their affixes, as will have been seen above, are attached to roots, stems and words mainly in an unaltered form, the languages are Agglutinative Languages. It will be seen later on, too, as a matter of great philological interest, that the Languages possess premutation (principle of affixing prefixes) and postmutation (principle of affixing suffixes) in almost equal development: intro-mutation (principle of affixing infixes) being merely rudimentary.

Identity of the Five Languages of the Southern Group of Tribes.—The above observations, being the outcome of the examination of the ten sentences under analysis, are based only on the Bea speech, but in Appendix C will be found a similar analysis of the sentences conveying the Fire Legend in the five South Andaman Languages (Bojigngiji Group), which fully bears out all that has been above said. And from this Appendix is here attached a series of Tables, showing roughly how these Languages agree and differ in the essentials of word-building, premising that they all agree in Syntax, or sentence-building, exactly. An examination of the Tables goes far to show that the Andamanese Languages must belong to one Family.

COMPARATIVE TABLES OF ROOTS AND STEMS OF THE SAME MEANING OCCURRING IN THE FIRE LEGEND.

English	Bea	Balawa	Bojigyab	Juwai	Kol
		Indicators (nouns).			
camp	baraij	baroij	...	...	pôroich
fire	chapa	choapa	at	at	at

Predicators (verbs).

English	Bea	Balawa	Bojigyab	Juwai	Kol
seize	eni	ena	di, li	...	...
take	ik	ik	ik	...	...
light-a-fire	dal	dal	kadak	kôdak	kôdak
sleep	mami	...	pat	ema	pat
steal	tap	...	...	top	...
bring	omo	omo	lechi	...	...
burn	pugat, pugari	puguru	...	...	...
wake	boi	...	konyi	...	...

Referent Substitutes (pronouns).

he	a	i, ong	ong	a	...
(they)	...	ongot	n'ong	...	n'a

COMPARATIVE TABLE OF AFFIXES OCCURRING IN THE FIRE LEGEND.

English	Bea	Balawa	Bojigyab	Juwai	Kol
		Prefixes, functional, of intimate relation.			
(hi-, it-)-s	l'-	l'-	l'-	l'-, t'-	l'-
(hi-, it-)-s	...	...	k'-	...	k'-
(their-)-s	...	...	n'-	...	n'-
		Prefixes, radical.			
...	ot-	oto-	oto-	...	otam-, ote-
...	...	atak-	...	atak-	...
...	oko-	oko-	oko-	ôkô-, ôko-	oko-
...	...	...	o-	...	a-
...	...	ar-	...	...	ir-, iram-
...	i-	ī-	...	...	...
...	...	ong-	...	on-	...
		Suffixes, functional.			
by	-lik	-te	-ke	...	-lak
in	-len	-a	-in, -an, -en	-in	-en
to	...	...	-len	-lin	-kete
		Suffixes, qualitative.			
was	-ka	-kate, -ia	...	-chike	-ke
-ing	-nga	-nga	-nga	...	...
did	-re	-t, -te	-ye, -an	-t	-an, -chine
(hon. of in.)	-la, -ola	-le	-la	...	-la

Many further proofs of the existence of the Andamanese Languages as a Family, subdivided into three main Groups, will be found later on in considering that great difficulty of the Languages, the use of the prefixes, and it will be sufficient here to further illustrate the differences and agreements between those of the South Andaman Group by a comparison of the roots of the words for the parts of the human body, a set of words which looms preponderatingly before the Andamanese mental vision.

COMPARATIVE TABLE OF ROOTS AND STEMS DENOTING PARTS OF THE HUMAN BODY.

English	Bea	Balawa	Bojigyab	Juwai	Kol
head	cheta	chekta	ta	tô	toi
brains	mun	mun	mine	mine	mine
neck	longota	longato	longe	longe	longe
heart	kuktabana	kuktabana	kapöne	poktô	poktoi
hand	kôro	kôro	kôre	korô	kôre
wrist	tango	tango	to	to	to
knuckle	kutur	godla	kutar	kutar	kutar
nail	bodo	bôdo	pute	pute	pute
foot	pag	pog	ta	tok	tok
ankle	togur	tôgar	togar	togar	togar
mouth	bang	boang	pong	pong	pong
chin	ada	koada	teri	t'reye	t'reye
tongue	etal	atal	tatal	tatal	tätal

English	Bea	Balawa	Bojigyab	Juwai	Kol
jawbone	ekib	toa	ta	tô	teip
lip	pe	pa	pai	paka	pake
shoulder	pôdikma	pôdiatoa	bea	bea	bein
thigh	paicha	poaicho	baichato	boichatokan	baichetökan
knee	lo	lo	lu	lu	lu
shin	chalta	chalanta	chalta	cholto	chaltô
belly	jodo	jôdo	chute	chute	chute
navel	er	akar	tar	takar	takar
armpit	auwa	ôkar	kôrting	kôrteng	kôrteng
eye	dal	dal	kôdak	kôdag	kôdak
eyebrow	punur	punu	bein	beakaiñ	beakiñ
forehead	mugu	mugu	mike	mike	mike
ear	puku	puku	bo	bôkô	bokô
nose	chôronga	chôronga	kôte	kôte	kôte
cheek	ab	koab	kap	kap	kap
arm	gud	gud	kit	kit	kit
breast	kam	koam	kôme	kôme	kôme
spine	gôrob	kategôrob	kinab	kurup	kurup
leg	chag	chag	chok	chok	chok
buttocks	dama	doamo	tome	tome	tome
arms	tomur	bang	tomur	kôlang	kôlang

Pulled to pieces, Andamanese words of any Group of the Languages seem to be practically the same, but this fact is not apparent in actual speech, when they are given in full with their appropriate affixes, thus—

English	Bea	Balawa	Bojigyab	Juwai	Kol
head	otchetada	ôtchekta	otetada	ôtotôlekile	ôtetoiche
knee	abloda	ablo	abluda	alulekile	oluche
forehead	igmuguda	idmugu	irmikeda	remilekile	ermikeche

Any one who has had practice in listening to a foreign and partially understood tongue knows how a small difference in pronunciation, or even in accentuation, will render unintelligible words philologically immediately recognisable on paper.

III. Etymology.

The Use of the Roots.—As the Andamanese usually build up the full words of their sentences by the simple agglutination of affixes on to roots and stems, the word construction of their language would present no difficulties were it not for one peculiarity, most interesting in itself and easy of general explanation, though difficult in the extreme to discover: *experto crede.*

The Andamanese suffixes perform the ordinary functions of their kind in all agglutinative languages, and the peculiarity of the infixed *l'* occurring in compound words depends on the prefixes. It is the prefixes and their use that demand an extended examination.

Anthropomorphism Colours the whole Linguistic System.—To Andamanese instinct or feeling, words as original meanings, *i.e.*, roots, divide themselves roughly into Five Groups, denoting—

(1) mankind and parts of his body (nouns):
(2) other natural objects (nouns):
(3) ideas relating to objects (adj., verbs):
(4) reference to objects (pronouns):
(5) ideas relating to the ideas about objects (adv., connecting words, Proper Names).

The instinct of the Andamanese next exhibits an intense anthropomorphism, as it leads them to differentiate the words in the First Group, *i.e.*, those relating directly to themselves, from all others, by adding special prefixes through mere agglutination to their roots.

The Use of the Prefixes to the Roots.—These special radical prefixes by, some process of reasoning forgotten by the people and now obscure, but not at all in every case irrecoverable, divide the parts of the human body into Six Classes, thus, without giving a full list of the words in each class :—

RADICAL PREFIXES IN WORDS DENOTING PARTS OF THE HUMAN BODY BY CLASSES.

Class	English	Bea	Balawa	Bojigyab	Juwai	Kol
I	Head, Brains, Neck, Heart	ot–	ôt–	ote–	ôto–	ôto–
II	Hand, Wrist, Knuckle, Nail, Foot, Ankle	on–	ong–	ong–	ôn–	ôn–
III	Mouth, Chin, Tongue, Jawbone, Lip	akan– aka– ôkô–	aka– ôkô–	o–	ôkô–	o–
IV	Shoulder, Thigh, Knee, Shin, Belly, Navel, Armpit	ab–	ab–	ab–	a–	o–
V	Eye, Eyebrow, Forehead, Ear, Nose, Cheek, Arm, Breech	i– ik–, ig– i–	id–	ir–	re–	er–
VI	Spine, Leg, Buttock, Arms	ar–	ar–	ar–	ra–	a–

Prefixes to Words referring to the Human Body.—Next, in obedience to their strong anthropomorphic instinct, the Andamanese extend their prefixes to all words in the other Groups, when in relation to the human body, its parts, attributes and necessities, and thus in practice refer all words, capable of such reference, to themselves by means of prefixes added to their roots. In an Andamanese Language one cannot, as a matter of fact, say "head," "hand," "heart;" one can only say—

my, your, his, (so and so) —'s, (that one) —'s, (this one) —'s } head, hand, heart.

The Prefixes of Intimate Relation.—It is thus that the otherwise extremely difficult secondary functional prefix (always prefixed to the radical prefix, which is usually in Bojigngiji *le–* or *la–*, but practically always used in its curtailed form *l'–*, or *k'–*, *n'–*, *t'–* in certain circumstances) is clearly explainable. It is used to denote intimate relation between two words; and when between two indicators (nouns) it corresponds to the English connector (of), the Persian *izafat* (*–i–*), and so on, and to the suffix denoting the "genitive case" in the inflected languages. The Andamanese also use it to indicate intimate relation between predicator (verb) and complement (object), when it corresponds to the suffix of the "accusative case" in the inflected languages, and indeed to cases generally.

The Prefix System.—Starting with these general principles, the Andamanese have developed a complicated system of prefixes, making their language an intricate and difficult one for a foreigner to clearly apprehend when spoken to, or to speak so as to be readily understood.

As examples of this, let us take the stem *beri-nga* good: then *a-beri-nga*, good (human being); *un-beri-nga* (good hand, *on* pref. of hand), clever; *ig-beri-nga* (good eye, *ik* pref. of

eye), sharp-sighted; *aka-beri-nga* (good mouth or tongue, *aka* pref. of mouth and tongue), clever at (other Andamanese) languages; *ot-beri-nga* (good head and heart, *ot* pref. of both head and heart), virtuous; *un-t'ig-beri-nga* (good hand and eye, *on* pref. of hand, *ig* pref. of eye, joined by *t'* pref. of intimate relation), good all round.

So, too, with *jabag*, bad: *ab-jabag*, bad (human being); *un-jabag*, stupid; *ig-jabag*, dull-sighted; *aka-jabag*, stupid at (other Andamanese) languages; *ot-jabag*, vicious; *un-t'-ig-jabag*, a duffer.

So again with *lama*, failing: *un-lama* (failing hand or foot), missing to strike; *ig-lama* (failing eye), failing to find; *ot-lama* (failing head), wanting in sense; *aka-lama* (failing tongue), using a wrong word.

Lastly, in the elliptic speech of the Andamanese, the root, when evident, can be left unexpressed, if the prefix is sufficient to express the sense, thus—

i-beri-nga-da! *may* mean, "his-(face, pref. *i*-)-good-(is)." That is, "he is good-looking!".

d'-aka-cham-ke! *may* mean "my-(mouth, pref. *aka*)-sore-is." That is, "my mouth is sore!".

Prefixes to Words Relating to Objects.—The system of using radical prefixes to express the relation of ideas to mankind and its body is extended to express the relation of ideas to objects in general. Thus—

ad-beringa, well (*i. e.*, not sick): *ad-jabag*, ill (*i. e.*, not well): *oko-lama* (applied to a weapon), failing to penetrate the object struck through the fault of the striker. So *ig-beringa* means pretty (of things): *aka-beringa*, nice (to taste): all in addition to the senses above given.

This is carried, with more or less obvious reference to origin, throughout the language. Thus—

In Bea: *yop*, pliable, soft. Then a cushion or sponge is *ot-yop*, soft: a cane is *ôto-yop*, pliable: a stick or pencil is *aka-yop*, or *ôko-yop*, pointed: the human body is *ab-yop*, soft: Class II of its parts (hand, wrist, etc.,) are *ong-yop*, soft: fallen trees are *ar-yop*, rotten: an adze is *ig-yop*, blunt.

So again, in Bea: *chôrognga*, tying up, (whence also that which is usually tied up in a bundle, *viz.*, a bundle of plantains, faggots). Then *ôt-chôrognga* is tying up a pig's carcase: *aka-chôrognga*, tying up jack-fruit: *ar-chôrognga*, tying up birds: *ong-chôrognga*, tying up the feet of sucking pigs.

General Sense of Prefixes to Roots.—Possibly the feeling or instinct, which prompts the use of the prefixes correctly, could be caught up by a foreigner, just as the Andamanese roots might be traced by a sufficiently patient etymologist, but it would be very difficult and would require deep study. The Andamanese themselves, however, unerringly apply them without hesitation, even in the case of such novel objects to them as cushions, sponges and pencils; using *ot* in the two former cases, because they are round and globular, and *aka* in the latter, because they are rounded off to an end. In both these cases one can detect an echo of the application of the prefixes to the body: *ot* of head, neck, heart, etc.; *aka* of tongue, chin, etc.

Portman gives somewhat doubtfully the following as the concrete modifying references of such prefixes to the names of things:—

ot-	round things.
ôto-	long, thin, pointed, or wooden things.
aka-, ôko-	hard things.
ar-	upright things.
ig-	weapons, utensils, things manufactured.
ad-	speech (noises) of animals.

With this habit may be compared the use of numeral co-efficients in Burmese and many other languages.

From Portman also may be abstracted, doubtfully again, the following modifying abstract references of some of the radical prefixes:—

ot-, oto-,ôto-	special relation.
ig-, ik-, i-	reference in singular to another person.
iji-	reference in plural to other persons.
eb-, ep-	reference to ideas.
akan-	reference to self.
ar-, ara-	plural reference to persons generally.
ar-, ara-	(also) agency.
ad-	action of self.
ab-	action or condition transferred to another in singular.
oiyo-	action transferred to others in plural

The following preliminary statement of the function of the radical prefixes can, therefore, be made out, *viz.*, to modify the meanings of roots by denoting—

(1) the phenomena of man and parts of his body :
(2) the phenomena of objects :
(3) the relation of ideas to the human body and objects :
(4) reference to self :
(5) reference to other persons :
(6) ideas ; *i. e.*, (*a*) actions of self, (*b*) actions transferred to others, (*c*) actions of others (agency) :
(7) reference to ideas.

The Use of the "Personal Pronouns."—The habit of the Andamanese of referring everything directly to themselves makes the use of the referent substitutes for their own names (personal pronouns) a prominent feature in their speech. These are in full in the Bojigngiji group as follow :—

THE "PERSONAL PRONOUNS."

English	Bea	Balawa	Bojigyab	Juwai	Kol
I	d'ol-la	d'ol	t'u-le	t'u-le	la-t'u-le
thou	ng'ol-la	ng'ol	ng'u-le	ng'a-kile	la-ng'u-le
he, she, it	ol-la	ol	u-le	a-kile	laka-u-le
we	m'oloi-chik	m'ôlo-chit	m-u-le	m'e-kile	la-m'u-le
you	ng'oloi-chik	ng'olo-chit	ng'uwe'l	ng'e'l-kile	la-ng'uwe'l
they	oloi-chik	olo-chit	n'u-le	n'e-kile	kuchla-n'u-le

Limited Pre-inflexion.—In combination with and before the radical prefixes the "personal pronouns" are abbreviated thus in all the languages of the Bojigngiji Group :—

ABBEVIATED "PRONOMINAL" FORMS.

I, my	d'– in Bea, Balawa.
	t'– in Bojigyab, Juwai, Kol.
thou, thy	ng'– in all the Group
he, his, etc.	not expressed in the Group.
we, our	m'– in all the Group.
you, your	ng'– in Bea, Balawa, Bojigyab.
	ng'————'l in Juwai, Kol.
they, their	not expressed in Bea, Balawa.
	n'– in Bojigyab, Juwai, Kol.
this, that one	k'– in Bea, Balawa, Kol.
	not expressed in Bojigyab, Juwai.
that one	t'– in all the Group.

In this way it can be shown that there are no real "singular possessives" in Andamanese, as the so-called "possessive pronouns" are merely the abbreviated forms of the "personal pronouns" plus *ia* (*–da*), etc.= belonging to, (property) thus—

"POSSESSIVE PRONOUNS."

English	Bea	Balawa	Bojigyab	Juwai	Kol
my, mine	d'ia–da	d'ege	t'iya–da	t'iyea–kile	t'iyi–che
thy, thine	ng'ia–da	ng'ege	ng'iye–da	ng'iyea–kile	ng'iye–dele
his, her, its	ia–da	ege	iye–da	eyea–kile	iye–dele

The "plural possessives" have been brought into line with the expression of plurality by radical prefixes, as will be seen later on.

Now, it is easy enough to express on paper the true nature of the above abbreviations by the use of the apostrophe, but in speech there is no distinction made. Thus, one can write "*d'un-lama-re*, I missed (my) blow," but one must say "*dunlamare*." So one can write "*ng'ot-jabag-da*, you (are a) vicious (brute)," but one must say "*ngotjabagda*." So also one can write :—

ar-tam	*d'un-t'ig-jabag-da*	*l'eda-re.*
formerly	I–hand–eye–bad.	exist-did.
achitik	*d'un–t'ig–beri-nga*	
now	I–hand–eye–good.	

(once I was a duffer, now I am good all round.)

But one must say "*artam duntigjabag ledare, achitik duntigberinga*." It would therefore be correct to assert that, though Andamanese is an agglutinative

tongue, it possesses a very limited pre-inflexion, *i.e.*, inflexion at the commencement of its words.

Limited Correlated Variation (Concord).—The Andamanese also express the intimate relation of the "personal pronouns" with their predicators (verbs) by a rudimentary correlated variation (post-inflexion in the form of concord) of forms:—Thus—

mami-ke	mamik-ka	mami-re	mami-nga
sleeping-is	sleeping-was	sleep-did	sleep-ing

Then,

do	mami-ke	I am sleeping.
da	mami-ka	I was sleeping.
da	mamire	I slept.
dona	maminga	I (me) sleeping.

This peculiarity is shown in all the Bojigngiji Group, except Kol; thus—

English	Bea	Balawa	Bojigyab	Juwai
		"In the Present Tense" (ke)		
I	do	do	tuk	te
thou	ngo	ngo	nguk	nge
he, she, it	a	ong	uk	a
we	moicho	môt	môt	me
you	ngoicho	ngôngot	nuk	ngel
they	eda	ôngot	net	a
		"In the Past Tense" (ka and re)		
I	da	do	tong	te
thou	nga	ngo	ngong	nge
he, she, it	a	ong	ong	a
we	meda	mongot	môt	me
you	ngeda	ngongot	ngonget	ngel
they	eda	ongot	net	ne
		"In the Present Participle" (nga)		
I	dona	...	tong	tôn
thou	ngôna	...	ngong	ngôn
he, she, it	oda	...	ong	ôn
we	moda	...	môt	mon
you	ngoda	...	ngowel	ngôwel
they	oda	...	nong	ne

Expression of Plurality by Radical Prefixes.—The examination of the "pronouns" shows that the Andamanese can express things taken together (plural) as well as things taken by themselves (singular). This in their language generally is expressed by changing the forms of the radical prefixes, in Bea and Balawa habitually and in Kol and Juwai occasionally. Thus—

Sing.	Plu.	Sing.	Plu.	Sing.	Plu.
			In Bea.		
ot-	otot-	ong-, on-	oiot-	ig-, ik-, i-	itig-
ab-	at-	ar-, ara-	arat-	aka-	akat-
ôto-	ôtot-	eb-	ebet-	iji-	ijit-, ijet-
ôko-	ôkot-	ad-	ad-	akan-	akan-
en-	et-				
			In Balawa.		
ôt-	ôtot-	ông-	ôngot-	id-	idit-
ap-	at-	ar-, ara-	arat-	aka-	akat-
ôto-	ôtot-	eb-	ebet-	idi-	idit-
ôko-	ôkot-	ad-	ad-	akan-	akan-
en-	et-				
			In Juwai.		
ir-	ir-	ab-	at-	iche-	iche-
iram-	iram-	in-	in-		
			In Kol.		
re-	ri-	a-	o-	eche-	iche-
rem-	rim-	en-	in-		

As has been already noted, the plural of the "personal pronouns" in the "possessive" form has been made to fall into line with the plan of expressing plurality by means of the radical prefixes. Thus—

TABLE OF SINGULAR AND PLURAL "POSSESSIVES."

	English	Bea	Balawa	Bojigyab	Juwai	Kol
Sing.	my	diada	dege	tiyeda	tiyeakile	tiyiche
Plu.	our	metat	matat	miyeda	miye	miyedele
Sing.	thy	ngiada	ngege	ngiyeda	ngiyeakile	ngiyedele
Plu.	your	ngetat	ngatat	ngiyida	ngiyel	ngiyil
Sing.	his	iada	ege	iyeda	eyeakile	iyedele
Plu.	their	etat	atat	niyeda	niye	niyiche

Qualitative Suffixes.—The suffixes of Andamanese are (radical) qualitative (expressing the class of a word), or functional (expressing its function in the sentence). The radical qualitative suffixes usually employed are—

For Indicators (nouns)

Bea	Balawa	Bojigyab	Juwai	Kol
-da	-da, -nga, -ke	-da	-lekile, -kile	-che, la
-la, -ola	-le	-le		-le
-la, -lo	-o, ô-	-o	-ö	-o
-ba				

The first of these is usually dropped in Balawa, and in all the languages also unless the word is used as an integer, or sentence in itself. The second is an honorific and is always added in full. The third is "vocative" and is suffixed to the name called out. The fourth is a negative: thus, abliga-da, a child; abliga-ba, not a child, a boy or girl.

For Explicators (adjectives)

-da	
-la	
-re	-et, -ot, -t

The second is honorific: the third applies to attributes, etc., of human beings. Generally, these affixes follow the rule for those of the indicators (nouns).

For Predicators (verbs)

English	Bea	Balawa	Bojigyab	Juwai	Kol
(kill)s	-ke, -kan	-ke, -ken	-ke, -kan	-che, -chine	-ye
was (kill)ing	-ka	-ka, -te, -kate	-ya, -ye	-chike	-ye, -k
(kill)ed	-re	-t, -et	-nga, -nen	-chikan	-an, -wan, -nen
don't (kill)	-kok	-ton	-k	-chik	-k
(kill)ing	-nga	-t, -et, -ña	-nga	...	-in
(kill)s not	-ba, -bo	-ba	-na	...	...
(kill)ed not	-ta	...	...	...	...

The last two suffixes are added to the suffix *-nga* in Bea, thus—

dona	mami-nga-bo	
I	sleep-ing-not	(I am not asleep)
dona	karama	kop-nga-ta
I	bow	cutt-ing-(was)-not (I was not making a bow).

The Functional Suffixes.—The usual functional suffixes in Andamanese are—

TABLE OF SUFFIXES.

English	Bea	Balawa	Bojigyab	Juwai	Kol
In, to, at	-len	-len, -a	-an	-an	-an
From	-tek	-te, -le	-e, -te, -le	-e, -lak	-e, -lake, -kate
To, towards	-lat	-lat	-lat	-late	-late
Of	-lia	-lege	-liye	-leye	-liye
For	-leb	-leb	-leb	-lebe	-lebe
After	-lik	-le	-le	-le	-le

The Functional Suffixes are Lost Roots—Attempt at Recovery.—It may be taken as certain that the functional suffixes are roots, now lost to Andamanese recognition, agglutinated to the ends of words by the usual means in their languages, as exhibited in the prefixes; *viz.*, by prefixing to them *l'-*, *t'-*, *k'*—in the manner already explained. The roots of some of the suffixes can be fairly made out thus, from the *Vocabularies*.

(1) *Len, kan, a, an,* "in, to, at," seem to be clearly *l'-*, *k'-* + the root *en, e, ik,* "take, hold, carry, seize."

(2) *Tek, te, le, e, lak, lake, kate,* "from" seem to be *l'–, t'–, k'–*+the root *ik, i, eak,* "take away."

(3) *Lat, late,* "to, towards," seem to be *l'–*+ the root *at, ate,* "approach."

(4) *Lia, lege, liye, leye,* "of" seem to be *l'–*+ the root *ia, ege, ii, eye,* "belonging to."

(5) *Leb, lebe,* "for" seem to be *l'–*+ a root not traced.

(6) *Lik, le,* "with, after" seem to be *l'–*+the root *ik, e, ak,* "to go with, follow on."

IV. Phonology.

The Voice of the Andamanese.—The voice of the Andamanese, though occasionally deep and hoarse, is usually pleasant and musical. The mode of speech is gentle and slow, and among the women a shrill voice is used in speaking; but though the tendency is towards a drawled pronunciation, they can express their meaning quickly enough on occasion, too quickly, indeed, for a foreigner to clearly follow the minutiæ of pronunciation without very close attention. The general tone of the voice in speaking is low.

On an examination of the prevalent vowels and vowel interchanges and tendencies in the languages of the South Andaman (Bojigngiji) Group of Tribes, as described by Portman, it may be said that they relatively speak thus from a close to an open mouth :—

Juwai	with closed lips.
Bojigyab and Kol	with flattened lips.
Balawa	with open lips.
Bea	with lips tending to open wide.

It is interesting to note that the above results carry one straight from North to South.

History of the Reduction of the Language to Writing.—The Andamanese speech, as it is now studied, was first committed to writing on a system devised by myself, which was an adaptation of the system invented by Sir William Jones in 1794 for the Indian Languages and afterwards adopted, with some practical modifications introduced by Sir W. W. Hunter, by the Government of India as the "Hunterian System." My method of writing Andamanese was subsequently modified for scientific purposes by Mr. A. J. Ellis in 1882, and having so highly trained and competent a guide, one cannot do better than use here a modification of his system, adapted to the needs of a general publication. Portman, unfortunately, has, in his publications, gone his own way, to the great puzzle of students.

In this view, there is no necessity to say anything of the consonants used, and as to the vowels, the following table will sufficiently exhibit them in the Bea Language :—

The Vowels in Bea.

	English	Bea		English	Bea
a	idea, cut	alaba	o	indolent	boigoli
ā	cur	bā, yāba	ō	pole	jōb
â	father	dâke	ö	könig (Ger.)	tö
ä	fathom	järawa	ò	pot	pòlike
e	bed	ēmej	ô	awful	tôgo
ê	fade	akabêada	u	influence	būkura
ē	pair	ēla	ū	pool	pūdre
i	lid	igbadigre	ai	bite	daike
ī	police	yâdī	au	house	chopaua
...	...	...	àu	haus (Ger.)	chàu
...	...	...	òi	boil	bòigoli

Peculiarities of Speech.—Stress in Andamanese is placed on every long vowel, or on the first syllable of the root or stem. Peculiarities of pronunciation in the South Andaman Languages are as follow :—

Bea.

Sibilants tend to become palatals, *s* to *ch: ō* and *ô* are interchangeable : final open *á* and *é* tend to *a* and *e: t* is an indistinct palato-dental.

BALAWA.

t is palato-dental and lisped, *cf.* Irish pronunciation of English *t* and *d*. The *a* vowels tend to be drawn out: *a* to become *o*, and *á* to become *oá*. There is also an incipient *sandhi* in words ending in gutturals: *e.g.*, *rák*, pig; *rág-dōamo*, pig's flesh.

BOJIGYAB.

ch is palato-dental and tends to *t*, and the *ch* of Bea tends in Bojigyab to become *s*; *i.e.*, palatals tend to become sibilants.

JUWAI.

Short vowels are not clearly marked: *e* and *a* are interchangeable: final *e* an *é* tend to *i*. Vanishing short vowels are common and are shown thus, *j'rōngap*: *o* is often drawled to *ô*: penultimate *e* is lengthened to *é*, and stressed *é* is drawled to *éa*. There is *sandhi* of final and initial vowels in connected consecutive words. Dental, palatal and cerebral *t* all exist: palatals tend to dentals, *ch* to *t*: *p* tends to soften to *ph* and almost to *f*.

KOL.

ä interchanges with *ö*: *á* tends to *eá*, *cf.* old English pronunciation *gyarden* for *garden*: *e* tends to *é*: final open vowels are uncertain.

V. THE NORTHERN AND OUTER GROUPS.

Proofs of the Identity of the Northern and Southern Groups of Languages.—Of the Five Languages of the Northern (Yerewa) Group, two, Kora and Tabo, are still quite unstudied, the knowledge of the existence of the tribes speaking them being of less than two years' standing, and the language of the Yere Tribe is very little known. Portman has, however, preserved long lists, unfortunately to be treated with much caution, of Kede and Chariar words, together with many sentences, and it will be sufficient here to give a series of roots and stems, showing where the Northern and Southern Languages meet, and how closely related they are by roots: premising that the syntax and word-structure of the Northern Group is identical with that of the Southern Group, and that affixes, notably the radical prefixes, are used precisely in the same way in both Groups. It is in the names for common objects and things that languages show their relationship, and the Bojigngiji and Yerewa Groups form no exception to this rule.

TABLE OF SOME BOJIGNGIJI AND YEREWA ROOTS SHOWING A COMMON ORIGIN.

English	Bea	Bojigyab	Kede	Chariar
pig	reg	re	ra	ra
turtle	tau	tare	tôrô	tôrô
clam	chowai	chowai	chowai	choa
grub	butu	peti	pata	pata
fish	yat	taiye	tajeu	tajeu
bow (N.)	chokio	chokio	chokie	chokwi
bow (S.)	karama	ko	ku	ku
wooden arrow	tirlech	tolô	tirleich	tirleit
wooden pig a.	peligma	paligma	paligma	paligma
wooden a. head	cham	cham	chôm	chom
harpoon string	betmo	kôri	betmô	luremô
bamboo bucket	gob	bire	kup	kup
shell-dish	chidi	kar	kar	kar
shell-cup	odo	kor	kur	kor
adze	wolu	wole	wo	olo
baby-sling	chip	chepe	chipa	chiba
cord-ornament	ra	ra	ro	iku
leaf-wrapper	kapa	kaba	kôbo	kôbu
red-ochre	koiob	keyep	keip	keip
stone hammer	tailibana	me	mio	meô
stone anvil	rôrop	rarap	rôrop	rôrop
canoe	roke	ro	ro	rua
c. outrigged	charigma	charikma	chorok	chorok

The same community of roots is to be seen in the names of the trees on the islands, establishing beyond doubt the close common origin of the Andaman Tribes of the Yerewa and Bojigngiji Groups, though it will, of course, be

understood that in full form, with prefixes and suffixes, very nearly related words are, in practice, unintelligible to the ear. There are, equally of course, a great number of words, the roots of which, while common to each other in the Yerewa Group, differ entirely from those common to the Bojigngiji Group: thus—

TABLE OF VARYING BOJIGNGIJI AND YEREWA ROOTS.

English	Bea	Bojigyab	Kede	Chariar
ornamental net	rab	rap	chirebale	chirbale
jungle-cat	baiyan	beyen	chau	chau
belt, round	bod	bel	tôtô	tôtô
b. flat, broad	rugan	rogan	kuto	kudu
iron fish, arrow	tôlbod	pôt	rautul	rautul
larvæ in comb	tô	to	jotu	joto
honey	aja	koi	tumel	tumel
black honey	tubal	tipal	maro	maro
cockles	ula	tale	bun	bun

It is to be observed that in the above list, the compound stem in Bea for iron-fish-arrow, *tôlbod*, is made up apparently of the roots *pôt* and *tul* in the other languages quoted: while *rautul* seems to have become transferred from the pig, *ra*, to the fish, *tajeu*. A similar transfer has taken place between *tumel*, *timel*, the "black honey" of the North and *tubal*, *tipal*, the "honey" of the South. All of which observations tend to confirm the close connection between the Tribes and the Languages of both Groups.

The Outer Group (Önge-Jarawa) examined.—In turning to the Önge-Jarawa Group, one finds that the hostility of the Jarawas, and the only recent friendliness of the Önges combined with the inaccessibility of the island they inhabit, have caused the knowledge of their language to be but slight. However, we have the careful *Vocabulary* of Colebrooke made in 1790 and those made by Portman just a century later. An examination of these affords sufficient results for the present purpose: *viz.*, proof of the fundamental identity of the language of these people with that of the rest of the Andaman Tribes, and what is, perhaps, quite as interesting, proof that Colebrooke's informant really was a Jarawa.

The Limited Knowledge of it.—A comparison of such of Portman's words as can be compared with Colebrooke's, when shown with roots and affixes separated and reduced to one system of transcription, produces the following results; noting that in their actual lists, both enquirers fell into the natural error of taking the prefixed inflected "personal pronouns" to be essential parts of the words to which they were attached.

A LIST OF ÖNGE-JARAWA WORDS.

English.	Colebrooke's Jarawa	Portman's Önges
arm	pi-li	öni-bi-le
arrow	batoi	bartoi
bamboo	o-ta-li	o-da-le
basket	tere-nge	tô-le
bead	tahi	taiyi (stone)
beat	ingo-taiya (b. a person)	yökwö-be
belt	oto-go-le	are-kwa-ge
bite	m-o-paka-be (b. me)	oni-baga-be (b. a person)
black	chigeu-ge	be
blood	koche-nge	gache-nge
bone	ng-i-to-nge (your b.)	ichin-da-ge
bow	ta-nge (? wood), ta-hi (as shown in ng-i-tahi) (your bow)	aai
breast	ka	ng-a-ga-ge (your b.)
canoe	lak-ke	tate
chin	pi-to-nge (c. bone)	ibi-ta-nge (c. bone)
cold	choma	ugite-be (to be c.)
cough	ingo-talie (? ta-be)	udu-be
drink	m-inggo-be (I d.)	injo-be
ear	kwa-ge	ik-kwa-ge
earth	totanga-ge	tutano-nge
eat	ingo-lolia (? imp.)	öni-lokwale-be
elbow	m-aha-lajebe (my e.)	aha-lageboi

nglish	Colebrooke's Jarawa	Portman's Önges
eye	jebe	öni-jeboi
finger	m-ome (my f.)	ome
fire	m-ona (my f.)	tu-ke
fish	ng-a-bohi (your f.)	cho-nge
hair	ot-ti	o-de
hand	ng-oni (your h.) m-oni (my h.)	ome
head	tebe	öni-tolajiboi (man's head)
honey	lo-ke	tanjai
house	bede	bedai
iron (adze-head)	dahi	doii
jump	i-to-le (a j.)	akwa-tokwa-be (to j.)
knee	ingo-le-ke (man's k.)	o-la-ge
laugh	onke-me-be	önge-ma-be
nail	m-o-bejeda-nga (my n.)	m-o-bedu-nge (my n.)
neck	tohi	öni-ngito
net	bato-li	chi-kwe
nose	m-e-li (my n.)	öni-nyuboi
paddle	m-ekal (my p.)	taai
path	echo-li	iche-le
pig	stwi	kwi
pinch	ingi—gini—cha body-pinch-don't (don't pinch me)	öni-gini-be
plantain-tree	chole-li	yolô-le
pot	buchuhi	buchu
pull	toto-be (+tigikwa)	tötö-be (go)
rain	oye	gujö-nge
run	ng-aha-bela-be (you r.)	aha-bela-be
scratch	inga-bea-be	a-kwea-be
sing	goko-be	gögaba-be
sit	ng-ong-tahi (s. you)	önan-tokö
sleep	ng-omo-ka (s. you)	omo-ka-be
sky	madamo	be-nge-nge (flattened out)
sneeze	o-che-ke (a s.)	e-chi-be (to s.)
spitting	inga-hwa-nge	öna-kwa-nge
star	chilo-be (? shines)	chilome-be (moon : ? shines)
stone	wu-le	taiyi
sun	ehe	eke
swim	kwa-be	kwane-be
take up	ng-a-toha (you t. u.)	genge-be
teeth	m-ahoi (my t.)	m-akwe (my t.)
tongue	ta-li	alan-da-nge
walk	bunijwa-be	bujiö-be
water	m-igwe (my w.)	i-nge
weep	wana-be	wana-be
wind	tomjame	totôte
wood (tree)	ta-nge	da-nge

In addition to this list of words offering comparisons, the following from Colebrooke can more or less clearly be made out on the same lines :—

COLEBROOKE'S JARAWA WORDS.

English	Jarawa	English	Jarawa
(white) ant	do-nge	friend	padu
bat	witwi-le	leg	chi-ge
belly	ng-a-poi (your b.)	man	ng-amo-lan (you are a man ?)
bind	to-be, toto-be	mouth	m-ona (my m.)
bird	lohe	seed	kita-nge
bracelet	a-le	smoke	bali-ngi
charcoal	wahi	swallow	bi-be
crow	nahe	thigh	poi
flesh	wuhi	wash (self)	inga-doha-be

Portman is unfortunately always difficult to follow in his linguistic statements, as they are so uncertain. His vocabularies are apt to differ frequently from the statements in his lists of sentences, and where his vocabularies can be compared they are inconstant : but at p. 731, Vol. II, of his *History of our Relations with the Andamanese,* he gives a comparative list of Jarawa and Önge words from his own observations.

PORTMAN'S ÖNGE-JARAWA WORDS.

English	Jarawa	Önge
arrow	bartoi	bartoi
axe	doii	doii
bamboo	otale	ôdale
bow	aaii	aai
bucket	uhu	ukui
crab	kagai	kagaia
drink	injowa	injobe
eye	injamma	unijeboi
fire	tuhawe	tuke
foot	monge	muge
hair	enoide	môde
hand	mome	mome
iron	tanhi	doii (iron adze)
leaf	bebe	bebe
nautilus	gaai	gaai
navel	inkwa	onikwale
net	bortai	chikwe
nose	inama	uningaiboi
road	ischele	ichele
run	ahabelabe	akwebelabe
sea	etale	detale (Passage Id, an islet in the sea)
sit down	atôn	unantokobe
sky	baingala	bengonge
sleep	omohan	omokabe
string	etai	ebe
stone	uli	taiyi
tooth	anwai	makwe
water	enule	inge

In some of the above words, where Colebrooke differs from Portman, it will be found that Colebrooke's forms, when reduced to a common transcription, are nearest the Önge.

Recovery of Colebrooke's Jarawa Vocabulary of 1790.—By pulling the words in the first list to pieces, the identity in race of Colebrooke's native (Jarawa) with Portman's natives (Önges) will be at once evident. Many roots and affixes are common, and the words are clearly built up precisely as are all other Andamanese words by radical prefixes to roots relating fundamentally to the body and its parts and by qualitative suffixes. In addition to this, the prefixes are joined to the "personal pronouns" by pre-inflexion in the manner peculiar to the Andamanese languages. And although we have nothing more on record of the Jarawa tongue than Colebrooke's list, supplemented by Portman's, of any value, we have thus enough to establish the relation of Jarawa and Önge as languages of the same Group, and the relation of both as languages of the same Family as the other Andamanese tongues.

In Jarawa the *k* of Önge tends to interchange with *h*, and by inference the Jarawas appear to use *ngg* for the Önge *ng* and to say *i-nggo* in place of *ö-nge*.

Leaving the roots to explain themselves, the inflected forms of the "pronouns" show themselves, thus—

ÖNGE-JARAWA "PRONOUNS."

English	Jarawa	Önge
I, my	m'-	m'-
You, your	ng'-	ng'-

The qualitative suffixes appear to be as follow—

ÖNGE-JARAWA QUALITATIVE SUFFIXES.

for "nouns"	-li, -le	-le
for "verbal nouns"	-nge, -nga, -ge, -ke	-nge, -ng, -ge, -ke
for "verbs"	-be	-be,-me

The radical prefixes are given in a great variety of forms, which will probably disappear on closer knowledge of the languages.

ÖNGE-JARAWA RADICAL PREFIXES.

Jarawa	Önge
ingo–, ingi–, inga–, onke–, öng–, ö–	öni–, öna–, önu–, öno–, önan–, ina–, ine–, eng–, eni–, önge–
uni–	u–
o–, i–, ôt–	ô–, ö–, a–, e–
i–	eje–, ichin–, e–
pi–	ibi–, ebe–
i–	akwa–, akwe–, ako–, ik–, ig–, i–
aha–, a–	aha–, a–
omo–	omo–
oto–	are–
	alan–

Of these, as prefixes relating to mankind and the human body, the following occur :—

öni–, a general prefix of the body and then,

Class I	öni–	head, lip, neck, nose, navel, hip, testicles, stomach.
Class II	ik–, ig–, i–	cheek, ear.
Class III	ibi–	chin.
Class IV	o–	fist, knee, nail, throat.
Class V	alan	teeth.

That the relation between concrete words for the parts of the body and those for ideas belonging to them is shown by the prefixes, comes out neatly in *ik-kwa-ge*, ear : *ik-aibene*, deaf. So, too, the words *ichin-da-nge* and *i-to-nge* given for " bone " probably refer to a bone of Class II.

Proof of the Identity of Önge-Jarawa with the other Groups.—Among an untutored people, so long isolated even from the other Andamanese, one would hardly look for many roots now in common with them, but the following, which occur in such short lists as those available, sufficiently establish a common origin for the Family.

SOME COMMON ROOTS IN THE ANDAMAN LANGUAGES.

English	Önge-Jarawa	Remaining Languages
bat	witwi	wôt, wat, wot.
cold	choma	choki (Bea).
red ochre	gyalap	bilap, upla.
net	chi	chi.
sneeze	che, chi	chiba (Bea, Balawa).
" God "	Uluga : (*öluge*, thunder)	Puluga, Bilak (Bea *wul-nga*, storm).
turtle	chöbe	chokbe (Kede, Chariar).
water	i, ig	ina (Bea, Balawa).
bone	to	ta, toa (Bea, Balawa).
wood	ta, da	ta, toa, to.

Colebrooke showed all sorts of impossible things to his Jarawa to name, and one interesting result is the following :—

English	Jarawa	Önge
cotton cloth } paper }	pa—nge——be	be—nge——be
	flat—become–is	flat–become–is

Of course, no Jarawa had ever seen before anything approaching to either object, and this man's one expression for both means " it is (has been) flattened," which is what the savage meant to convey when asked anything so impossible as to name them.

In Appendix B will be found a further list of Önge words to aid in the study of this interesting language.

Derivation of Mincopie.—We are now in a position to solve a great puzzle of ethnographists for a century and more : why were the Andamanese called Mincopie by Europeans ? What word does this transcription represent ? It can now be split up thus—

M–ö——nge—be.
I—man–kind-am
(I am an Önge)

Or, as the the Jarawas perhaps pronounce the expression " M-inggo--be " or even " M-injo-be," I am an Inggo (Injo). The name given by the Önges to

themselves is a "verbal noun" *ó-nge*, man-being. So that when questioned as to himself by Colebrooke, this Jarawa replied "M'inggobe," or something like it, which compound expression by mistranscription and misapprehension has become the well-known Mincopie of the general ethnological books in many languages for an Andamanese. The Önges call their own home, the Little Andaman, Gwabe-l'Önge. Jarawa is a modern Bea term, possibly radically identical with Yerewa, the Bea name for the Northern Group of Tribes.

It is just possible that Colebrooke's Jarawa misunderstood what was wanted altogether and simply said, "I am (will be, would be) drinking: *m-inggo-be*, I-drink-do."

I have now to record a great disappointment. The proof that the method herein adopted for recovering the Jarawa Language was correct lay in the fact that the word *i-nge* for "water" was ascertained from a little Jarawa boy captured in February, 1902, and the identical word was quite independently unearthed from Colebrooke's and Portman's Vocabularies as Önge-Jarawa for "water." The only other word clearly ascertained from the boy *walu-ng* for "pig," has not been gathered independently as yet. This little boy was the last of the prisoners left, who were captured on that occasion (*vide* Ch. III, Appx. C.) as the women and small children and girls were all returned and only two boys kept back for a while in order to get their language, etc., from them. Of these, the elder died of fever and on the very day that their language was fairly recovered, and we were in a position to set to work to learn quickly from him, the younger died very suddenly, without warning illness, of pneumonia.

APPENDIX A.

EXPLANATION OF THE THEORY OF UNIVERSAL GRAMMAR USED IN EXPOUNDING THE ANDAMAN AND NICOBAR LANGUAGES.

In building up a Theory of Universal Grammar it is necessary in order to work out the argument logically, to commence where the accepted Grammars end, *viz.*, at the sentence, defining the sentence as the expression of a complete meaning, and making *that* the unit of language. Clearly, then, a sentence may consist of one or more expressions of a meaning or "words," defined as single expressions of a meaning. It can also consist of two separate parts—the subject, *i.e.*, the matter to be discussed or communicated, and the predicate, *i.e.*, the discussion or communication. And when the subject or predicate consists of many words it must contain principal and additional words.

This leads to the argument that the components of a sentence are words, placed either in the subjective or predicative part of it, having a relation to each other in that part of principal and subordinate. Therefore, because of such relation, words fulfil functions. The functions then must be of the principal words to indicate the subject or predicate, and of the subordinate words in the predicative part of the sentence to illustrate the predicate, and in the subjective part to explain the subject or to illustrate that explanation. Again, as the predicate is the discussion or communication on the subject, it is capable of extension or completion by complementary words, which form that part of a sentence recognized in the Grammars as 'the object.'

This completes the first stage of the argument leading to a direct and simple definition of grammatical terms; but speech obviously does not stop here, because mankind speaks with a purpose, and the function of his sentences is to indicate that purpose, which must be one of the following in any specified sentence:— (1) affirmation, (2) denial, (3) interrogation, (4) exhortation, (5) information.

Now, purpose can only be indicated in a sentence by the position or tones of its components, by variation of their forms, or by the addition of special introductory words. Also it is obvious that when purposes are connected they can be indicated by connected sentences, and that these sentences must be in the relation to each other of principal and subordinate. This relation can only be expressed by the position of the sentences themselves, by variation of the forms of their components, or by the addition of special words of reference. A word of reference must act in one of two ways, either by merely joining sentences, or by substituting itself in the subordinate sentence for the word in the principal sentence to which it refers. Further, as there is a necessary inter-relation between the words in a sentence, this can only be expressed by the addition of special connecting words, or by variation or correlated variation of form.

These considerations complete what may be called the second stage of the argument leading to clear definitions of grammatical terms. The argument thereafter becomes more complicated, taking us into the explanation of elliptical, *i.e.*, incompletely expressed, forms of speech, and into those expansions of sentences known as phrases, clauses, and periods. But to keep our minds fixed only on that part of it which leads to plain grammatical definitions, it may be stated now that functionally a word must be either,—inventing new terms for the purpose:

(1) An *integer*, or a sentence in itself. [imperatives, interjections, pronouns, numerals.]
(2) An *indicator*, or indicative of the subject or *complement* (object) of a sentence. [nouns.]
(3) An *explicator*, or explanatory of its subject or complement. [adjective.]
(4) A *predicator*, or indicative of its predicate. [verb.]
(5) An *illustrator*, or illustrative of its predicate or complement, or of the explanation of its subject or complement. [adverb, adjective.]
(6) A *connector*, or explanatory of the inter-relation of its components (words). [conjunction, preposition.]
(7) An *introducer*, or explanatory of its purpose. [conjunction, adverb.]
(8) A *referent conjunctor*, or explanatory of the inter-relation of connected sentences by joining them. [pronoun, conjunction.]
(9) A *referent substitute*, or explanatory of the inter-relation of connected sentences by substitution of itself in the subordinate sentence for the word in the principal sentence to which it refers. [relative pronoun, conjunction.]

These, then, were the terms proposed and the arguments out of which they grew. Of course, grammarians will know that all this is syntax, and it must now be explained why the Theory makes it necessary to consider it far more important to study function than form or tone as essential to the correct apprehension of the nature of words, and that accidence arises properly out of syntax and not the other way round, as we have all been taught.

It is obvious that any given word may fulfil one or more or all the functions of words, and that therefore words may be collected into as many classes as there are functions, any individual word being transferable from one class to another and belonging to as many classes as there are functions which it can fulfil. The functions a word fufils in any particular sentence can be indicated by its position therein without or with variation of form, or by its tone; and, because of this, the form or tone which a word can be made to assume is capable of indicating

the class to which it belongs for the nonce. It is further obvious that words transferable from class to class belong primarily to a certain class and secondarily to the others, that a transfer involves the fulfilment of a new function, and that a word in its transferred condition becomes a new word connected with the form fulfilling the primary function, the relation between the forms or tones, *i.e.*, the words, so connected being that of parent and offshoot. Form and tone, therefore, can indicate the class to which a parent word and its offshoots respectively belong.

This is the induction that leads to the argument that form grows out of function, or, to put it in the familiar way, accidence grows out of syntax, because when connected words differ in form they must consist of a principal part or stem, and an additional part or functional affix. The function of the stem is to indicate the meaning of the word, and the function of the affix to modify that meaning with reference to the function of the word. This modification can be expressed by indicating the class to which the word belongs, or by indicating its relation or correlation to the other words in the sentence.

But the stem itself may consist of an original meaning and thus be a simple stem, or it may contain a modification of an original meaning and so be a compound stem. A compound stem must consist of a principal part or root and additional parts or radical affixes, the function of the root being to indicate the original meaning of the stem, and of the radical affixes to indicate the modifications by which the meaning of the root has been changed into the meaning of the stem.

Further, since words fulfil functions and belong to classes, they must possess inherent qualities, which can be indicated by qualitative affixes and by tones.

Thus it is that the affixes determine the forms of words, bringing into existence what is usually called etymology or derivation. They are attachable, separably or inseparably, to roots and stems and words by the well-recognized methods of prefixing, infixing, and suffixing either in their full or in a varied form. It is the method of attaching them by variation of form that brings about inflexion in all its variety of kind.

Such is the line inductive argument naturally takes in order to work out the grammar of any given language or group of languages logically, starting from the base argument that speech is a mode of communication between man and man, expressed through the ear by talking, through the eye by signs, or through the skin by touch, and taking a language to be a variety or special mode of speech.

The grammar, *i.e.*, the exposition of the laws, of any single language stops at this point and to carry the argument further, as one of course must, is to enter the region of Comparative Grammar. In doing so one must start at the same point as before, *viz.*, the sentence, but progress on a different line, because hitherto the effort has been to resolve the unit of language into its components, and now it has to be considered as being itself a component of something greater, *i.e.*, of a language.

To continue the argument. Since a sentence is composed of words placed in a particular order without or with variation of form, its meaning is clearly rendered complete by the combination of the meaning of its components with their position and tones or forms or both. Also, since sentences are the units of languages, words are the components of sentences and languages are varieties of speech, languages can vary in the forms and tones of their words, or in the position in which their words are placed in the sentence, or in both. And thus are created classes of languages. Again, since the meaning of a sentence may be rendered complete either by the position of its words or by their tones and forms, languages are primarily divisible into syntactical languages or those that express complete meaning by the position of their words; and into formative languages, or those that express complete meaning by the forms of their words. Also, since syntactical languages depend on position or on position combined with tone to express complete meaning, they are divisible into analytical and tonic languages. Further, since words are varied in form by the addition of affixes, and since affixes may be attched to words in an altered or unaltered form, formative languages are divisible into agglutinative languages, or those that add affixes without alteration; and into synthetic languages, or those that add affixes with alteration. And lastly, since affixes may be prefixes, infixes, or suffixes, agglutinative and synthetic languages are each divisible into (1) pre-mutative, or those that prefix their affixes; (2) intro-mutative, or those that infix them; and (3) post-mutative, or those that suffix them.

Thus inductive argument can be carried onwards to a clear and definite apprehension of the birth and growth of the phenomena presented by the varieties of human speech, *i.e.*, by languages. But, as is the case with every other natural growth, no language can have ever been left to develop itself alone, and thus do we get the phenomenon of connected languages, which may be defined as those that differ from each other by varying the respective tones, forms and position, but not the meanings, of their words. And since the variation of form is effected by the addition of altered or unaltered affixes, connected languages can vary the forms of the affixes without materially varying those of the roots and stems of their words. In this way they become divisible into groups, or those whose stems are common, and into families, or those whose roots are common.

It is also against natural conditions for any language to develop only in one direction, or without subjection to outside influences, and so it is that we find languages developing on more than one line and belonging strictly to more than one class, but in every such case the language has what is commonly called its genius or peculiar constitution, *i.e.*, it belongs primarily to one class and secondarily to the others.

I have always thought, and I believe it can be proved, that every language must conform to some part or other of the Theory above indicated in outline, and in that case the

Theory would be truly what I have ventured to call it—"A Theory of Universal Grammar." That such a Theory exists in nature and only awaits unearthing, I have no doubt whatever. Mankind, when untrammelled by 'teaching,' acts on an instinctive assumption of its existence, for children and adults alike always learn a language in the same way if left to themselves. They copy the enunciation of complete sentences from experts in it to start with, learning to divide up and vary the sentences so acquired afterwards, and this is not only the surest but also the quickest way of mastering a foreign tongue correctly. Its natural laws, *i.e.*, its rules of grammar, as stated in books about it, are mastered later on, and in every case where they only are studied there comes about that book knowledge of the language, which is everywhere by instinct acknowledged to be a matter apart from and in one sense inferior to the practical or true knowledge. I use the term 'true' here, because, unless this is possessed, whatever knowledge may be acquired fails to fulfil its object of finding a new mode of communicating with one's fellow man.

Book knowledge of a language is useful only for scientific and educational purposes, but if the laws laid down in the set Grammars were to follow closely on the laws instinctively obeyed by the untutored man, and to do no violence to what instinct teaches him to be the logical sequence of ideas, the divorce between practical and linguistic knowledge —between knowledge by the ear and knowledge by the eye—would not be so complete as it is nowadays. And not only that, if the laws could be stated in the manner above suggested, they could be more readily grasped and better retained in the memory, and languages would consequently be more quickly, more thoroughly, and more easily learned, both by children and adults, than is now practicable. Looked at thus, the matter becomes one of the greatest practical importance.

This is what the Theory attempts to achieve : but, assuming it to be fundamentally right and correctly worked out, it should explain the workings of the untutored mind of the Andamanese or Nicobarese as exhibited in his speech, although it reverses the accepted order of teaching, alters many accepted definitions, and, while admitting much that is usually taught, it both adds and omits many details, and taken all round is a wide departure from orthodox teaching. How wide the following observations will show. The familiar terminology has been changed in this wise. The old noun, adjective, verb, adverb, preposition, and conjunction become indicator, explicator, predicator, illustrator, connector, and referent conjunctor, while interjections and pronouns become integers and referent substitutes. Certain classes also of the adverbs are converted into introducers. Gender, number, person, tense, conjugation, and declension all disappear in the general description of kinds of inflexion :—the object becomes the complement of the predicate, and concord becomes correlated variation.

The Theory is based on the one phenomenon, which must of necessity be constant in every variety of speech, *viz.*, the expression of a complete meaning, or, technically, the sentence. Words are then considered as components of the sentence, firstly as to the functions performed by them, and next as to the means whereby they can be made to fulfil their functions. Lastly, languages are considered according to their methods of composing sentences and words. Assuming this course of reasoning to be logically correct, it must, when properly worked out, explain every phenomenon of speech; and when its dry bones have been clothed with the necessary flesh for every possible language by the process of direct natural development of detail, a clear and fair explanation of all the phenomena of speech must be logically deducible from the general principles enunciated therein.

The Skeleton of a Theory of Universal Grammar.

SPEECH is a mode of communication between man and man by expression. Speech may be communicated orally through the ear by talking, optically through the eye by signs, tangibly through the skin by the touch. LANGUAGES are varieties of speech.

The *units* of languages are SENTENCES. A sentence is the expression of a complete meaning.

A sentence may consist of a single expression of a meaning. A single expression of a meaning is a WORD. A sentence may also consist of many words. When it consists of more than one word, it has two parts. These parts are the SUBJECT and the PREDICATE. The subject of a sentence is the matter communicated or discussed in the sentence. The predicate of a sentence is the commmunication or discussion of that matter in the sentence.

The subject may consist of one word. It may also consist of many words. When it consists of more than one word, there is a principal word and additional words. The predicate may consist of one word. It may also consist of many words. When it consists of more than one word, there is a principal word and additional words. Therefore the *components* of a sentence are words placed either in the subjective or predicative part of it, having a *relation* to each other in that part. This relation is that of principal and subordinate.

Since the words composing the parts of a sentence are placed in a position of relation to each other, they fulfil *functions*. The function of the principal word of the subject is to indicate the matter communicated or discussed by expressing it. The function of the subordinate words of the subject may be to explain that indication, or to illustrate the explanation of it. The function of the principal word of the predicate is to indicate the communication or discussion of the subject by expressing it. The function of the subordinate words of the

predicate may be to illustrate that indication, or to complete it. The predicate may be completed by a word explanatory of the subject or indicative of the COMPLEMENT. Therefore, primarily, the words composing a sentence are either—

(1) INDICATORS, or indicative of the subject.
(2) EXPLICATORS, or explanatory of the subject.
(3) PREDICATORS, or indicative of the predicate.
(4) ILLUSTRATORS, or illustrative of the predicate, or of the explanation of the subject.
(5) COMPLEMENTS, or complementary of the predicator.

And complements are either indicators or explicators. Therefore also *complementary indicators* may be explained by explicators, and this explanation may be illustrated by illustrators. And *complementary explicators* may be illustrated by illustrators.

But, since speech is a mode of communication between man and man, mankind speaks with a *purpose*. The function of sentences is to indicate the purpose of speech. The purpose of speech is either (1) affirmation, (2) denial, (3) interrogation, (4) exhortation, or (5) information. Purpose may be indicated in a sentence by the POSITION of its components, by the TONES of its components, by VARIATION of the forms of its components, and by the addition of introductory words to express it or INTRODUCERS.

Also, since the function of sentences is to indicate the purpose of speech, *connected purposes* may be indicated by CONNECTED SENTENCES. The relation of connected sentences to each other is that of principal and subordinate. This relation may be expressed by the position of the connected sentences, by variation of the tones or forms of their components, or by the addition of referent words expressing it or REFERENTS. A referent word may express the inter-relation of connected sentences by conjoining them, or by substituting itself in the subordinate sentence for the word in the principal sentence to which it refers. Referents are therefore CONJUNCTORS OR SUBSTITUTES

Also, since the words composing the parts of a sentence are placed in a position of relation to each other, this relation may be expressed in the sentence by the addition of connecting words expressing it or CONNECTORS, or by variation of the forms of the words themselves.

Also, since predicators are specially connected with indicators, explicators with indicators, illustrators and complements with predicators, and referent substitutes with their principals, there is an *intimate relation* between predicator and indicator, indicator and explicator, illustrator and predicator, predicator and complement, referent substitute and principal. This intimate relation may be expressed by the addition of connecting words to express it, or by *correlated variation* in the forms of the specially connected words or by their relative position or by their relative tones.

Since speech is a mode of communication between man and man by expression, that communication may be made complete without complete expression. Speech may, therefore, be partly expressed, or be partly left unexpressed. And since speech may be partly left unexpressed, referent words may refer to the unexpressed portions, and words may be related to unexpressed words or correlated to them. Referent substitutes may, therefore, indicate the subject of a sentence.

Again, many words may be used collectively to express the meaning of one word. The collective expression of a single meaning by two or more words is a PHRASE. The relation of a phrase to the word it represents is that of original and substitute. A phrase, therefore, fulfils the function of its original.

Since a phrase is composed of words used collectively to represent a single expression of a meaning, that meaning may be complete in itself. Therefore a phrase may be a sentence. A sentence substituted for a word is a CLAUSE. A clause, therefore, fulfils the function of its original.

Since clauses represent words, a sentence may be composed of clauses, or partly of clauses and partly of words. A sentence composed of clauses, or partly of clauses and partly of words, is a PERIOD.

Therefore a word is functionally either—

(1) A sentence in itself or an INTEGER,
(2) An *essential component* of a sentence, or
(3) An *optional component* of a sentence.

The essential components of a sentence are (1) indicators, (2) explicators, (3) predicators, (4) illustrators, (5) complements. And complements are either indicators or explicators.

The optional components of a sentence are (1) introducers, (2) referents, (3) connectors. And referents are either referent conjunctors or referent substitutes.

To recapitulate: Functionally a word is either—

(1) An INTEGER, or a sentence in itself.
(2) An INDICATOR, or indicative of the subject or complement of a sentence.
(3) An EXPLICATOR, or explanatory of its subject or complement.
(4) A PREDICATOR, or indicative of its predicate.
(5) An ILLUSTRATOR, or illustrative of its predicate or complement, or of the explanation of its subject or complement.
(6) A CONNECTOR, or explanatory of the inter-relation of its components.

(7) An INTRODUCER, or explanatory of its purpose.
(8) A REFERENT CONJUNCTOR, or explanatory of the inter-relation of connected sentences by joining them.
(9) A REFERENT SUBSTITUTE, or explanatory of the inter-relation of connected sentences by substitution of itself in the subordinate sentence for the word in the principal sentence to which it refers.

An individual word may fulfil all the functions of words, or it may fulfil only one function, or it may fulfil many functions. When a word can fulfil more than one function, the function it fulfils in a particular sentence is indicated by its *position* in the sentence, either without variation of form or with variation of form or by its TONE. There are, therefore, CLASSES OF WORDS.

Since a word may fulfil only one function, there are as many classes as there are functions. Also since a word may fulfil more than one function, it may belong to as many classes as there are functions which it can fulfil. A word may, therefore, be transferable from one class to another; and this transfer may be effected by its *position* in the sentence without variation of form, or with varation of form or by its TONE. The class to which a word belongs may, therefore, be indicated by its FORM or TONE.

When a word is transferable from one class to another, it belongs primarily to a certain class, and secondarily to other classes. But, since by transfer to another class from the class to which it primarily belongs (with or without variation of form) the word fulfils a *new function*, it becomes a *new word* connected with the original word. The relation between CONNECTED WORDS is that of parent and offshoot. Since the form of a word may indicate its class, both parent and offshoot may assume the forms of the classes to which they respectively belong.

When connected words differ in form, they consist of a principal part or STEM, and an additional part or FUNCTIONAL AFFIX. The function of the stem is to indicate the meaning of the word. The function of the functional affix is to modify that meaning with reference to the function of the word. This *modification* may be effected by indicating the class to which the word belongs, or by indicating its relation or correlation to the other words in the sentence.

A stem may be an original meaning or SIMPLE STEM, or it may be a modification of an original meaning or COMPOUND STEM. A compound stem consists of a principal part or ROOT, and additional parts or RADICAL AFFIXES. The function of the root is to indicate the original meaning of the stem. The function of the radical affixes is to indicate the *modification* by which the meaning of the root has been changed into the meaning of the stem.

Since words fulfil functions and belong to classes, they possess *inherent qualities*. The inherent qualities of words may be indicated by QUALITATIVE AFFIXES or by TONES.

Affixes are, therefore, *functional*, or indicative of the function of the word to which they are affixed, or of its relation or correlation to the other words in the sentence; *radical* or indicative of the modifications of meaning which its root has undergone; *qualitative*, or indicative of its inherent qualities.

Affixes may be—

(1) PREFIXES, or prefixed to the root, stem, or word;
(2) INFIXES, or fixed into the root, stem or word;
(3) SUFFIXES, or suffixed to the root, stem, or word.

Affixes may be attached to roots, stems, or words in their *full form*, or in a *varied form*. When there is variation of form, there is INFLEXION or inseparability of the affix from the root, stem, or word. All the functions of affixes can, therefore, be fulfilled by inflexion; and *inflected words* may conform to particular KINDS OF INFLEXION.

Since a sentence is composed of words placed in a particular order, with or without variation of form, the meaning of a sentence is rendered complete by the combination of the meaning of its components with their position, with their tones, or with their forms, or partly with their position and partly with their forms or tones.

Since sentences are the units of languages, and words are the components of sentences, and since languages are varieties of speech, languages may vary in the forms of their words, in the tones of their words, in the position in which their words are placed in the sentence, or partly in the forms and tones and partly in the position of their words. There are, therefore, CLASSES OF LANGUAGES.

Since the meaning of a sentence may be rendered complete by the position of its words, by their tones or by their form, languages are primarily divisible into SYNTACTICAL LANGUAGES, or those that express complete meaning by the position and tones of their words; and into FORMATIVE LANGUAGES, or those that express complete meaning by the position and forms of their words.

Since syntactical languages use either position or position and tone, they are divisible into ANALYTICAL LANGUAGES and TONIC LANGUAGES.

Since words are varied in form by the addition of affixes, and since affixes may be attached to words in an unaltered or altered form, formative languages are divisible into AGGLUTINATIVE LANGUAGES, or those that add affixes without alteration; and into SYNTHETIC LANGUAGES, or those that add affixes with alteration.

Since affixes may be prefixes, infixes, or suffixes, agglutinative and synthetic languages are each divisible into (1) PRE-MUTATIVE LANGUAGES or those that prefix their affixes;

(2) INTRO-MUTATIVE LANGUAGES, or those that infix their affixes; (3) POST-MUTATIVE LANGUAGES, or those that suffix their affixes.

Languages are, therefore, by class either syntactical or formative. And syntactical languages are either analytical or tonic and formative languages are either agglutinative or synthetic. And agglutinative and synthetic languages are either pre-mutative, intro-mutative, or post-mutative.

A language may belong entirely to one class, or it may belong to more than one class. When a language belongs to more than one class, it belongs primarily to a particular class, and secondarily to other classes.

Since the meaning of a sentence is rendered complete by the meaning of its words in combination with their forms or position, languages may be CONNECTED LANGUAGES, or those that vary the forms, the tones or the position, without varying the meanings, of their words.

Since variation of form is effected by the addition of affixes in an unaltered or altered form, connected languages may vary the affixes without variation of the roots or stems of their words. Connected languages whose *stems* are common belong to a GROUP. Connected languages whose *roots* are common belong to a FAMILY; and, therefore, all connected languages belonging to a group belong to the same family.

Diagrams to illustrate the Theory of Universal Grammar.

Diagrams are now given illustrating the Theory, in order to make the explanation of the Andaman and Nicobar Languages according to it the easier to understand. These diagrams are as follow:—

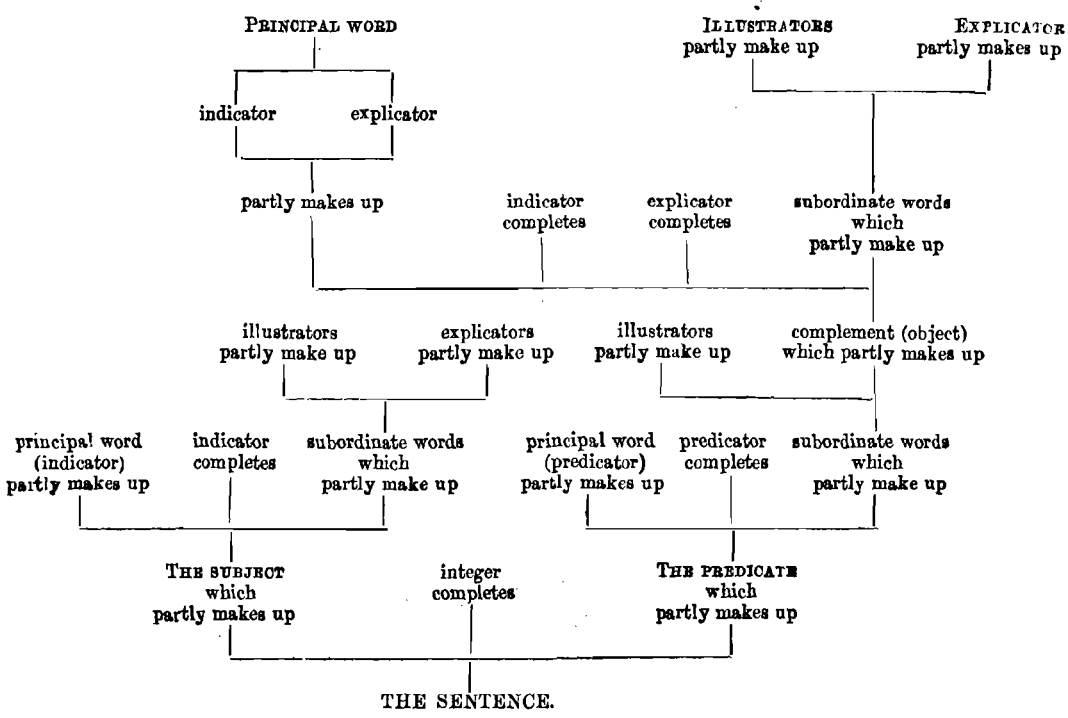
I	The Sentence illustrated	by its components.
II	„ „ „	by the inter-relation of its components.
III	„ „ „	by its function.
IV	„ „ „	by its expanded components.
V	„ „ „	by the inter-relation of its expanded components.
VI	„ „ „	by the functions of its components.
VII	„ „ „	by the classes of its components.
VIII	„ „ „	by the inter-relation of the classes of its components.
IX	„ „ „	by the inter-relation of the functions of its components.
X	„ „ „	by the position, tone and form of its components.
XI	„ „ „	by general development into languages.
XII	„ „ „	by development into classes of languages.
XIII	„ „ „	by development into inter-related classes of languages.

DIAGRAMS OF DETAILS.

I

Illustrating analysis of the Sentence by its component words.

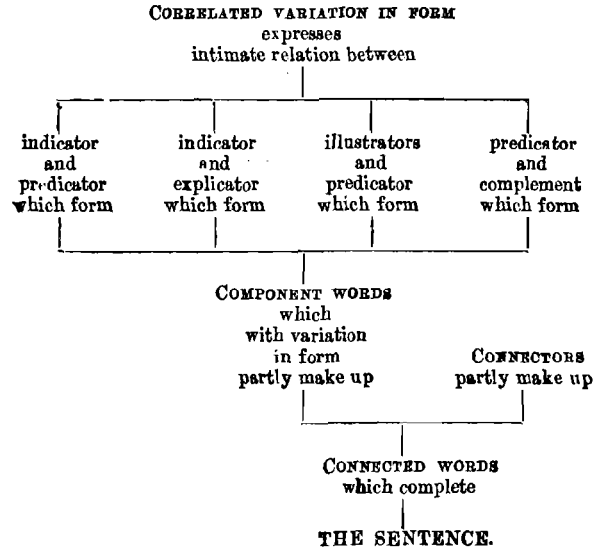
Notes.—A Sentence is composed of words.
A Word is the expression of a meaning.
A Sentence is the expression of a complete meaning.
Words required to express the meaning of a sentence are (1) integers, (2) indicators, (3) predicators, (4) explicators, (5) illustrators.



II.

Illustrating analysis of the Sentence by the inter-relation and intimate relation of its component words.

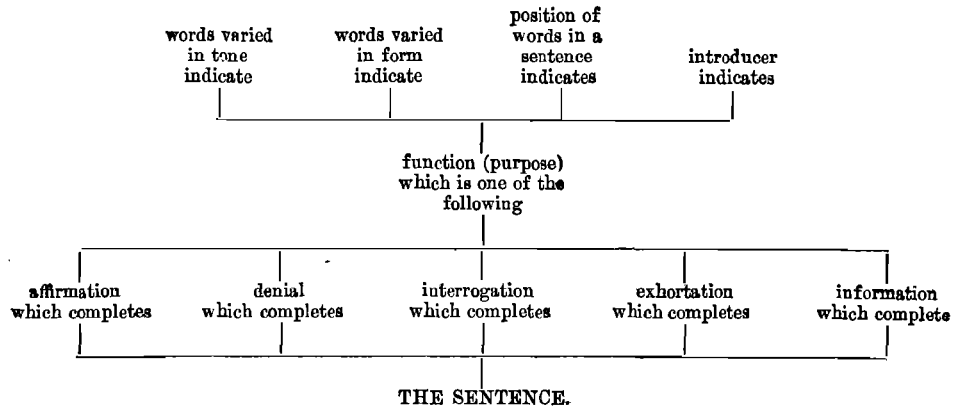
Notes.—Inter-relation of component words is expressed by variation in form.
Intimate relation of component words is expressed by correlated variation in form (agreement).
Words required to express the inter-relation of component words are (6) connectors.



III.

ILLUSTRATING ANALYSIS OF THE SENTENCE BY ITS FUNCTION.

NOTES.—The function of a sentence is to express its purpose.
Words required to express the function of a sentence are (7) Introducers.

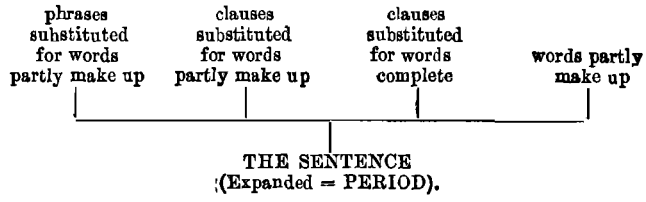


IV.

ILLUSTRATING ANALYSIS OF THE SENTENCE EXPANDED BY THE SUBSTITUTION OF PHRASES, CLAUSES AND SENTENCES FOR WORDS.

(PERIODS)

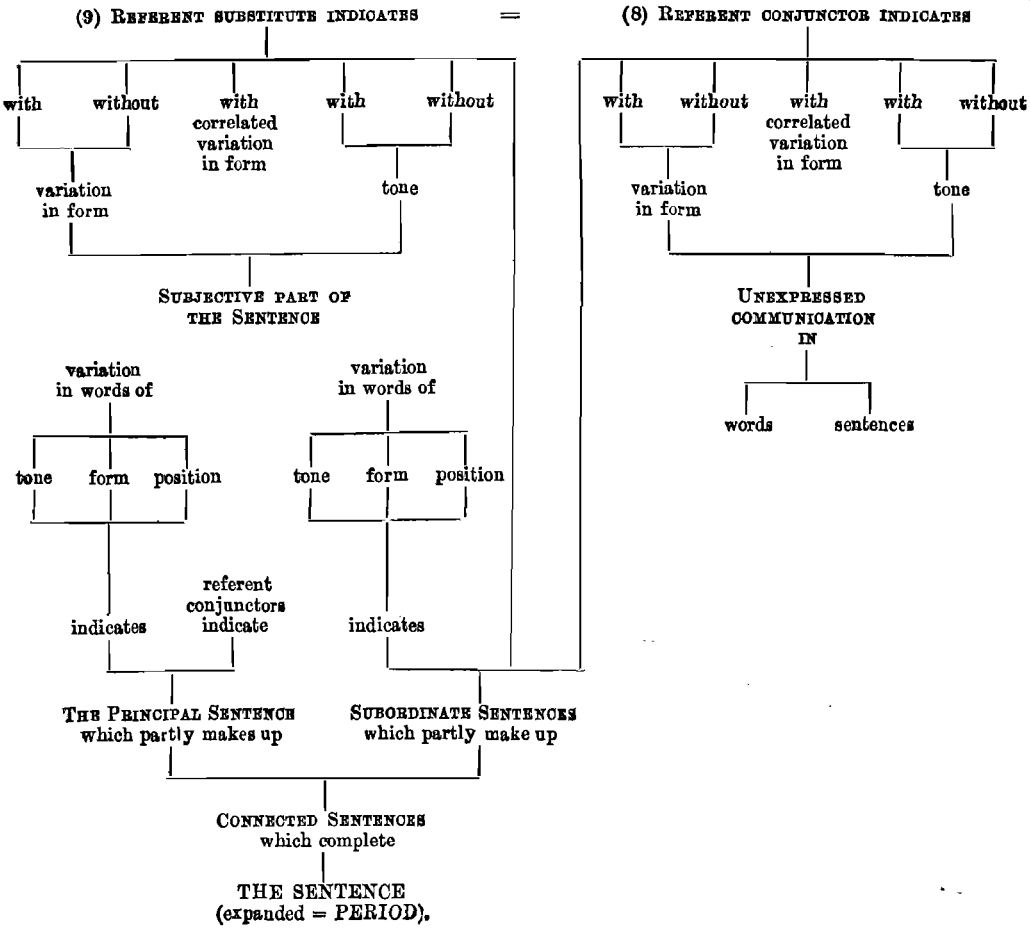
NOTES.—A phrase is the substitute for a word by the collective expression of a meaning by two or more words.
A clause is the substitute for a word by the collective expression of a complete meaning by two or more words.
A period is a sentence expanded by clauses or words.



V.

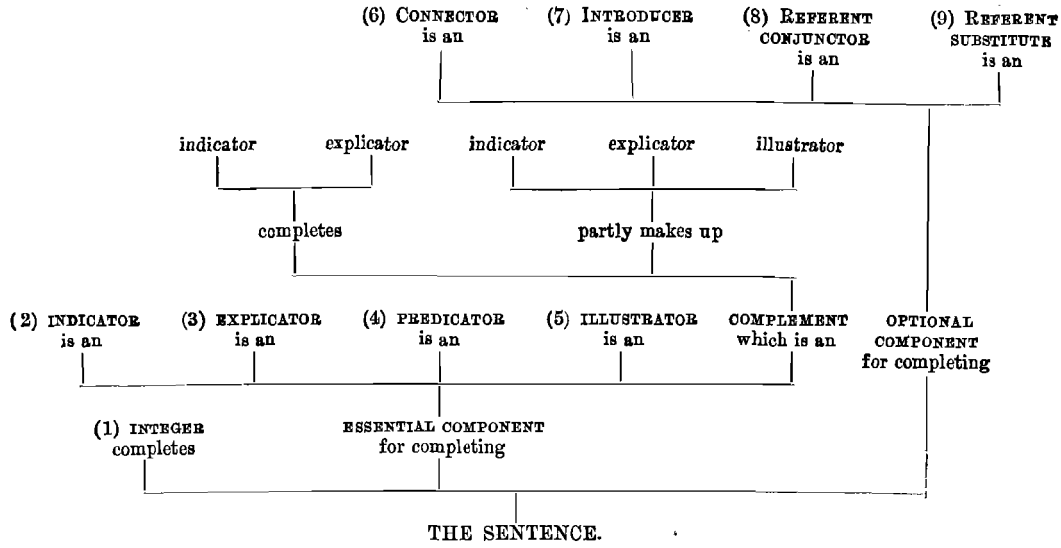
ILLUSTRATING ANALYSIS OF THE SENTENCE WHEN EXPANDED BY THE INTER-RELATION OF ITS COMPONENTS.

NOTE.—Connected sentences express connected purposes. Words required to express the inter-relation of connected sentences are (8) referent conjunctors. (9) referent substitutes. A tone is a point on a conventional scale of the voice in speaking.



VI.

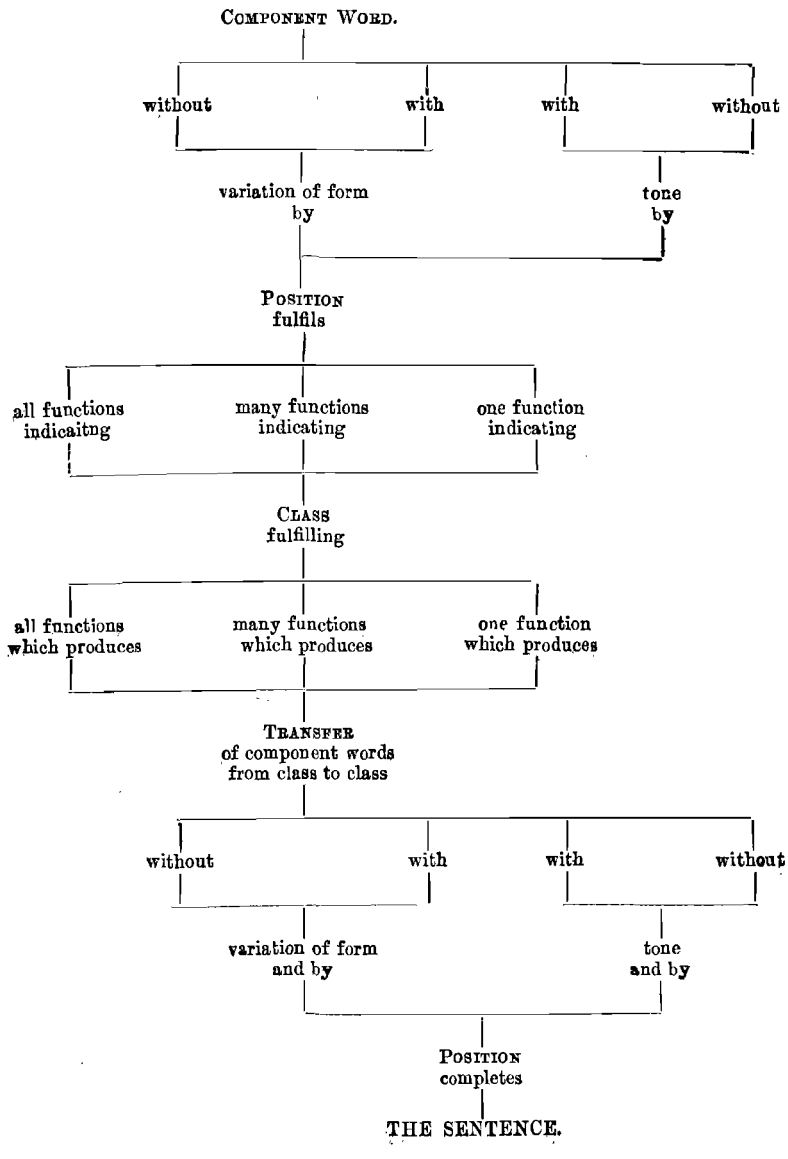
ILLUSTRATING ANALYSIS OF THE SENTENCE BY THE FUNCTIONS OF ITS COMPONENTS.



VII.

ILLUSTRATING ANALYSIS OF THE SENTENCE BY CLASSES OF ITS COMPONENTS.

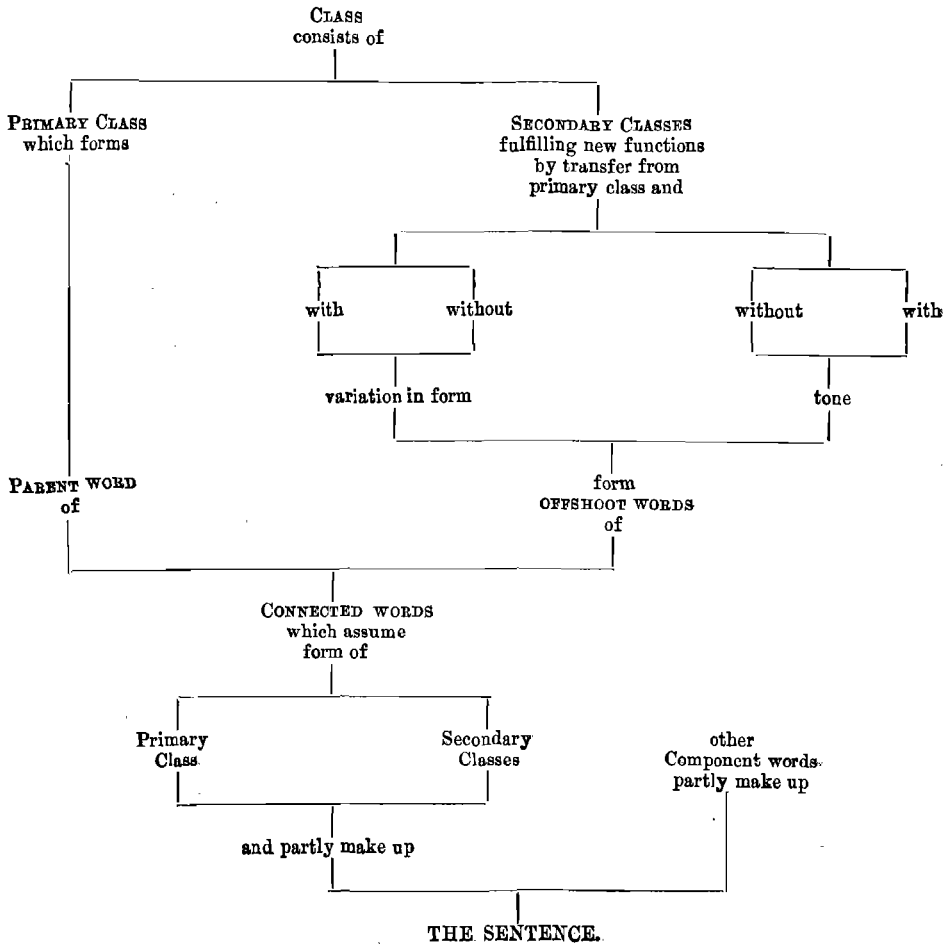
NOTES.—Class indicates the nature of a word.
Form indicates the class of a word.



VIII.

ILLUSTRATING ANALYSIS OF THE SENTENCE BY THE INTER-RELATION OF THE CLASSES OF ITS COMPONENTS.

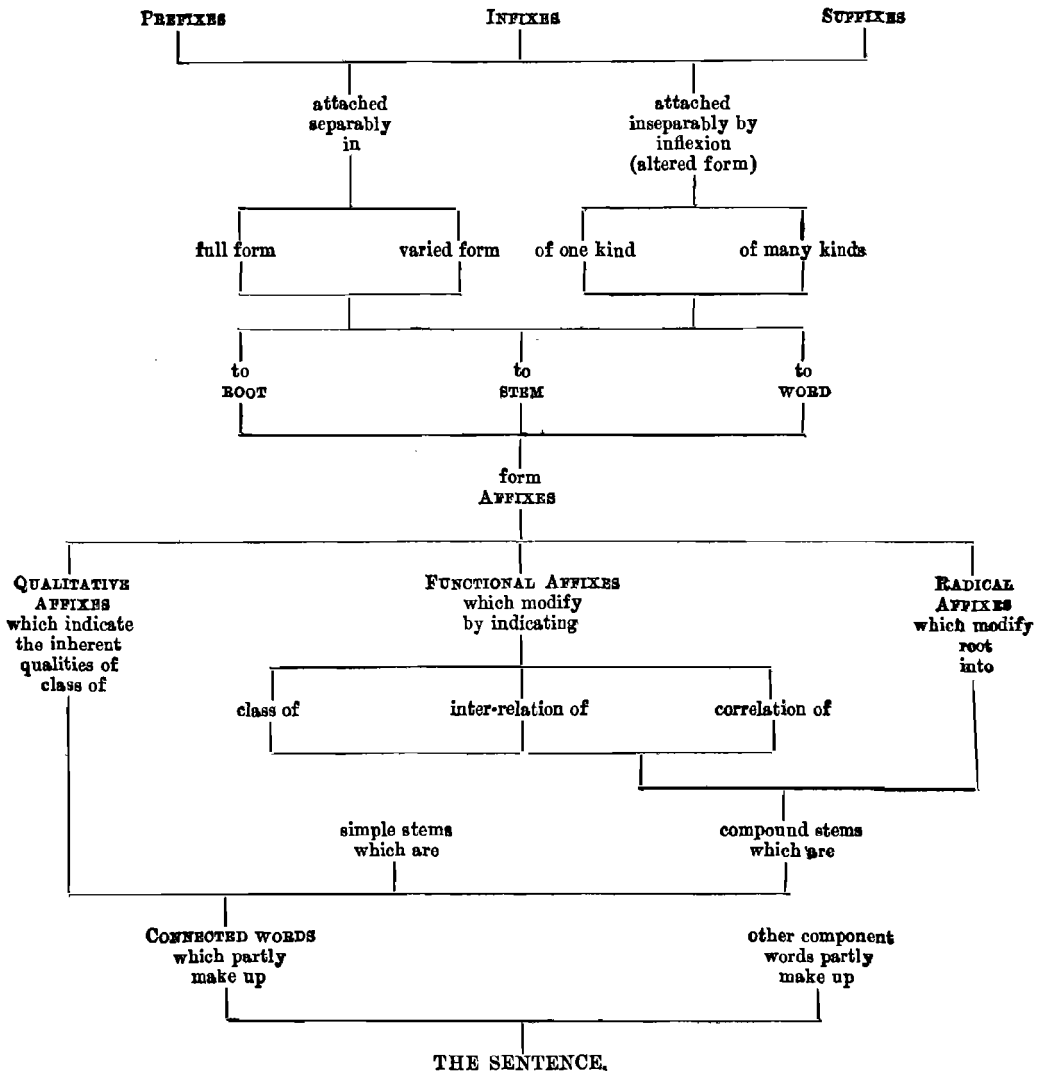
NOTE.—Connected words indicate their transfer from one class to another.



IX.

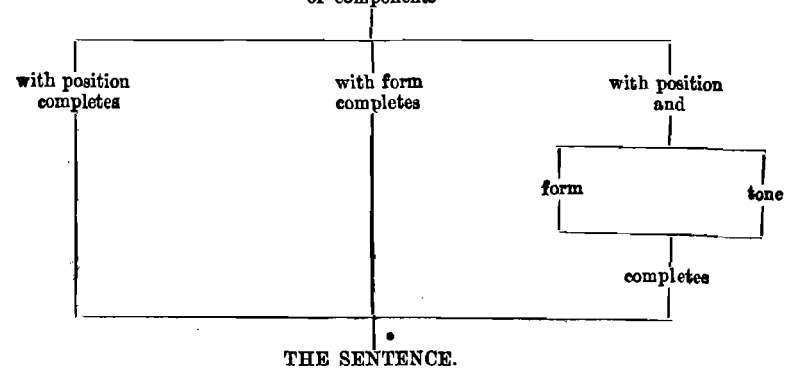
ILLUSTRATING ANALYSIS OF THE SENTENCE BY THE INTER-RELATION OF THE FUNCTIONS OF ITS COMPONENTS.

NOTES.—The root indicates the original meaning of a word.
Affixes comprise prefixes, infixes, suffixes.
Affixes modify the meaning of a word.
A radical affix modifies the meaning of a root.
A simple stem is the principal part of a word indicating its meaning.
A functional affix modifies the meaning of a stem in relation to its function.
A compound stem comprises a root and its radical affix.
A qualitative affix modifies a word by indicating its nature (inherent qualities) in relation to function or class.
Connected words comprise stems and their functional affixes.
Inflexion is caused by an alteration in the form of inseparable affixes.
Inflected words conform to particular kinds of inflexion.
Tone is a substitute for inflexion.



X.

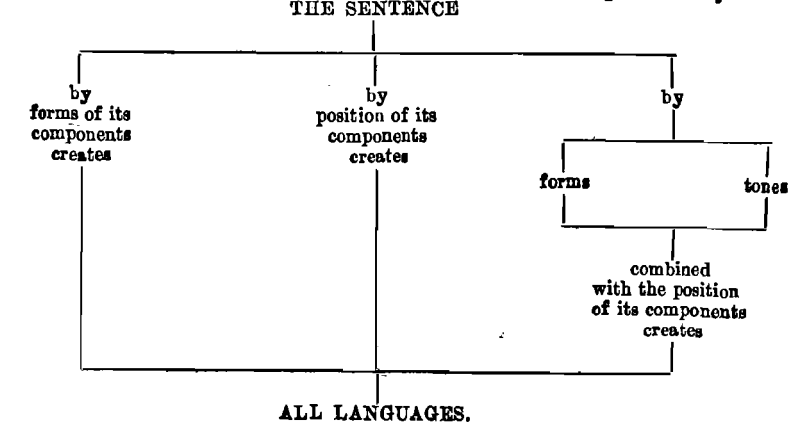
ILLUSTRATING ANALYSIS OF THE SENTENCE BY THE POSITION, TONE AND FORM OF ITS COMPONENTS.



XI.

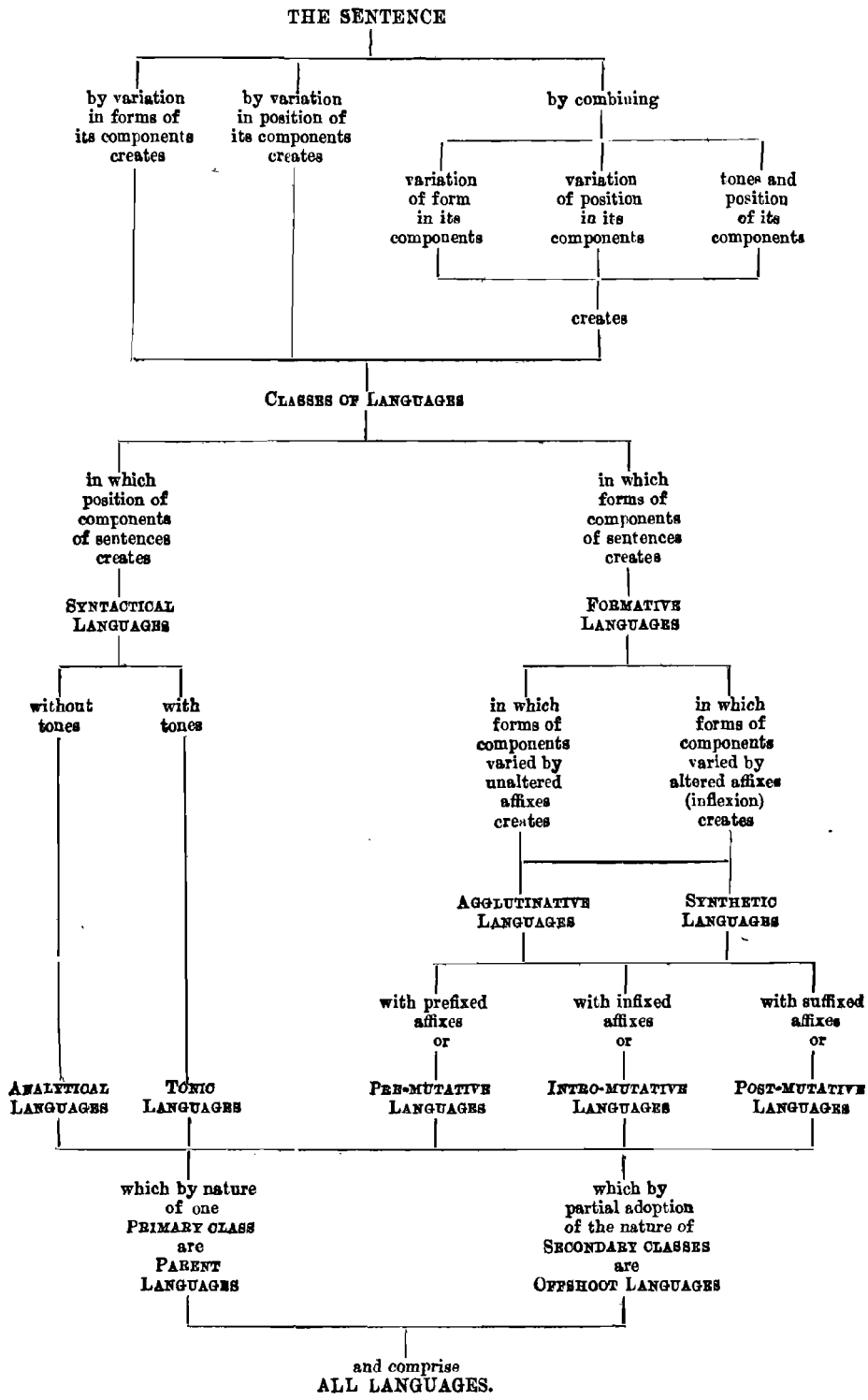
ILLUSTRATING ANALYSIS OF ALL LANGUAGES BY GENERAL DEVELOPMENT FROM THE SENTENCE.

NOTE.—No language has ever developed along one line of development only.



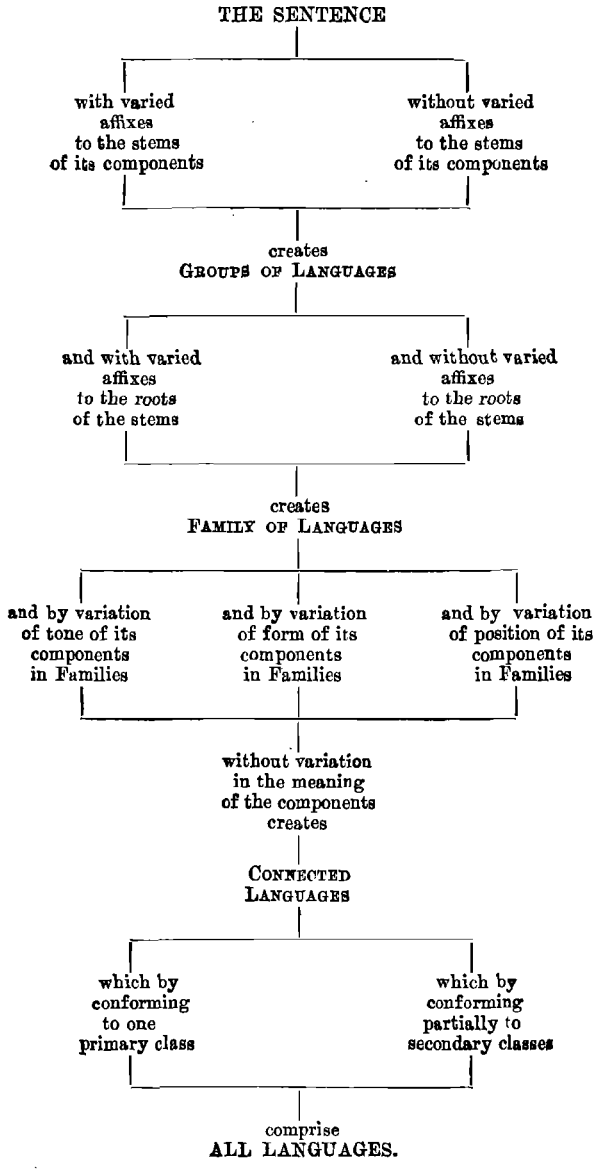
XII.

ILLUSTRATING ANALYSIS OF ALL LANGUAGES BY DEVELOPMENT IN CLASSES FROM THE SENTENCE.



XIII.

ILLUSTRATING ANALYSIS OF ALL LANGUAGES BY DEVELOPMENT IN THE INTER-RELATION OF CLASSES FROM THE SENTENCE.



APPENDIX B.

AN ÖNGE VOCABULARY.

The "Outer Group" of the Andamanese (Önges and Jarawas) bears the closest resemblance in customs, etc., *i.e.*, assuming them to bear any at all, to the Samangs and Aetas, of all the Andamanese Tribes, and hence there is much interest exhibited in their languages. In this Appendix, therefore, is gathered together as much of the Önge Vocabulary as can be with any degree of safety extracted from Portman's *Andamanese Manual*, the information in which is not, however, unfortunately, as clear as is desirable. In the following Table the roots have been separated from the prefixes and suffixes.

ÖNGE VOCABULARY.

abundant	gene
abuse (to)	önu-kweba-be
ache (to)	öni-dang-wule-be (bones a.)
acid	a-ñoii
adze	doii
ant	chantibo-de
apron (women's)	ng-a-kwinyoga-le (your a.)
armlet	ibi-kwe
arrow (iron)	bartoi
arrow (wood)	tota-le
arrow (fish)	tome
arrow (pig)	takŏi
arrow-shaft	takete-le
ashes	tongkute
awake (to)	lŏga-be
bag (of netting)	kumumwi, taugu-le
bale out (to)	gaiye-bŏko-be
bamboo	ô-da-le
banana	yolô-le
bark	gangwi
barb (arrow)	tome
basket	tô-le
beard	öngu-bo-de
beat (to)	yŏkwŏ-be
beetle	todanchu
belt (round)	m-are-kwa-ge (my b.)
belt (broad, flat)	m-ino-kwe (my b.)
binder	tu-kwe
bite (to)	öni-baga-be
black	be
blood	gache-nge
blow (to)	a-kwŏbŏ-be
boil (to)	tamboi-(be)
bone	ichin-da-nge
bone (human)	uni-da-nge
bow	a-ai
break (to)	ng-i-kwa-be (you b.)
breast	ng-a-ka-ge (your b.)
breathe (to)	kwaiŏ-be
broom	da-ge
bucket (wood)	ukwi
bucket (bamboo)	kubuda-nge
butterfly	bebe-le
call (to)	eng-yŏ-be, önai-waba-be
cane	tati
cane-necklace	i-deda-le
canoe	da-nge
cast away (to)	yŏbobine-be
cheek	ng-ig-boi (your c.)
chin	ibi-da-nge
clam	taga-le
clap (to)	abo-bana-bekwe-be
clay (white for smearing.)	we
cloud	baije
cocoanut	da-ge (? wood, tree)
cold (to feel)	ungi-te-be
come (to)	inai-ŏba-be, önu-kwange-me
copulate (to)	ng-ŏ-tôlô-be (you c.)
cough	udu-ge
crab	kagaia
creek	kuai
cyrena-shell (scraper)	totu-le
dance	öno-la-ge
dead (to be)	bechame-me
deaf	ik-aibene
dish (wooden)	da-nge- (wood) tŏba-nge
drink (to)	injo-be
dugong	twowe
ear	ik-kwa-ge
earth	tutano
eat (to)	eni-lokwale-be
ebb tide	ga-de
embrace	ku-ge
eye	uni-jeboi
fall (to)	i-teka-be
fastening (a)	gwi-kwe
feather	gô-de
fern	tomojai, lakakai
fever (to have)	ungi-te-be
fight (to)	önu-kwe-be
finger	ome
fire	tuke
fish	cho-ge
fist	o-beke
flip (to)	öni-tôtôge-be
flood tide	kobakwe-le
fly	ngönoi
food (to take)	ng-i-da-be (you t. f.)
foot	m-uge (my f.)
forbid (to)	gobokwe-be
glad (to be)	a-kiokŏ-be
go (to)	öni-tŏto-be (come), bujio-be (walk)
"God"	Ulu-ge
good	i-wado
grass	tokwongŏye
green	totanda-nge
gun	uni-nye
hair	m-ode (my h.)
hand	m-ome (my h.)
head-dress (cane)	ng-i-deda-le (your h. d.)
heavy (to be)	ng-a-tukwô-be (you are h.)
hip	öni-boi
hiss	ng-ik-iki (you h.)
hit (with arrow)	gai-be
honey	tanjai
hook (for fish)	tome
hop (to)	ichin-kwôle-be
hot (to be)	jonjome-be
how much ?	chiŏ ?

hum (to)	gojai
hungry (to be)	angi-ai-me
hut	bedai
I, my	mi
Indian (an)	i-nene
iguana	giti
iron (knife)	lea
jawbone (human) ornament	ang-bo-de
jump (to)	akwa-tokwa-be
kick (to)	öni-tekwôme-be
kiss (to) (? smell)	nyônyô-be
knee	m-ola-ge-(my k.)
kneel	öno-lakwöchö-be
laugh (to)	ng-eng-ema-be- (you l.)
leaf	be-be (to be flat)
lick (to)	ng-i-tome-be (you l.)
lie down (to)	ng-ainyi-be (you l. d.)
lip	öngu-me
lizard	kô-ge
man	uni-agi-le-(married m.)
mangrove	tun-da-nge (*tun* tree)
mangrove fruit	kwea
marry (to)	ini-a-be
mat (sleeping)	emai
micturate	ö-chölö-be
moon	chile-me (to be bright)
mouse	ala-nge
much	liwa-nga
murder (to)	ôlôlaji-be
nail	m-obeda-nge (my n.)
nautilus-shell (cup)	gaai
navel	öni-kwa-le
neck	öna-ngito
necklace	m-a-ngitoke (my n.)
net	chi-kwe
nose	uni-nyaiboi
orchid	köyö
ornament (of shavings)	kwibo-le
outrigger	i-bedu-ge
paddle	taai
pandanus fruit	ba-le
path	iche-le
peel	gangwi
pig	kwi
pinch	öni-gini-be
prick	öni-takwa-be
pot (cooking)	buchu (*tô-le*, its case)
quick, be	ing-kö!
rain	gujö-nge
red ochre	alame
red wax	kwengane
resin	mone
ringworm	jwichwi
rope	kwôla-ge
rub (to)	eb-ele-be
run (to)	akwe-bele-be
saline	ngie
saliva	ina-kwe-nge
salt	inje
sand	belai
scar	öni-bare
scratch (to)	akwe-ö-be
sea	i-nge (water)
shampoo (to)	ine-ö-be
shark	kadu
sharp	giechare
sharpen (to)	totôkwe-be
shave	öno-tale-be
shell	todandwi
shoot (arrow)	gai-be
sing (to)	ng-ö-gaba-be(you s.)
sit (to)	unan-tökö-be
skin	gangwi (peel)
sky	bengo-nge (what is flat)
sleep (to)	omo-ka-be
small	baiai
smoke	eno-taboi
snake	tomogwi
snake (sea)	tebu-le
sneeze	e-chi-be
sore (a)	öni-bai
spill (to)	ng-i-bu-be (you s.)
spine	öno-noda-kwoi
spitting	una-kwa-nge
sprinkle (to)	una-nadi-be
squeak (to)	gilako-be
squeeze (to)	une-ge-be
stand	doka-be
stomach	önan-nga-nge
stone	taiyi
stool (to)	öni-yu-be
stretch (to)	ina-kwombwoke-be
stretch (to s. oneself)	ng-i-götö-be (you s. yourself)
strike (to)	kwöke-be
string (to)	e-be
stroke (to)	una-öe-be
sun	eke
surf	balame
swallow (a)	tugede-le
sweep (to)	tote-be
swim (to)	kwane-be
take away (to)	ng-eakingkö-be (you t. a.)
take hold (to)	ng-enge-be (you t. h.)
tattoo (to)	ng-ulukwone-be (you t.)
tear (to)	i-dokwö-be
testicles	öni-kwö-ge
thorn	tundankie
throat	ö-ngito
throw	wötaikwô-be
thunder	ölu-ge ("God")
tiptoe (to be on)	önu-jagaiö-be
tongue	alan-da-nge
tooth	m-a-kwe (my t.)
torch	to-kwe
tray (for food)	toba-ge
tumble (to)	i-teka-be
turtle	nadela-nge, takwatoai
turtle eggs	kwagane
tusk (pig)	a-kwe
umbrella (leaf)	o-modu
untie (to)	i-lebu-be
vomit (to)	ö-bulö-be
water	i-nge
wax (white bees')	chileme
weep (to)	wana-be
whetstone	tijiö-be
whisk (for flies)	tomo-ge
whistling	öni-anga-le
white	tonkute
wife	uni-au-le
wind	totôte
wound	öni-ba-le
yawn (to)	öna-langötö-be
yes	une-laije

APPENDIX C.

THE FIRE LEGEND IN THE BOJIGNGIJI GROUP.

(The Bea Version is already given in the Text.)

BALAWA VERSION.

Dim-Dôra—le rita *Keri-l'ong-tôwer — te Puluga* *l'i toago* *choapa l' — omo*
(a Man) long-ago (a Place) — by God his platform fire bringing

— *kate* | *ong ik* *akat-pôra* *puguru — t l' — a — re* | *Bolub* *ka* *Tarkôr*
— was | he taking all—men burn — t di — d | (a Man) and (a Man)

ka *Bilichau* *ongot oto — jurugmu* *— t — ia* | *ongot* *at — yôkat* *mo*
and (a Man) they in-the-sea-wen — t —did | they fish becom-

— *nga* | *ongot oaro — tichal-ena* *— te* *Rokwa-l'ar-tonga-baroij— a* *oko — dal*
— ing | they carry-taking— by (a Place) -village— in fire-mak-

— *nga l' — a — re*
— ing di — d

Portman's Rendering.—Dim-Dôra, a very long time ago, at Keri-l'ong-tôwer, was bringing fire from God's platform. He taking the fire, burnt everybody with it. Bolub and Tarkôr and Bilichau fell into the sea and became fish. They took the fire to Rokwa-l'ar-tonga village and made fires there.

BOJIGYAB VERSION.

Tôl-l'oko-tim— an Bilik l'ong — pat — ye | *Luratut* | *l'ong at* *ab— lechi — nga* |
(a Place) — in God sleep — did | (a Bird) | he fire bring — ing |

Luratut l'ong — di — ye | *kota ong Bilik l'ab — biki — ye* | *kota Bilik l'ong — konyi*
(a Bird) seiz — ed | then he God burn — t | then God awaken

— *ye* | *Bilik* | *l'ong at li — ye* | *ong e* *Luratut* *l'oto — toi-chu — nga* |
— ed | God | he fire seiz — ed | he then (a Bird) (with) fire-hitt — ing |

kota kol *ong e* *Tarchal* *l'ote — toi-chu — ye* | *Chalter* *l'ong— di —ye* |
then again he then (a man) (with) fire-hit — did | (a Bird) seiz — ed |

ong Lau-Cham — len da — nga | *Wôta-Emi — en ota* *Lau-Cham* | *n'ong o — kadak — nga.*
he ancestors — to giv — ing | Wôta-Emi — in then ancestors | they fire-mak-ing.

Portman's Rendering.—God was sleeping in Tôl-l'oko-tima. Luratut went to bring fire. Luratut caught hold of the fire, then he burnt God. Then God woke up. God seized the fire. He hit Luratut with the fire. Then again he hit Tarchal with the fire. Chalter caught hold of it. He gave it to the ancestors. Then the ancestors made fire at Wôta-Emi.

JUWAI VERSION.

Kuro-t'on-mik — a *Mom Mirit —la* | *Bilik l'ôkô—ema— t* | *peakar* *at — lo* *top*
(a Place) —— in Mr. Pigeon | God slep — t | wood fire—with stealing

—chike *at* *laiche* *Lech* *—lin* *a* | *kotak a* *ôko—kodak* *— chine at — lo*
—was fire the-late (a Man) —to he | then he fire-make — did fire— with

Karat-tatak—emi *—in*
(a Place) —at

Portman's Rendering.—Mr. Pigeon stole a firebrand at Kuro-t'on-mika, while God was sleeping. He gave the brand to the late Lech, who then made fires at Karat-tatak-emi.

KOL VERSION.

Tôl-l'oko-tim — en Bilik —la pat —ke | *Luratut—la* *Oko-Emi —t* *at kek — an* |
(a Place) — in God asleep — was | (a Bird) (a Place)—in fire too — k |

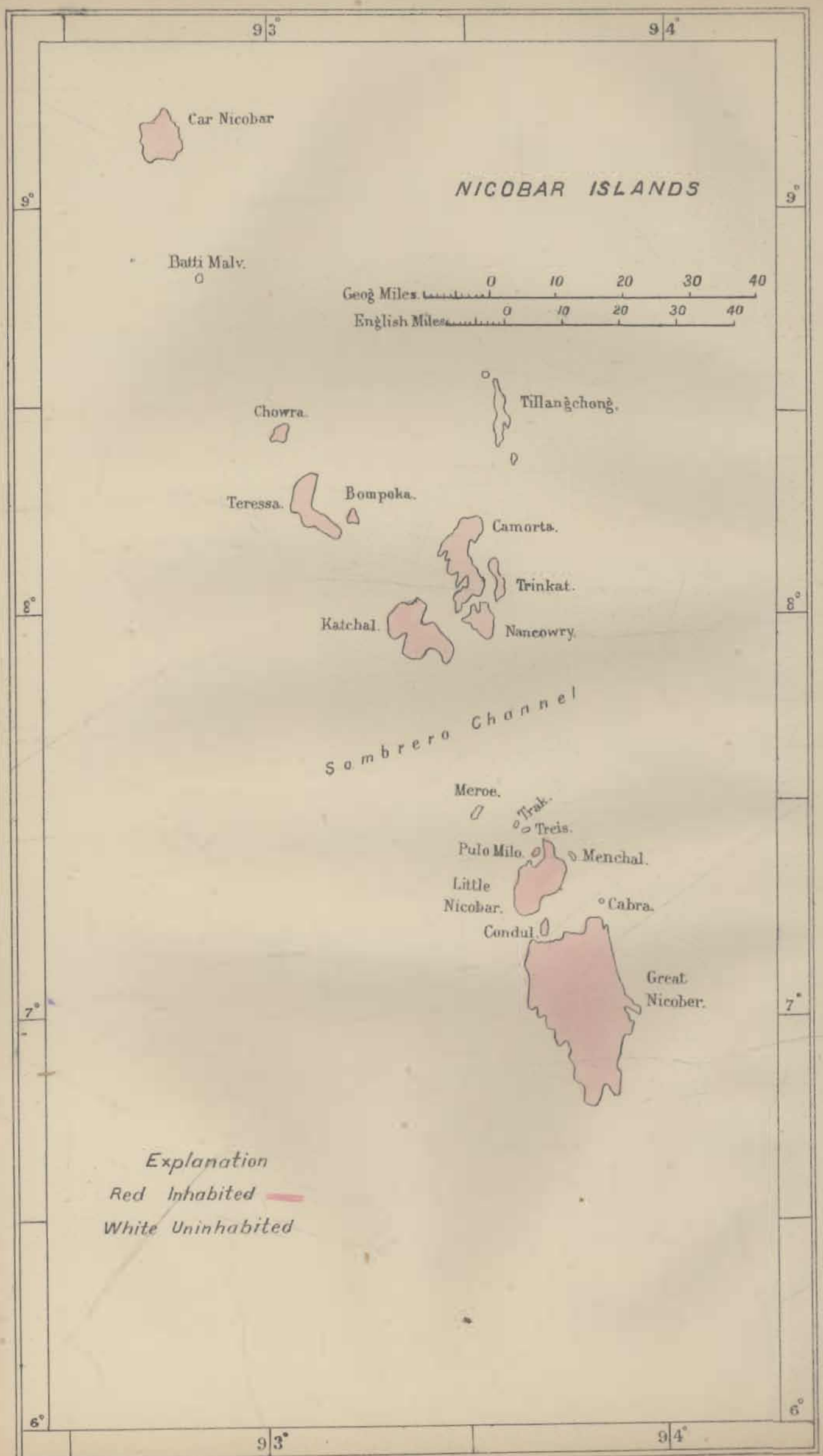
Kôlotat —ke | *lin* *l' —a—chol — an Min-tong-ta— kete* | *Min-tong-ta — kete -lak*
(a Man) —was | by (he) —wen — t (a Place) — to | (a Place) — to -by

l'—ir —— bil —an | *Kôlotat l'ir— pin* *l'ir—dôk —an* | *k'irim—kôdak —an* |
(it) —out-wen—t | (a Man) charcoal break—did | fire-make-did |

n'a *n'otam—tepur—an* | *at— ke n'ote —tepur—an* | *Min-tong-tôk-pôroich —*
they alive—became | fire—by (they) —alive —became | (a Place) village —

in *Jangil* | *n'a* *l'oko—kôdak — an* |
in ancestors | they fire-make—did |

Portman's Rendering.—God was sleeping at Tôl-l'oko-tima. Luratut took away fire to Oko-Emi. Kôlotat went to Min-tong-ta (taking fire with him from Oko-Emi). At Min-tong-ta the fire went out. Kôlotat broke up the charred firewood and made fire again (by blowing up the embers). They (the people there) became alive. Owing to the fire they became alive. The ancestors thus got fire in Min-tong-tôk village.


93°
94°
NICOBAR ISLANDS
Car Nicobar
Batti Malv.
9°
8°
7°
6°
Geog Miles 0 10 20 30 40
English Miles 0 10 20 30 40
Tillanchong.
Chowra.
Teressa.
Bompoka.
Camorta.
Trinkat.
Katchal.
Nancowry.
Sombrero Channel
Meroe.
Trak.
Treis.
Pulo Milo.
Menchal.
Little Nicobar.
Cabra.
Condul.
Great Nicober.
Explanation
Red Inhabited
White Uninhabited

PART II.

THE NICOBARESE.

CHAPTER I.

THE CENSUS.

Former Census—Conditions of taking Present Census—Impossibility of a Synchronous Census—The Shom Pen estimated—Control of the Operations—Census Tours—Method of Enumeration—Officers' Diaries—Method of estimating the Shom Pen—Attitude of the People—The Returns of the Nicobarese—Movement and Division of the People: Population Stationary—Comparison of Census, 1883 and 1901—Density by Islands—Density by Dialects—House Population—Nicobarese Villages and Chiefs—Village Population on Different Islands—Points of Defect in Enumeration—Foreign Residents.

Former Census.—In the course of 1883 a careful enumeration was made of the Nicobarese for purely local reasons unconnected with any Indian Census by Mr. Man and the late Mr. de Roepstorff, who was an officer of the Andaman and Nicobar Commission. Their labours on that occasion proved of the greatest use during the Census Operations of 1901.

For parts of the Nicobars the Census of 1883 was so carefully taken that in Appendices A and B the tables then prepared are printed, this being the only record of Census work which nearly synchronised with the general Indian Census of 1881. It gives a good deal of information valuable to the student not otherwise procurable about the Islands. Wherever practicable, the results of 1883 are compared in this Report with those of 1901.

The Census of 1883 came about thus: In 1872, the late Field Marshal Sir Donald Stewart, when Chief Commissioner of the Andaman and Nicobar Islands, made certain proposals for the government of the Nicobars, which eventually fell through, and these necessitated some sort of knowledge of the numbers and situation of the population. His scheme was developed by his successors into one of colonising the Nicobars with Malays and Chinamen, and this, too, fell through, but in the course thereof, in 1883, as complete a Census as practicable was ordered by the then Chief Commissioners, Colonel T. Cadell, V.C., and Major General M. Protheroe, C.B., C.S.I., and, considering the difficulties and novelty of the work, the orders were admirably carried out by the two officers of the Commission above-mentioned. They also produced two good Reports on the islands, such extracts of which as are of permanent value in regard to the knowledge of the Nicobars are attached in Appendix H and in Appendix A to Chapter II.

Conditions of taking Present Census.—The conditions under which a formal Census of the Nicobarese was attempted in 1901 were the following:—

The Nicobarese inhabit islands that are situated in groups at considerable distances in some cases from each other. Thus, to enumerate the inhabited islands only, Car Nicobar lies by itself, 41 miles to the north of any other inhabited island of the group. Then comes Chowra, 6 miles north of Teressa and Bompoka, situated close together. East and south 12 miles distant of these lie Camorta, Trinkat and Nancowry, forming a close group creating between them the magnificent harbour of Nancowry. To their west, 4 miles distant, and to the south of Teressa, lies Katchall. Again, 30 miles to the south of them lies the group of Great and Little Nicobar with Koudul and Pulo Milo.

The inhabitants of these islands are thus divided off into groups, which have little communication with each other, and do not, in fact, speak tongues that are altogether mutually intelligible. The groups thus created are (1) Car Nicobar, (2) Chowra, (3) Teressa and Bompoka, (4) Central (Camorta, Trinkat, Nancowry, Katchall), (5) Southern (Great and Little Nicobar, Kondul, Pulo Milo), and in the interior of the Great Nicobar is a separate tribe, the Shom Pen, usually at feud with the people on the seaboard.

The natural indolence, and—in such a matter as the Census—the hopeless untrustworthiness of the people themselves made it imperative to seek outside agency for their enumeration, and as there are only two places at which there are Government Agencies (Natives of India),—Car Nicobar and Nancowry Harbour—*the Census could only be taken in hand by a party touring in the local* Government steamer.

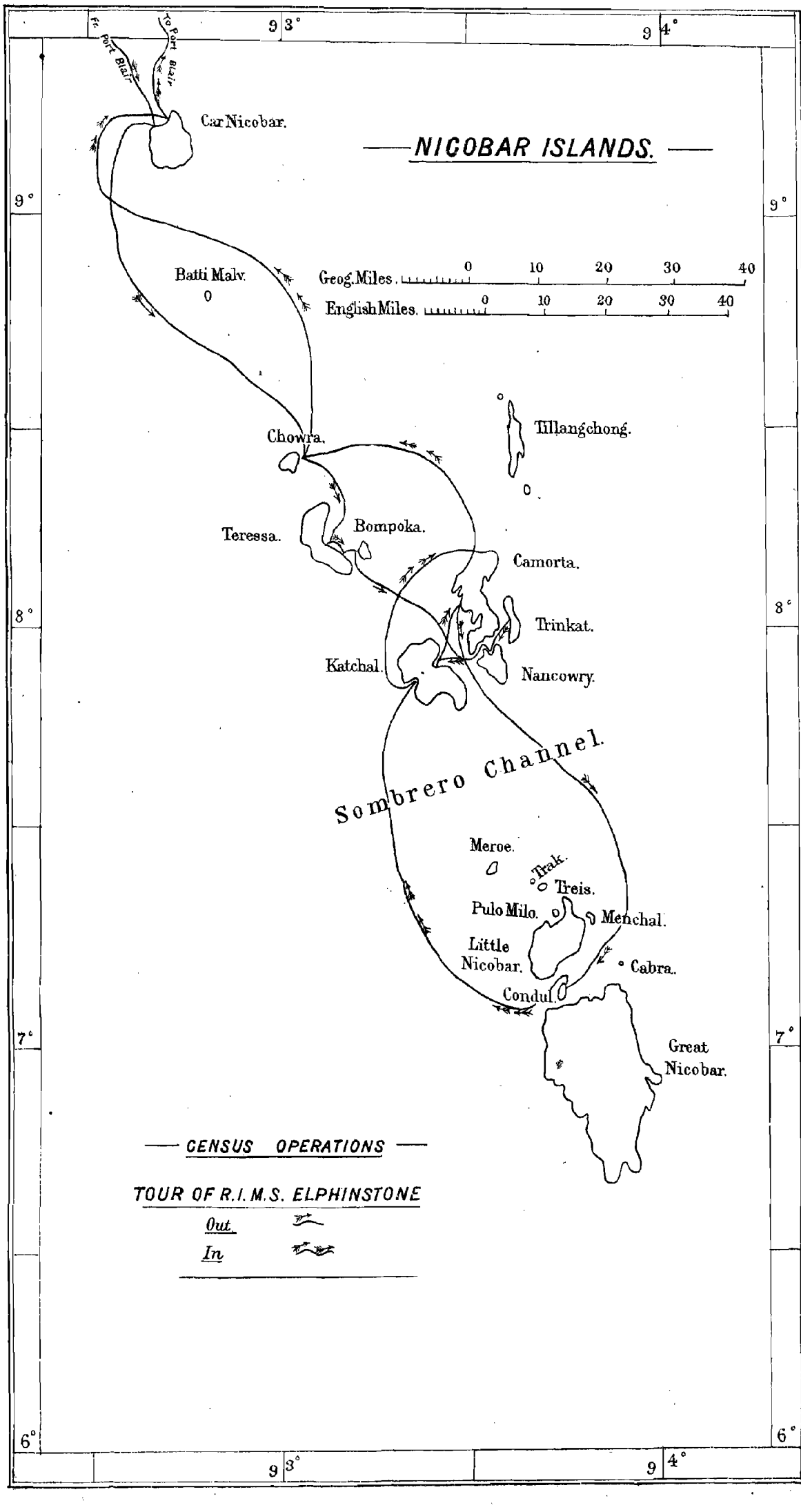
Impossibility of a Synchronous Census.—Thus, though there were no special difficulties in getting at the population approximately on each island, except in the case of the Shom Pen in the Great Nicobar, it was quite impossible to attempt a synchronous Census, and, indeed, as far as accuracy of enumeration is concerned, there was no special need for one.

The Shom Pen estimated.—The only people at all likely, except the Shom Pen of the interior of the Great Nicobar, to give trouble were the inhabitants of Chowra, and they, fortunately, on this occasion were not in the truculent mood they too often exhibit. But the Shom Pen had to be estimated, not on account of any special hostility to strangers, as in the case of the Jarawas of the South Andaman, but because of their usually hostile relations to the people of the Coast, who never go near them as a rule and in any case have as little to do with them as possible. They, therefore, would give no assistance and without such it would require a carefully organized expedition to hunt up the Shom Pen in so large, so mountainous, so densely wooded and unhealthy an island as Great Nicobar.

The only opposition experienced by the Census party was afforded by one chief who had been troublesome on previous occasions in Car Nicobar. He influenced a few others, but not, fortunately, to an extent to vitiate the Census operations.

Control of the Operations.—In the circumstances, as in the case of the Andamanese, I took control of the Nicobarese Census into my own hands and selected the same three officers, Mr. E. H. Man, C.I.E., Major A. R. S. Anderson, I.M.S., and Mr. H. H. D'Oyly, for the purpose. Lieutenant Wilson, R.I.M., the Commander of the Government steamer, was also requested to assist where he could, and did render effectual assistance throughout. Mr. Man is practically the only authority on the Nicobarese, and his unique knowledge of the people, his previous Census of some of them in 1883 undertaken for local reasons, and the respect for him and trust in him displayed by Nicobarese of all kinds, pointed him out clearly as the leader of the Census Expedition.

The Census Tours.—A very careful plan was drawn up for the Census tours, and each officer was told off to special duties throughout it, so far as these could be foreseen, liberty being, of course, given to the leader to change details to any necessary extent as weather and uncontrollable circumstances might dictate. The necessity for great care and detail in drawing up the plan of operations was caused by the very different conditions obtaining in the islands. On Car Nicobar, Chowra and Teressa the population is thick, the villages large and under chiefs and landowners; on the remaining islands the villages are very numerous and small, and either individually or collectively in groups acknowledge one chief. On Car Nicobar the local agent, Mr. V. Solomon, was quite competent and influential enough to fill in the Census forms, and arrangements for handing them over to him were accordingly made. In the varying actual conditions of Chowra, Teressa, Bompoka, Camorta, Trinkat, Nancowry and Katchall, and the Great and Little Nicobars, the people were enumerated on a plan separately adopted for each. On Chowra, Teressa, Camorta, Trinkat, and Katchall the operations involved great physical exertion in the hottest and most trying climate known to myself.


NICOBAR ISLANDS.
9° 3°
9° 4°
Fr. Port Blair
To Port Blair
Car Nicobar.
Batti Malv.
Geog. Miles. 0 10 20 30 40
English Miles. 0 10 20 30 40
Chowra.
Tillangchong.
Teressa.
Bompoka.
Camorta.
Trinkat.
Katchal.
Nancowry.
Sombrero Channel.
Meroe.
Trak.
Treis.
Pulo Milo.
Menchal.
Little Nicobar.
Cabra.
Condul.
Great Nicobar.
8°
7°
6°
CENSUS OPERATIONS
TOUR OF R.I.M.S. ELPHINSTONE
Out
In

Method of Enumeration.—The actual methods of enumeration adopted were as follows: Two sorts of forms were devised—one for the large villages on the thickly populated Car Nicobar, and the other for the small villages on the remaining thinly populated islands. That for Car Nicobar showed the name of the village and its chief, the name of the sub-chiefs, *i.e.*, landowners, number of huts and of men, women, boys, and girls. That for the remaining islands, the name of the island, serial number of the village, the name of the chief and the number of huts, and of the men, women, boys, and girls. On Car Nicobar the landowners were relied on for furnishing information as to the people in each hut, and on the remaining islands either the village chief or the owner of the hut. On Car Nicobar the Agent, Mr. Solomon, took the Census; on Chowra, Teressa, Bompoka, and in the Central Group Mr. Man and his assistants took it; in the Southern Group Mr. Man took it himself alone. The detailed orders for all the islands, except Car Nicobar, will be found in Appendices D, E and F.

By the means employed it was intended to procure the following information: The names of all the chiefs and the extent of the authority of each, and besides the number of the people, the number of the huts, and the average number per hut. Also, in the case of the thickly populated island of Car Nicobar, the extent to which the sub-chiefs or landowners existed, and the extent of their authority as shown in Appendix J. More than this I did not think it wise or practicable to attempt. I strongly suspect that the conditions of Chowra are identical with those of Car Nicobar and this is a point that might be advantageously taken up at the next opportunity.

Officers' Diaries.—Every officer was required to keep a diary, in which he was to enter everything that it might, in addition to Census matters, be of interest to collect about the country and the people. Every officer was also supplied with the results of Messrs. de Roepstorff's and Man's Census of 1883 as a guide and with detailed maps showing the name and situation of every known village. The chief results of these enquiries are recorded in the officers' reports attached in Appendix G.

Method of estimating the Shom Pen.—The basis for estimating the Shom Pen is their perennial feud with the coast men, especially with Dang's villages to the south, east and north of Great Nicobar. It would appear from these feuds that of the two kinds of inhabitants of the Great Nicobar the coast men cannot properly hold their own with regard to the Shom Pen, who are the aggressors in nearly all the raids. From this one would assume an inequality in population, and it is also thought that the Shom Pen would hardly undertake their frequent aggressive raids unless they felt themselves to be decidedly the stronger of the two parties. They also occupy a much greater area of country. Taking all things into consideration it was thought that the safest estimate for them was four times the present reduced population of the Coast as ascertained at the Census.

This estimate gives us 348 as the Shom Pen total figure, but it divides them thus:—

Men.	Women.	Boys.	Girls.
168	140	24	16

Later on will be found reasons for this impossible discrepancy in the returns between adults and children and for considering that the totals should be retained, but that the internal four figures should be approximately re-adjusted, so as to be equal, with a slight preponderance in favour of males, thus:—

	Women.	Boys.	Girls.
90	84	88	86

The gross estimate for the Shom Pen has the support of density for area occupied. Thus, the figure for the Southern Group of Islands excluding the Shom Pen (Great and Little Nicobar, Kondul and Pulo Milo) is about 1 per square mile, and the figure for the Shom Pen works out to 1½ per square mile.

Attitude of the People.—Except in the case of the one village chief already mentioned in Car Nicobar, no opposition to the Census was met with, but at the same time no active assistance was forthcoming. This last assistance was not expected with so lazy and indifferent a race as the Nicobarese, and the

Census officers had to trust to their own ingenuity in getting as accurate figures as possible out of the people. As regards the adult male population there is no need for apprehension as to reasonable accuracy, but the people would be naturally much more careless as to correct statements in regard to women and children, and the Census figures show that these undoubtedly require re-adjustment.

Returns of the Nicobarese.—As in the case of the Andamanese, no change was made between the preliminary and final figures for the Census of the Nicobarese, and they were returned by dialects as under:—

NICOBARS.

Census Figures by Dialects, 1901.

DIALECTS.	ADULTS.		CHILDREN.		TOTAL.
	Male.	Female.	Male.	Female.	
	No.	No.	No.	No.	No.
Car Nicobar	1,126	999	704	622	3,451
Chowra	172	178	100	72	522
Teressa	208	190	174	130	702
Central	409	398	152	136	1,095
Southern	81	73	18	20	192
Shom Pen	168	140	24	16	348
	2,164	1,978	1,172	996	6,310
Foreign Traders	201	...	...	...	201
TOTAL	2,365	1,978	1,172	996	6,511

NOTE.—The dialects of Car Nicobar and Chowra are spoken on those Islands only; that of Teressa on Teressa and Bompoka; the Central Dialect on Camorta, Trinkat, Nancowry, and Katchall; the Southern Dialect on Pulo Milo, Little Nicobar, Kondul, and Great Nicobar (Coast); the Shom Pen in the interior of Great Nicobar.

Movement and Division of the People: Population Stationary.—Island by island, the Census gave figures, which can be compared with those procured by Messrs. Man and de Roepstorff in 1883, showing the population to be stationary, as one would expect it to be on the theory already expounded, with reference to the Andamanese, as to the causes which govern the growth and maintenance of the population of savage and semi-savage peoples.

The compared figures also go to corroborate what is known as to the movement of the population amongst themselves. There has lately been an emigration from over-crowded Chowra to Camorta North, and many people both in Nancowry and Camorta own property in Katchall East, and villages and cocoanut plantations are owned both in Trinkat and Nancowry by the same men. Hence it is quite a chance on which of adjacent islands owners of property on both will be found on any given day. There is also communication between the coast men of the Southern Group and Katchall West, and, similarly, the people of Great Nicobar will bodily "visit" Kondul, and so will those of Little Nicobar visit Pulo Milo, and *vice versâ*. Indeed, Kondul is an appanage of Great Nicobar East, and so is Pulo Milo of Little Nicobar.

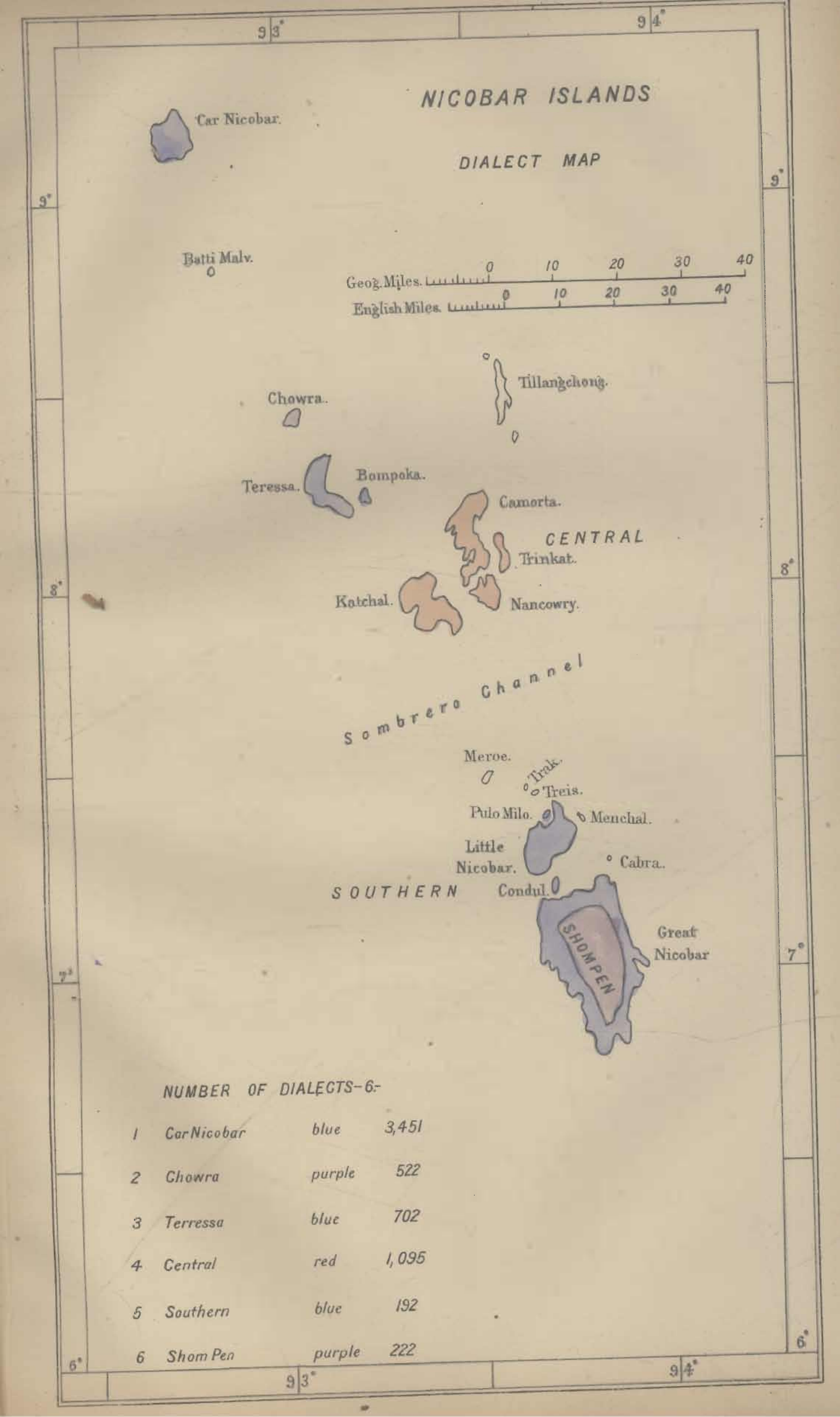
So, though the dialect test is perhaps the best division of the Nicobarese into six varieties, by habits of intercommunication they may be well divided into Northern or Car Nicobarese, the Central Nicobarese (Chowra to Nancowry), Southern or Great Nicobarese, and the isolated Shom Pen of Great Nicobar.

Taken thus the population has been stationary between 1883 and 1901. Stationary in Car Nicobar, slightly increased in the Central Groups, and slightly decreased in the Southern Groups by internal movement. As regards individual islands, those with stationary population may be taken as Car Nicobar, Bompoka, Nancowry, Little Nicobar, Pulo Milo. Those with an increased population are Teressa, Camorta, Trinkat, Katchall, Kondul. Those with a decreased population are Chowra and Great Nicobar.

The Nicobarese can also be divided into three Groups, Northern, Central, and Southern, by language and a sharply-marked custom. The Northern (Car

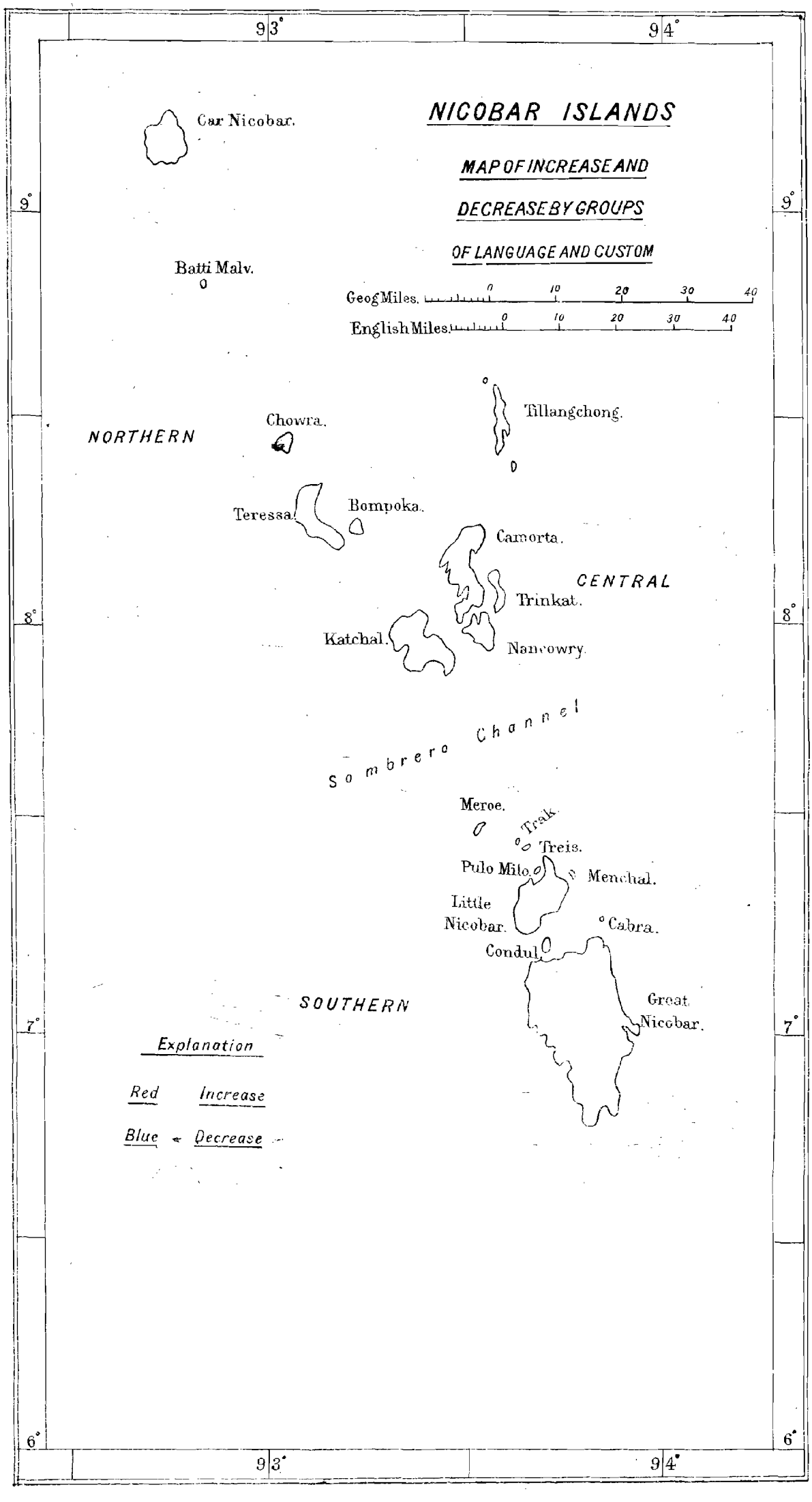
NICOBAR ISLANDS

DIALECT MAP



NUMBER OF DIALECTS–6:-

1	Car Nicobar	blue	3,451
2	Chowra	purple	522
3	Terressa	blue	702
4	Central	red	1,095
5	Southern	blue	192
6	Shom Pen	purple	222

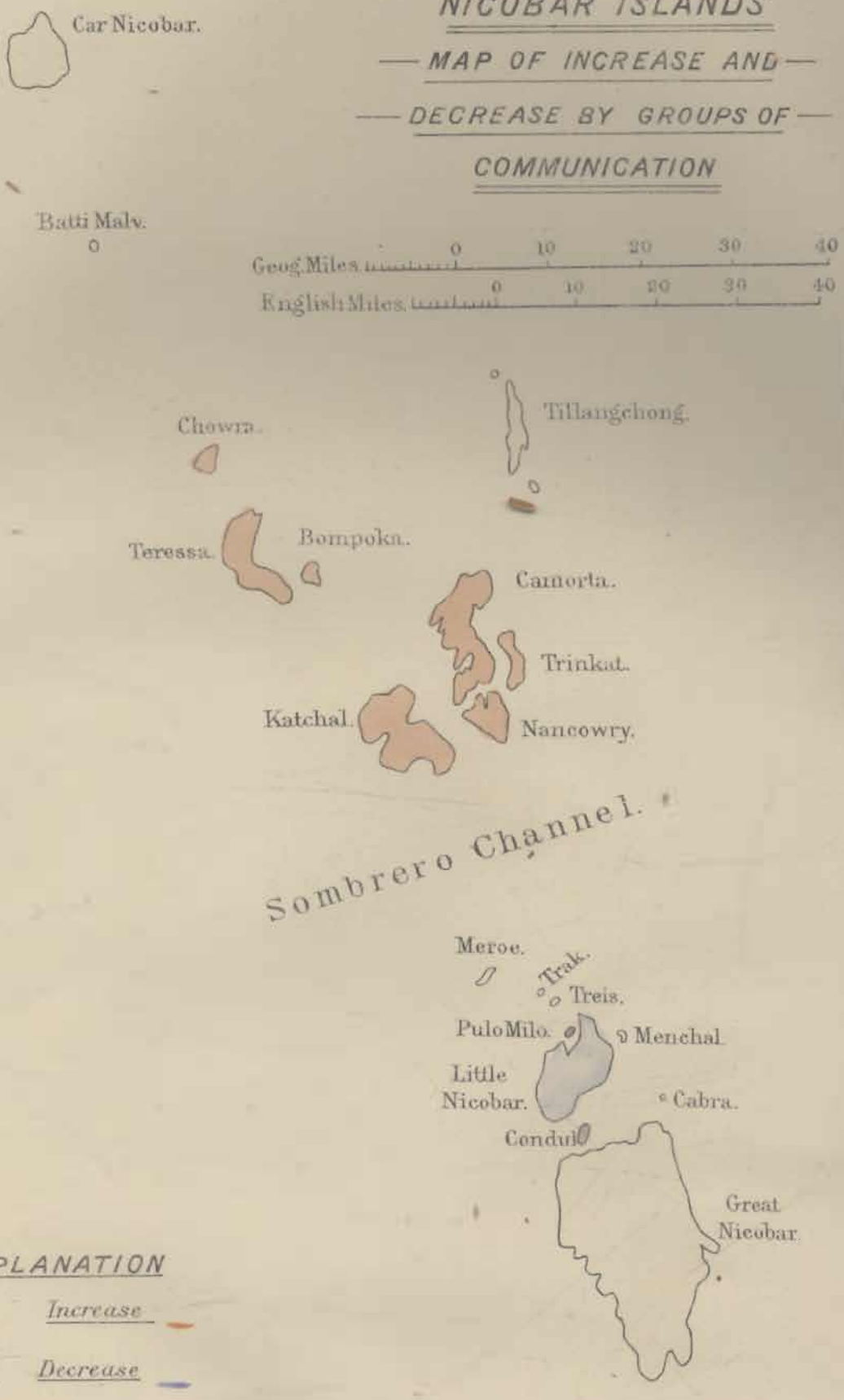

93°
94°
9°
8°
7°
6°
NICOBAR ISLANDS
MAP OF INCREASE AND
DECREASE BY GROUPS
OF LANGUAGE AND CUSTOM
Car Nicobar.
Batti Malv.
Geog Miles. 0 10 20 30 40
English Miles. 0 10 20 30 40
Tillangchong.
NORTHERN
Chowra.
Teressa.
Bompoka.
Camorta.
CENTRAL
Trinkat.
Katchal.
Nancowry.
Sombrero Channel
Meroe.
Trak.
Treis.
Pulo Milo.
Menchal.
Little Nicobar.
Cabra.
Condul.
Great Nicobar.
SOUTHERN
Explanation
Red Increase
Blue Decrease

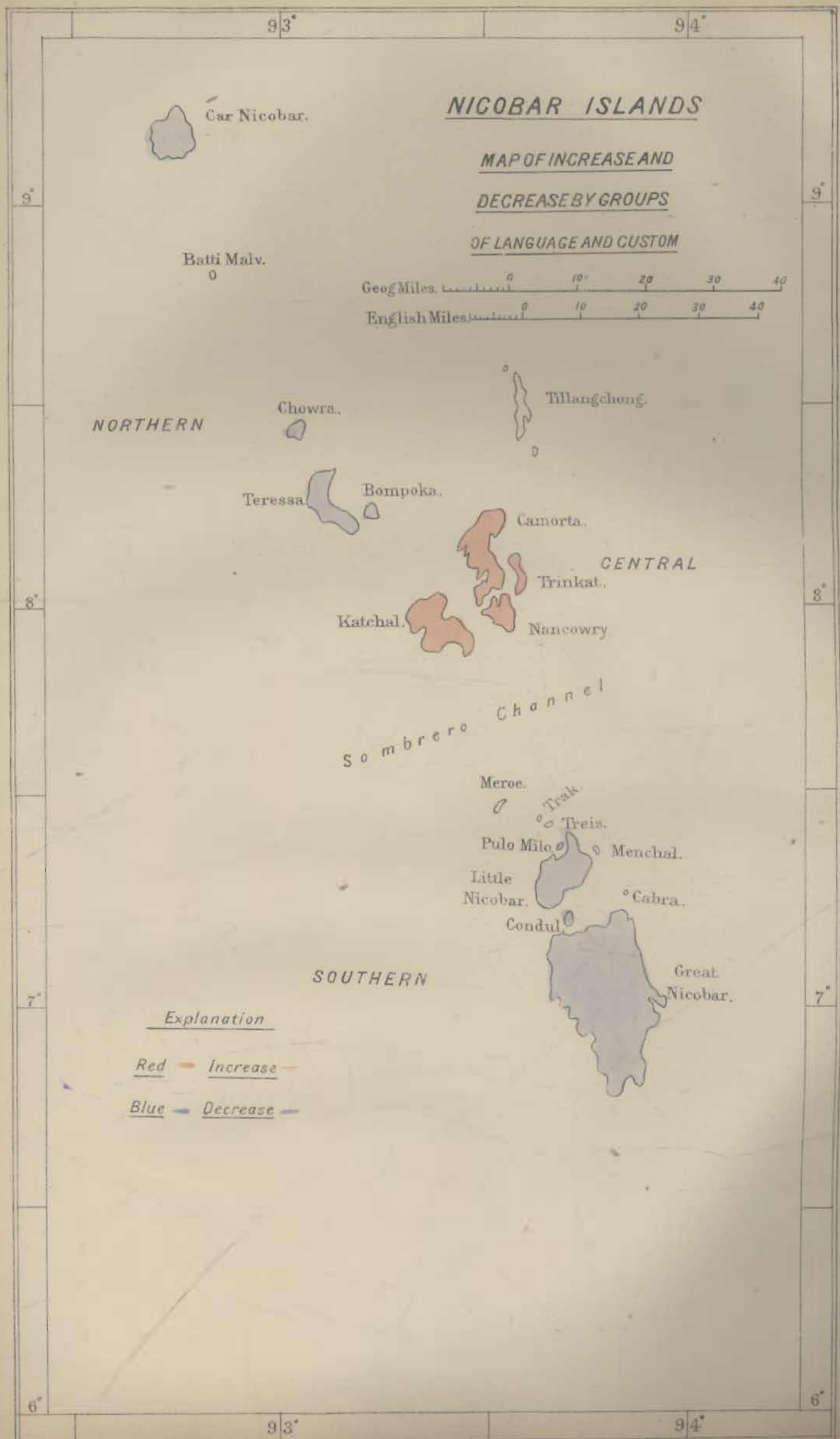
NICOBAR ISLANDS

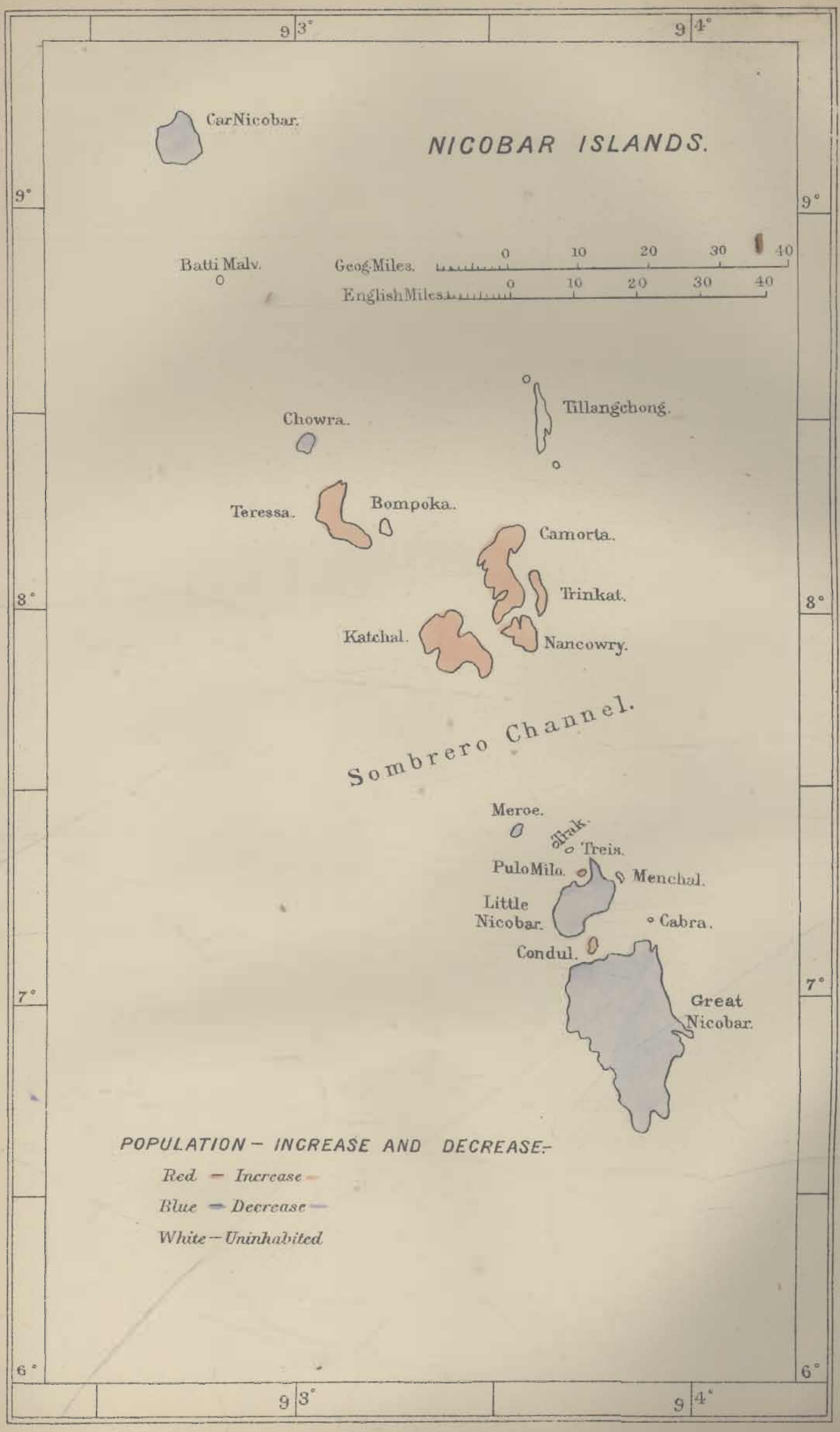
— MAP OF INCREASE AND —

— DECREASE BY GROUPS OF —

COMMUNICATION

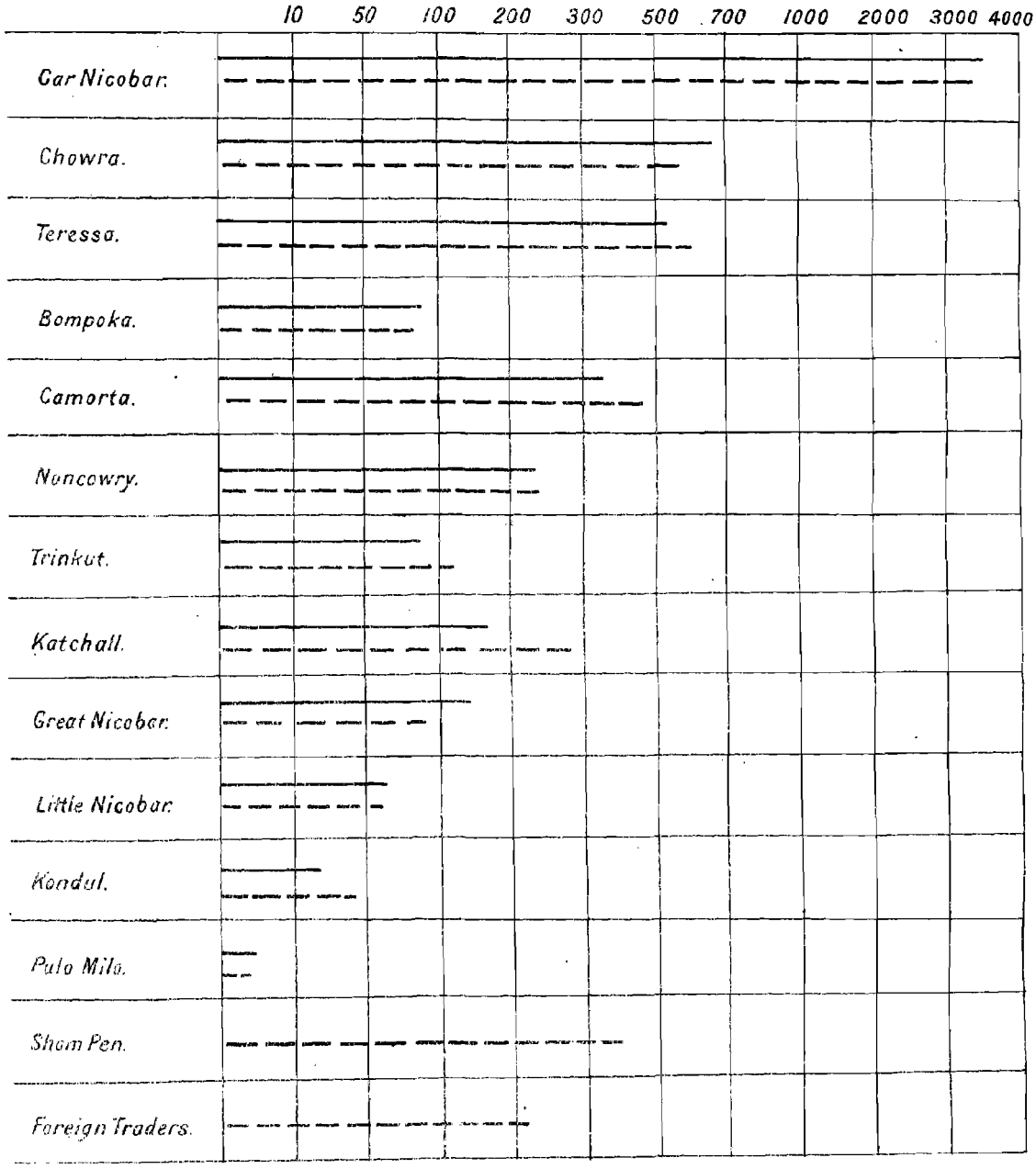



93°
94°
9°
8°
7°
6°
NICOBAR ISLANDS
MAP OF INCREASE AND
DECREASE BY GROUPS
OF LANGUAGE AND CUSTOM
Geog Miles. 0 10 20 30 40
English Miles. 0 10 20 30 40
Car Nicobar.
Batti Malv.
Tillangchong.
Chowra.
NORTHERN
Teressa.
Bompoka.
Camorta.
CENTRAL
Trinkat.
Katchal.
Nancowry
Sombrero Channel
Meroe.
Trak.
Treis.
Pulo Milo.
Menchal.
Little Nicobar.
Cabra.
Condul.
Great Nicobar.
SOUTHERN
Explanation
Red — Increase
Blue — Decrease


NICOBAR ISLANDS.
9° 3°
9° 4°
CarNicobar.
Batti Malv.
Geog. Miles. 0 10 20 30 40
English Miles. 0 10 20 30 40
Tillangchong.
Chowra.
Teressa.
Bompoka.
Camorta.
Trinkat.
Katchal.
Nancowry.
Sombrero Channel.
Meroe.
Treis.
PuloMilo.
Menchal.
Little Nicobar.
Cabra.
Condul.
Great Nicobar.
8°
7°
6°
POPULATION — INCREASE AND DECREASE:-
Red — Increase
Blue — Decrease
White — Uninhabited

NICOBARS.

Diagram of increase and decrease between 1883 and 1901.



1883 ———————

1901 — — — — — — — —

Nicobar, Chowra, Teressa with Bompoka) all speak separate dialects, but they all have the custom of communal disposal of human remains in ossuaries, which the others have not. The Central (Camorta, Nancowry, Trinkat, and Katchall) speak one dialect and so do the Southern (Great Nicobar with Kondul and Little Nicobar with Pulo Milo). Taken thus the figures for 1883 and 1901 show the same result: decrease in the Northern and Southern, increase in the Central Group.

Comparison of Census, 1883 and 1901.—There is a strong local idea that, like the Andamanese, the Nicobarese, too, are rapidly decreasing in population, but I do not think there is any real ground for it and that the Census merely shows that the population is stationary, and, in fact, corroborates a condition that abstract reasoning would point out as normal.

The figures on which the above remarks are made are as follows:—

Census Returns, Island by Island.

	1883	1901
Car Nicobar	3,500	3,451
Chowra	690	522
Teressa	571	624
Bompoka	86	78
Camorta	359	488
Nancowry	222	224
Trinkat	85	102
Katchall	182	281
Great Nicobar	146	87
Little Nicobar	68	63
Kondul	27	38
Pulo Milo	6	4
	5,942	5,962
Shom Pen	...	348
Foreign traders	...	201
		6,511

Census Returns by Groups of intercommunication.

	1883	1901
Northern	3,500	3,451
Central	2,195	2,319
Southern	247	192
	5,942	5,962

Census Returns by Groups of language and custom.

	1883	1901
Northern	4,847	4,675
Central	848	1,095
Southern	247	192
	5,942	5,962

Density by Islands.—There is an enormous variation in density of population in the various inhabited islands from a little over 1 per square mile in Little Nicobar to 174 per square mile in Chowra. The following table gives the detail:—

NICOBARS.

Density of Population in the various inhabited Islands.

	Population.	Area in square miles.	Density per square mile.
Car Nicobar	3,451	49	70
Chowra	522	3	174
Teressa	624	34	18
Bompoka	78	4	19
Camorta	488	58	8
Nancowry	224	19	12
Trinkat	102	6	17
Katchall	281	62	4
Great Nicobar	435	333	1½
Little Nicobar	63	58	1
Kondul	38	½	76
Pulo Milo	4	½	8

Density by Dialects.—Taking the population by dialects, we arrive at the following figures which are of interest as showing how the different kinds of Nicobarese occupy the land :—

NICOBARS.

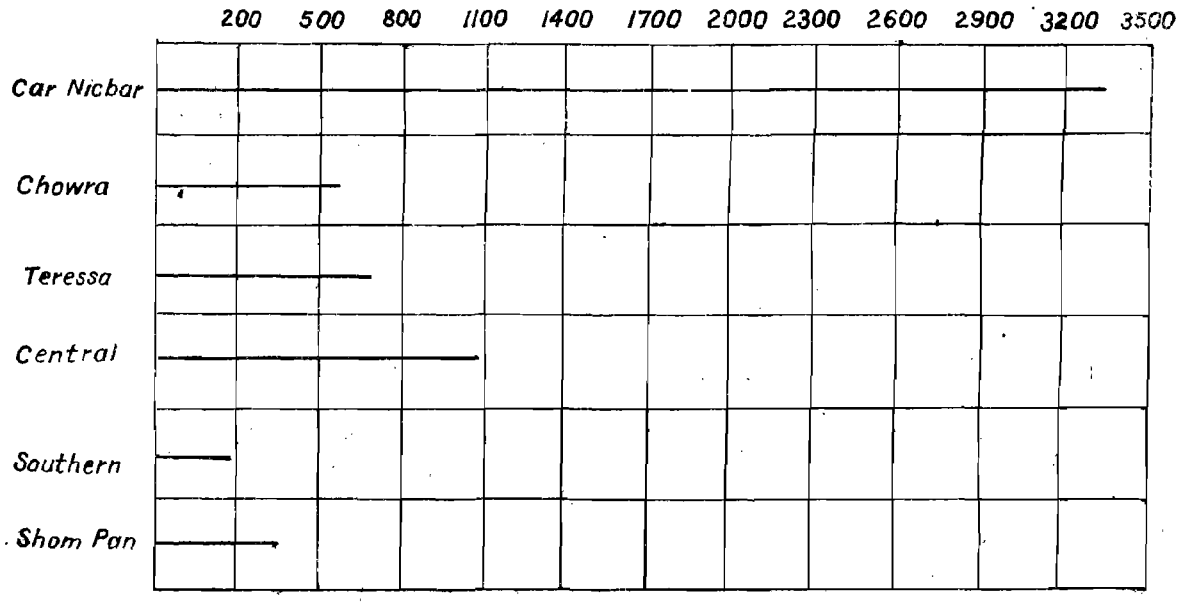
Density by Dialects.

	Population speaking dialect.	Area of occupation in square miles.	Density per square mile.
Car Nicobar	3,451	49	70
Chowra	522	3	174
Teressa	702	38	18
Central	1,095	145	7
Southern	192	170	1
Shom Pen	348	222	1½

The following table also affords a diagram showing the relative importance, by population speaking it, of each dialect.

NICOBARS.

Diagram of Dialects to Population

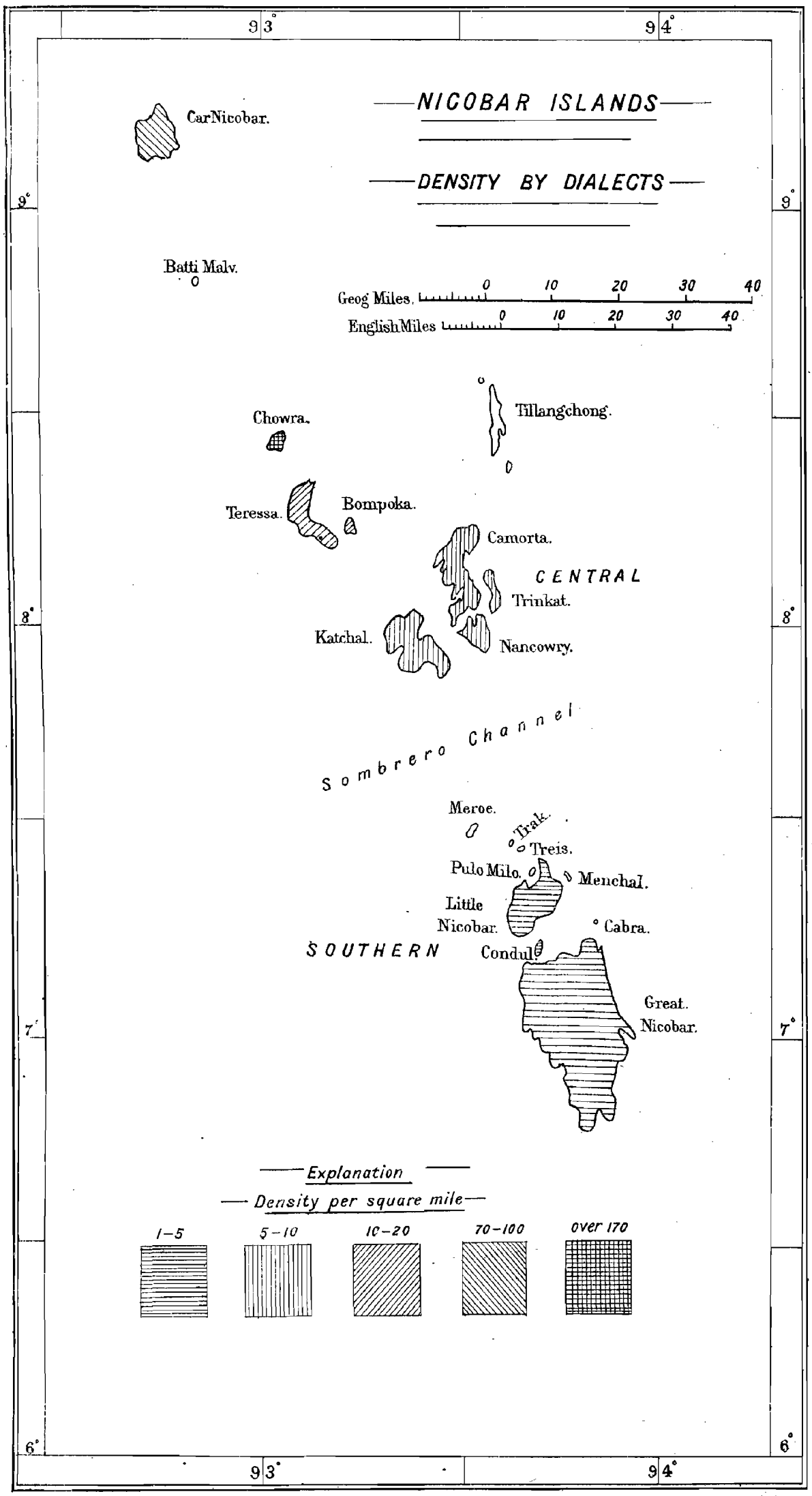


House Population.—The Nicobarese "family" can be gauged by the population in each hut, and the figures show that it is normal in size.

Table of Population per Hut.

Car Nicobar	5
Chowra	4
Teressa	5
Bompoka	4
Camorta	5
Nancowry	5
Trinkat	4
Katchall	4
Great Nicobar	4
Little Nicobar	3
Kondul	4
Pulo Milo	4

These figures should help at the next Census to get at an approximate estimate of the Shom Pen by simply going through their country and counting and mapping huts and then multiplying them by 4 for the population.


93°
94°
NICOBAR ISLANDS
DENSITY BY DIALECTS
CarNicobar.
9°
Batti Malv.
Geog Miles. 0 10 20 30 40
English Miles 0 10 20 30 40
Chowra.
Tillangchong.
Teressa.
Bompoka.
Camorta.
CENTRAL
Trinkat.
8°
Katchal.
Nancowry.
Sombrero Channel
Meroe.
Trak.
Treis.
Pulo Milo.
Menchal.
Little Nicobar.
Cabra.
SOUTHERN
Condul.
Great. Nicobar.
7°
Explanation
Density per square mile
1–5
5–10
10–20
70–100
over 170
6°

Nicobarese Villages and Chiefs.—There are, however, great differences as to the meaning of the term "village" in the various islands, and here the Nicobarese show much difference in habits by "dialect."

Table of average number of huts in a village.

Island.	Huts.	Dialect.
Car Nicobar	58	Car Nicobar.
Chowra	21	Chowra.
Teressa	10	Teressa.
Bompoka	11	
Camorta	3	Central.
Nancowry	4	
Trinkat	6	
Katchall	2	
Great Nicobar	2	Southern.
Little Nicobar	2	
Kondul	2	
Pulo Milo	2	

From the above table it is clear that a village to the people of Car Nicobar, Chowra, and Teressa is a permanent collection of houses or huts, and that in the Central and Southern Groups it is the site of a couple or so of huts, presumably erected by individual owners as fancy or their needs direct. That they are really so erected on impermanent sites the following tables clearly show :—

Table of villages and chiefs in 1883 and 1901.

Islands.	No. of Villages.		No. of Chiefs in 1901.	No. of sites inhabited in 1901 and not in 1883.	No. of sites inhabited in 1883 and not in 1901.
	1901	1883			
Car Nicobar	13	13	13	...	...
Chowra	6	5	6	1	...
Teressa (Teressa)	11	8	10	3	...
Bompoka (Teressa)	2	2	1	...	...
Camorta (Central)	30	28	6	10	6
Nancowry (Central)	13	15	2	3	4
Trinkat (Central)	4	8	2	3	7
Katchall (Central)	34	37	2	5	8
Great Nicobar (Southern)	15	28	2	9	17
Kondul (Southern)	3	3	1	...	...
Little Nicobar (Southern)	13	17	1	3	7
Pulo Milo (Southern)	2	2	1	...	...

Table of chiefs with more than one village.

Island.	Chief's name.	No. of Villages in 1901.	
		Inhabited.	Uninhabited.
Car Nicobar	.....	...	...
Chowra	.....	...	...
Teressa	Rupa	2	...
Bompoka	Shameak	2	...
Camorta	Din Muhammad	7	2
	Loham	7	...
	Kaepshe	5	...
	Jan	10	2
	Suran	2	...
	Chandu	6	3
Nancowry	Jemira	8	4
Trinkat	Frederick	5	...
	Do.	1	...
	England	3	7
	Yasin	20	2
Katchall	Maung Poen	14	6
Great Nicobar	Kontri	4	6
Kondul	Dang	11	10
	Do.	3	...
Little Nicobar	Shong Shire	13	7
Pulo Milo	Do.	2	...

Village Population on Different Islands.—On these last tables can be fairly based the following observations: In Car Nicobar is a thick trading population, dwelling in permanent villages, each with its own chief or headman and his second chief or successor. Such, also, are approximately the conditions on the still more thickly populated Chowra, which is a manufacturing as well as a trading island. In Teressa the population is much thinner, and the tendency to break up villages into hamlets is commencing: *e.g.*, the Chief Rupa is occupying fresh ground with a new "village" south of his own. The two hamlets or villages on Bompoka have always been under one chief. In the Central and Southern Groups, which are quite thinly populated, there are no fixed villages at all in the sense of those on Car Nicobar and Chowra. There men shift their huts and hamlets about to any convenient site, calling each site by a separate name, but acknowledging their own proper chief. There is thus a distinct difference in habits of life between the north and south in the Nicobars.

In Appendix C will be found a list of the villages and their chiefs and the accompanying island maps will show the different arrangements of the villages under their chiefs.

Points as to Defect in Enumeration.—It is probable that the most accurate figures obtained were for adult males and, except in Chowra, the adult females are everywhere shown as slightly less numerous. This deficiency may be wrong, but is not likely to be far wrong.

The children are, however, very deficient, both male and female everywhere, and are certainly understated. Every other fact elicited pointing to a stationary population, it is necessary that the children should at least equal the adult population, but this is not anywhere nearly the case according to the returns thus:—

Dialect.	Percentage of children to adults.	
	Male.	Female.
Car Nicobar	63	55
Chowra	58	40
Teressa	83	68
Central	37	34
Southern	22	27
Shom Pen	14	11

The Shom Pen have been estimated on the figures for the coast-men for the Great Nicobar, but even eliminating these, the comparative adult and child figures are quite impossible for a stationary population. But as the totals for 1883 correspond with the totals for 1901, it is probable that the terms "adult" and "child" have been misapprehended by the Nicobarese informants, and it is consequently more likely that the figures require internal adjustment, than re-adjustment on a basis of equalizing the child to the adult population with the increase of total such re-adjustment would involve.

Foreign Residents.—The whole of the 201 foreign residents found on the islands were either traders or persons connected with the Government Agencies at Car Nicobar and in Nancowry Harbour. For detailed returns see Appendix G. They were found as regards numbers thus:—

Car Nicobar	181
Teressa	12
Camorta	7
Trinkat	1
Total	201

Of persons connected with the Government Agencies there were 11 Christians on Car Nicobar, and 3 Hindus in Nancowry Harbour.

By sexes the foreigners were 194 males and 7 females. The men were 189, women 4, boys 5, girls 3. Thus there were 193 adults and 8 children.

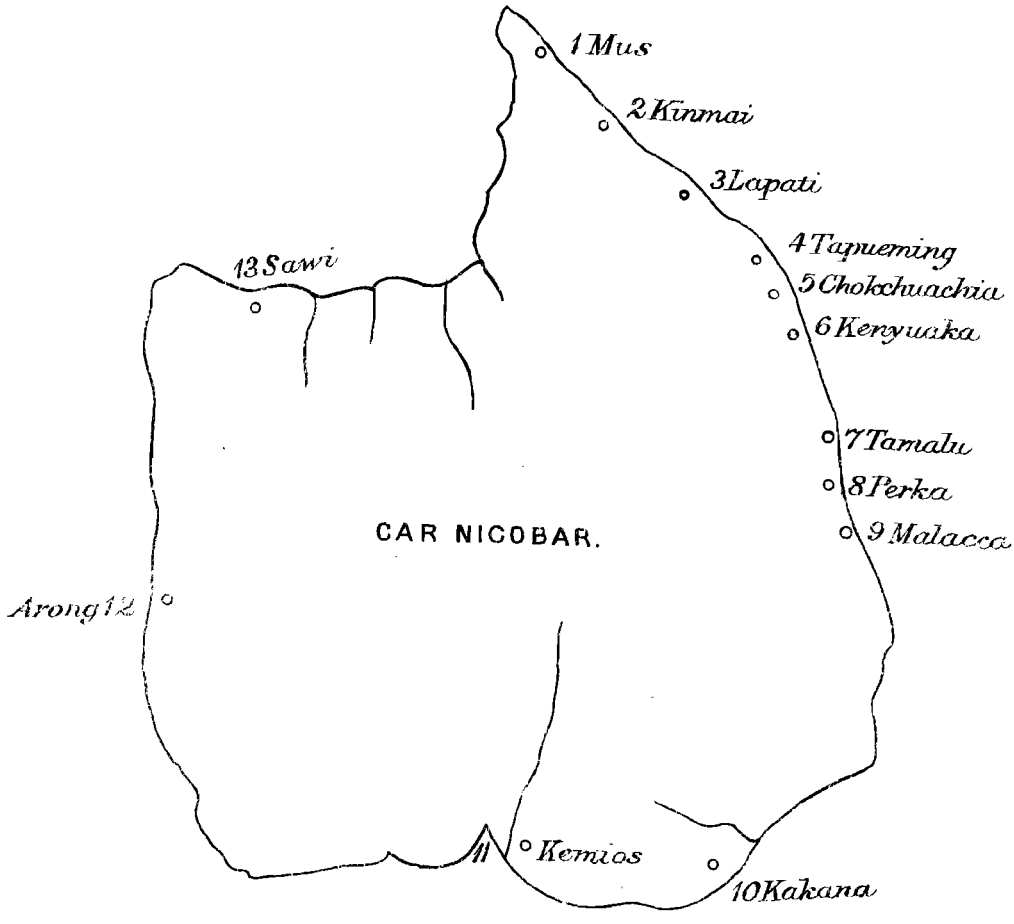
By race they were as follows:—

Burmese	120
Shans	35
Laccadives	16
Carried over	171

VILLAGE MAP

CAR NICOBAR

Each Village has its own chief and second chief

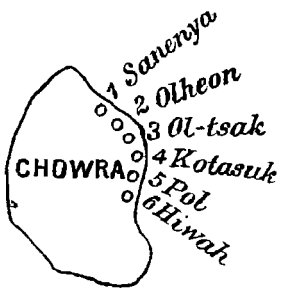


VILLAGE MAP.

CHOWRA- Each Village has its own chief

TERESSA Each Village has its own chief escept that Rupa of Kerawa owns also Kolarue

BOMPOKA Shameak owns the whole island.

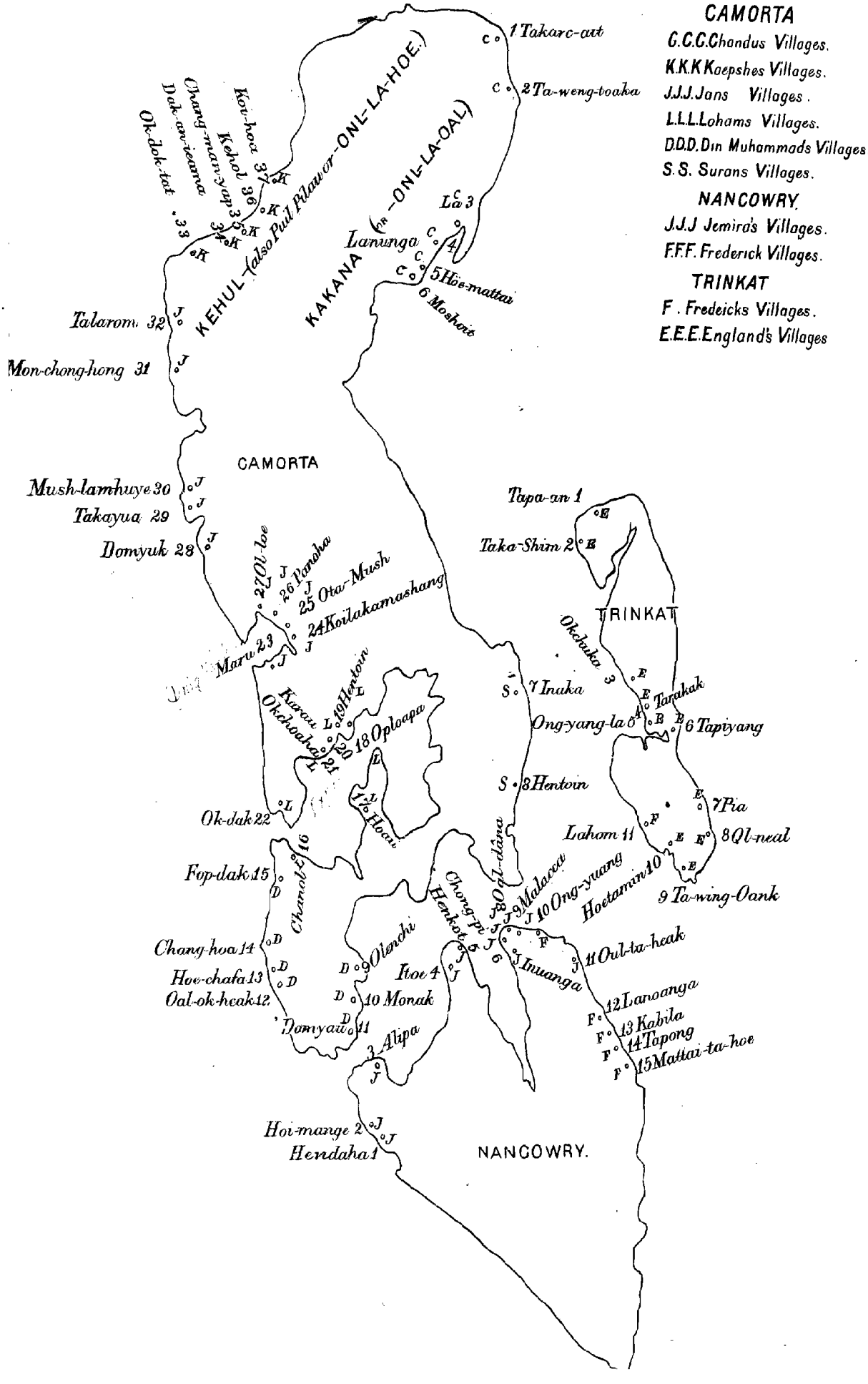


Tras & Pahiala really form one Village, though bearing separate names.



VILLAGE MAP

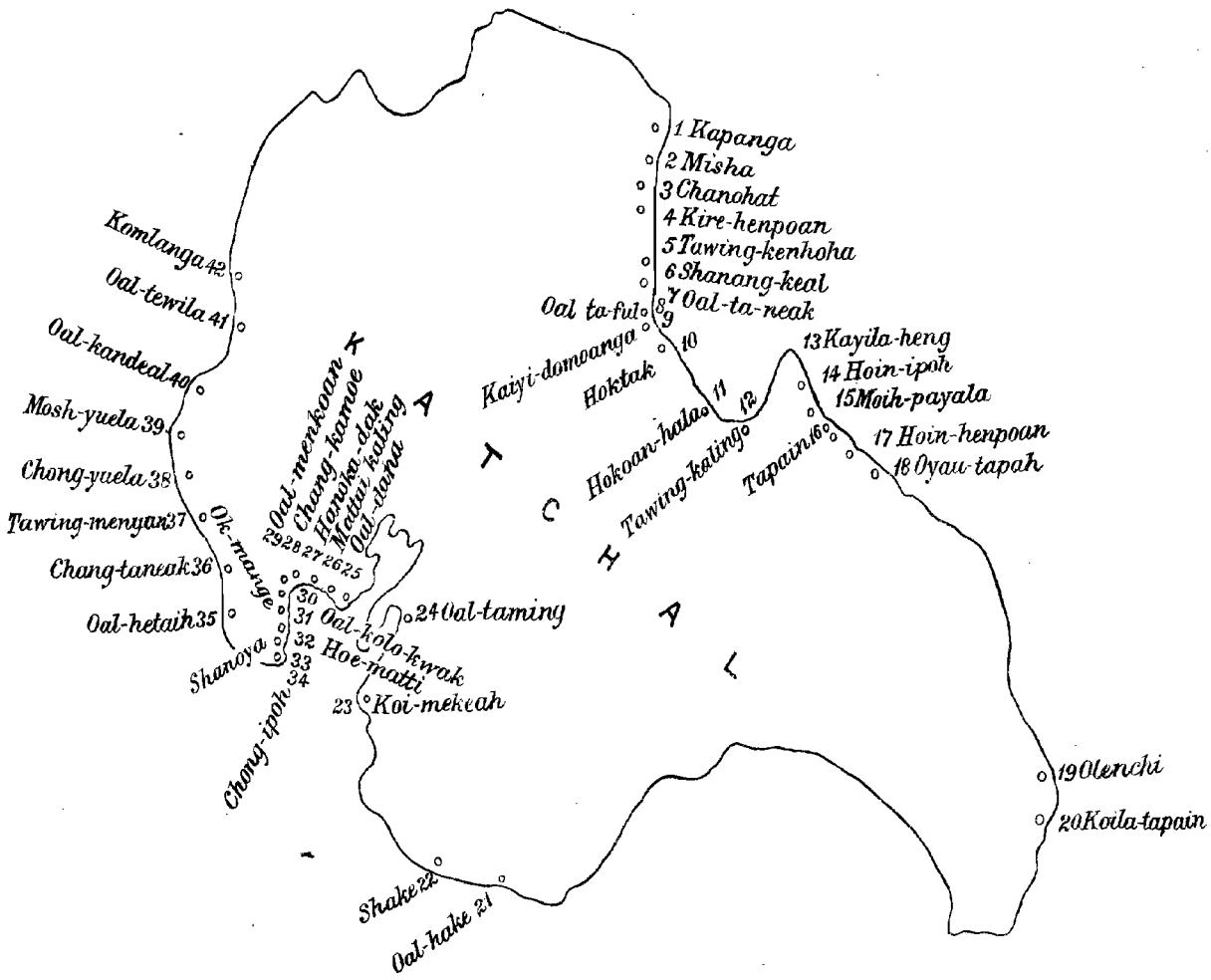
CAMORTA NANCOWRY AND TRINKAT



VILLAGE MAP.

KATCHALL

Maung Poen owns all the
Villages on the East (1 to 20)
Yusin owns all the
Villages on the West (21 to 42)



VILLAGE MAP

GREAT AND LITTLE NICOBAR KONDUL AND PULO MILO.



Kontri owns all the villages on Great Nicobar East (1 to 10)

Drang owns all the villages remaining on Great Nicobar and the three on Kondul

Shong Shire owns all the villages on Little Nicobar and Pulo Milo

Brought forward		171
Maldives		3
Chinese		5
Boras (Bombay)		4
Hindustanis		6
Uriyas		1
Madrasis		11
		201

By religion they were —

Buddhists		154
Burmese	114	
Shans	35	
Chinese	5	
Muhammadans		32
Laccadives	16	
Maldives	3	
Burmese (Zerbadis)	6	
Boras (Bombay)	4	
Hindustanis	3	
Hindus		4
Hindustanis	3	
Uriyas	1	
Christians (Protestants)		11
Madrasis	11	
		201

APPENDIX A.

LOCAL CENSUS TOTALS, 1883.

Statement prepared by Mr. de Roepstorff, showing the number of villages and houses and the approximate population of the Nicobar Islands.

Name of Island.	Number of villages.	Number of houses.	Estimated number of inhabitants.
Car Nicobar	13	Not known	3,500 *
Chowra	5	84	690 *
Teressa	8	109	571
Bompoka	2	15	86
Camorta	28	106	359
Nancowry	15	78	222
Trinkat	8	34	85
Katchall	37	66	182
Great Nicobar	28	45	146
Kondul	3	8	27
Little Nicobar	17	24	68
Pulo Milo	2	3	6
TOTAL	166	572	5,942

* NOTE—These figures were furnished by Mr. Man who completed the work left undone by the late Mr. de Roepstorff.

APPENDIX B.

Abstract of Mr. de Roepstorff's detailed tables of 1883.

I.—Chowra.

Serial number of village.	Name of Village.	Number of huts.	Name of Chief.	Number of inhabitants.
1	Olheon	19	.....	...
2	Ol-teak	34	.....	...
3	Pol	27	.....	...
4	Raichafe	2	.....	...
5	Hiwah	2	.....	...

Note.—Total of villages 5
Total of huts 84
Total of inhabitants 690

This Census was never completed by Mr. de Roepstorff. The figure for inhabitants was afterwards *estimated* by Mr. Man. According to the present Census, at 4 per hut, the figure should have been (?) 376, which, however, is clearly too low.

II.—Teressa.

1	Laksi	23	Iyo	130
2	Hinam	16	(No name)	69
3	Aöang	10	Laksha	46
4	Chanumla	2	Etmohean	9
5	Bengala	13	Nyapet	86
6	Eoya	6	Monshotnga	37
7	Pahiala	23	Gibson	113
8	Kerawa	16	Tahyushu	81

Note.—Total of villages 8
Total of huts 109
Total of inhabitants 571

III.—Bompoka.

1	Poahat	14	Kemek	78
2	Yat-kirāna	1	Kemek	8

Note.—This Census was also completed by Mr. Man.
Total of villages 2
Total of huts 15
Total of inhabitants 86

IV.—Camorta.

1	Takaro-ait	3	Chalmen	9
2	Tawengtoaka	6	Do.	15
3	La	1	Kongiñe	3
4	Lanunga	3	Konchurual	8
5	Höemattai	6	Lomkoin	14
6	Moshoit	2	Sharuaka	5
7	Olloe	13	Shuran	43
8	Hentoin	5	Takeang	18
9	Olenchi	1	Henlane	5
10	Domyau	5	Kakatu	24
11	Panoha	2	Katokong	12
12	Oalokheak	2	Shual	4
13	Höechafa	3	Changale	8
14	Changhöa	8	Tayaiche	23
15	Fopdak	5	Hangshangsu	14
16	Chanol	1	Chiongati	3
17	Hoan	12	Taufoang	52
18	Oploapa	2	Karinga	7
19	Maru	5	Ngötange	12
20	Otamush	2	Jan	6
21	Panoha	3	Kawal	9
22	Olloe	3	Elo	17
23	Domyuk	2	Damain	7
24	Takayua	1	Lopang	2
25	Mushlamhuya	1	Ipie	3
26	Talarom	2	Macheau	5
27	Changmanyap	1	Kaepshe	4
28	Kehol	6	Kaepshe	27

Note.—Total of villages 28
Total of huts 106
Total of inhabitants 359

By "chief" Mr. de Roepstorff meant the principal owner in a village, but he knew that there were "circle chiefs," and divided the island into six "circles," each with its "head chief," just as the villages are in the present Census grouped under six chiefs.

Mr. de Roepstorff's Note.—Changmanyap and Kehol are really one village.

Abstract of Mr. de Roepstorff's detailed tables of 1883—contd.

Serial number of village.	Name of Village.	Number of huts.	Name of Chief.	Number of inhabitants.
	V.—Nancowry.			
1	Lashohong	6	Kauleanga	16
2	Hoimange	1	Kanhoit	2
3	Itoe	6	London	24
4	Inuanga	8	Maung Pyi	29
5	Oaldana	2	Toange	6
6	Malacca	14	London	43
7	Ongyueng	5	Yuangtachang	10
8	Oaltaheak	9	Johnson	27
9	Lanoanga	5	Hoitkoya	12
10	Kabila	2	Johnson	6
11	Tapong	12	Shinan	31
12	Mattaitahö	3	Hachamne	6
13	Longhifen	1	Mendök	2
14	Inöwe	2	Katochange	4
15	Payake	2	Kanawe	4
	Note.—Total of villages 15 Total of huts 78 Total of inhabitants 222			
	The same remarks apply to "chief" and "head chief" as to Camorta.			
	VI.—Trinkat.			
1	Takashim	6	Shurun	16
2	Okchuaka	11	England	28
3	Ongyangla	8	Kalipan	20
4	Tapiyang			
5	Pia	...	Uninhabited	...
6	Lahom	4	Kochubong	9
7	Olneal	2	Tafoa	6
8	Höetamin	3	Kahoisho	6
	Note.—Total of villages 8 Total of huts 34 Total of inhabitants 85			
	The same remarks apply to "chief" and "head chief" as to Camorta.			
	VII.—Katchall.			
1	Tabiye	1	Kayilla	3
2	Olenchi	4	Onghongla	7
3	Oyautapa	4	Fanoka	10
4	Kapain	2	Maung Poen	4
5	Dakminchum	2	Konon	7
6	Moihpayala	1	Chinleangan	4
7	Hoinipoh	3	Koni	7
8	Hoktak	1	Bani	4
9	Kaiyidomoanga	1	Haleanga	2
10	Oaltaful	1	Hapeïta	2
11	Oaltaneak	1	Kareshe	3
12	Shanangkoal	2	Shichefa	4
13	Hoinhenpoan	1	Lukopoka	5
14	Chanohat	1	Kangtanglong	2
15	Misha	1	Ha	2
16	Kapanga	1	Chingoan	3
17	Komlanga	4	Yangmanoit	11
18	Kokandea	2	Tomfual	4
19	Mohean	2	Ope	5
20	Chongyuela	1	Henhowechia	3
21	Tawingmenyan	1	Shaiti	5
22	Changtaneak	1	Miho	2
23	Oalhetaihaisha	1	Kalana	3
24	Oalhetaih	2	Mitlait	7
25	Chongipoh	2	Yohe	5
26	Shanoya	2	Panongcha	4
27	Hoemattai	2	Komhiloä	7
28	Okmange	3	Muchak	9
29	Oalkolokwak	3	Sitop	11
30	Oalmenkoan	2	Funga	10
31	Changkamö	1	Syatau	2
32	Hanokadak	1	Wang	2
33	Mattaikaling	3	Koma	11
34	Oaldana	1	Anoya	1
35	Oaltaning	3	Otitoak	7
36	Konmakean	1	Facheharil	2
37	Shake	1	Yoshake	2
	Note.—Total of villages 37 Total of huts 66 Total of inhabitants 182			

Here, again, Mr. de Roepstorff meant by "chief" the principal owner of the village property. The first 16 villages he divided into East Katchall and the remaining 21 into West Katchall.

Mr. de Roepstorff's Notes.—The inhabitants on the East side of Katchall own nearly all the (cocoanut) trees on this side of the island, but some are also owned by other people. They are very well off and inclined to be friendly. Maung Poen has been made headman of the groups (16 villages). He is a young, energetic man, who is friendly and very well estimated. He owns many trees on the East side and also on the West side.

The whole of the villages on the West Coast could properly have been put under Sitop of Oalkolokwak. He is a priest of very great repute, is a weakly man and has two sons, who could carry out any orders. The cocoanut trees on the West Coast are very numerous, but only those in the part inhabited are really under control. The rest are enjoyed by the monkeys on the island. The villages of Kokandea and Mohean are so much infested with the python snake that no fowls are kept. (This may account for their disappearance in the present Census.)

Serial number of village.	Name of Village.	Number of huts	Name of Chief.	Number of inhabitants.
	VIII.—Great Nicobar.			
1	Laful	6	.....	19
2	Layom	1	.....	4
3	Panok	3	.....	10
4	Chisen	...	Uninhabited	...
5	Bananga	2	.....	4
6	Ehongadak	...	Uninhabited	...
7	Tefap	...	Uninhabited	...
8	Mataitaanla	2	.....	6
9	Enlowa	3	.....	12
10	Changngeh	3	.....	8
11	Lokafum			
12	Henhoaha	2	.....	4
13	Enhenyaloe	1	.....	2
14	Shanonya	1	.....	2
15	Oalkanoat	...	Uninhabited	...
16	Henkota	2	.....	10
17	Barönwe	1	.....	2
18	Henpoin	1	.....	5
19	Chanoha	...	Uninhabited	...
20	Kanalla	3	.....	16
21	Koai	3	.....	8
22	Taeanga	1	.....	3
23	Kashindon	3	.....	7
24	Kopenheat	2	.....	11
25	Dakoauk	2	.....	4
26	Dakomke	2	.....	6
27	Dakshiton	1	.....	3
28	Yashindo	...	Uninhabited	...

Note.—Total of villages 28
Total of huts 45
Total of inhabitants 146

Mr. de Roepstorff does not note any "chief" for Great Nicobar.

Mr. de Roepstorff's Notes.—Opposite Oalkanoat (15) he remarks "one house for work: no monkeys." Opposite (19) Chanoha he writes "working house belonging to Kanala." Opposite (28) Yashindo he has "working houses, uninhabited by monkeys."

	IX.—Kondul.			
1	Oalnga-nat	4	Dang	14
2	Moyai-ya	2	„	5
3	Oal-dowa	2	„	8

Note.—Total of villages 3
Total of huts 8
Total of inhabitants 27

Mr. de Roepstorff's Note.—The vernacular name for Kondul is Lamongshe, and its name before 1845 was Charanga.

Abstract of Mr. de Roepstorff's detailed tables of 1883—concld.

Serial number of village.	Name of Village.	Number of huts.	Name of Chief.	Number of inhabitants.
	X.—Little Nicobar.			
1	Temain	1	Jan	4
2	Ekoya	2	„	2
3	Patua	2	„	9
4	Olenchi	1	„	2
5	Tafoap	1	.....	2
6	Endoana	1	.....	4
7	Sharonta	1	.....	3
8	Tasha-haya	1	.....	5
9	Ileya	2	.....	4
10	Pahonk	1	.....	2
11	Maku-chian	3	Jan	7
12	Iloa	2	.....	4
13	Anula	1	.....	2
14	Enhokta	1	.....	3
15	Koila-oal	1	.....	4
16	Enfök	1	.....	7
17	Pahua	2	.....	4

Note.—Total of villages 17
Total of huts 24
Total of inhabitants 68

Mr. de Roepstorff only mentions Jan occasionally as chief. He probably meant to note him as chief of the whole island.

	XI.—Pulo Milo.			
1	Oalheshoi	1	Jan	2
2	Pehainsp	2	„	4

Note.—Total of villages 2
Total of huts . . . . . .
Total of inhabitants . . . . .

APPENDIX C.

List of Villages and their Chiefs in the Nicobar Islands with the total population of each Village as taken in the Census of 1901.

No. on Map.	Name of Village.	Name of Chief.	Total population.
	I. CAR NICOBAR.		
12	Arong	Tom Dixon	341
5	Chokchuachia	Sam	151
10	Kakana	Sanelnga	100
11	Kemios	Silima	203
6	Kenyuaka	Corney Grain	142
2	Kinmai	Young Gwyn	205
3	Lapati	Edwin	755
9	Malacca	Saibu	148
1	Mus	Offandi	536
8	Perka	Kanaiñe	199
7	Tamalu	Hikka	240
4	Tapueming	Lawi	114
13	Sawi	Sampson	317
		TOTAL	3,451
	II. CHOWRA.		
4	Kotasuk	Malohla	31
2	Olheon	Liawa	51
3	Ol-teak	Filik	12
5	Pol	Anaka	69
6	Raichafe (also called Hiwah)	Teka	55
1	Sanenya	Tamkoi	304
		TOTAL	522
	III. TERESSA.		
10	Aöang	Ahúa	61
1	Bengala	Gibson	119
11	Chanumla	Hinaila	8
2	Eoya	Kafin	32
9	Hinam	Komponi	62
5	Kanom Hinot	Kintoich	7
6	Kerawa	Rupa	60
7	Kolarue	...	2
8	Laksi	Wanechia	151
4	Pahiala	Kintoich	27
3	Tras	Nialu	95
		TOTAL	624
	IV. BOMPOKA.		
1	Poahat	Shameak	69
2	Yat-kirāna	Do.	9
		TOTAL	78
	V. CAMORTA.		
14	Chang-hōa	Din Mahomed	35
35	Chang-manyap	Kaepshe	26
16	Chanol	Loham	9
34	Dak-an-feama	Kaepshe	30
11	Domyau	Din Mahomed	34
28	Domyuk	Jan	6
15	Fop-dak	Din Mahomed	15
8	Hentoin	Suran	6
19	Hentoin	Loham	3
17	Hoau	Loham	42
13	Hoë-chafâ	Din Mahomed	...
5	Höe-mattai	Chandu	34
7	Inaka	Suran	31
20	Karau	Loham	9
36	Kehol	Kaepshe	21
37	Koi-hoa	Do.	13
24	Koilakamashang	Jan	10
3	La	Chandu	...
4	Lanunga	Do.	10
23	Maru	Jan	9
10	Monak	Din Mahomed	9
31	Mon-chong-hoang	Jan	...
6	Moshoit	Chandu	30
30	Mush-lam-huye	Jan	2
12	Oal-ok-heak	Din Mahomed	4
21	Okchoâka	Loham	3
22	Ok-dak	Do.	12
33	Ok-dok-tat	Kaepshe	50
9	Olenchi	Din Mahomed	...
27	Ol-loe	Jan	13
18	Oploapa	Loham	4
25	Ota-mush	Jan	3
26	Panoha	Do.	10
1	Takaro-ait	Chandu	...
29	Takayua	Jan	...
32	Talarom	Do.	5
2	Ta-weng-toaka	Chandu	...
		TOTAL	488
	VI. NANCOWRY.		
3	Alipa	Jemira	...
7	Chong-pi	Do.	15
5	Henkot	Do.	...
1	Hendaha	.....	...
2	Hoi-mange	.....	...
6	Inuanga	Jemira	21
4	Itoe	Do.	22
13	Kabila	Frederick	12
12	Lanoanga	Do.	2
9	Malacca	Jemira	58
15	Matai-ta-hoe	Frederick	5
8	Oal-dana	Jemira	13
11	Oal-ta-heak	Frederick	23
10	Ong-yuang	Jemira	9
14	Tapong	Frederick	44
		TOTAL	224
	VII. TRINKAT.		
10	Höetamin	England	...
11	Lahom	Frederick	4
3	Okchuâka	England	84
8	Ol-neal	Do.	...
5	Ong-yang-la	Do.	9
7	Pia	Do.	...
2	Taka-shim	Do.	...
6	Tapiyang	Do.	5
1	Tapoa-an	Do.	...
4	Tarakak	Do.	...
9	Ta-wing-cânk	Do.	...
		TOTAL	102

List of Villages and their Chiefs in the Nicobar Islands with the total population of each Village as taken in the Census of 1901—continued.

No. on Map.	Name of Village.	Name of Chief.	Total population.
	VIII. KATCHALL.		
28	Chang-kmoe	Yusin	11
36	Chang-taneak	Do.	4
3	Chanohat	Moung-Poen	...
34	Chong-ipoh	Yusin	4
38	Chong-yuela	Do.	6
11	Hakoan-hala	Moung-Poen	2
10	Hoktak	Do.	...
27	Hanoka-dak	Yusin	5
32	Hoe-mattai	Do.	11
17	Hoin-henpoan	Moung-Poen	2
14	Hoin-ipoh	Do.	4
9	Kaiyi-domoanga	Do.	...
1	Kapanga	Do.	12
13	Kayila-heng	Do.	...
4	Kire-henpoan	Do.	4
20	Koila-tapain	Do.	14
23	Koi-mekeah	Yusin	7
42	Komlanga	Do.	5
26	Mattai-kaling	Do.	3
2	Misha	Moung-Poen	2
15	Moih-payala	Do.	7
39	Mosh-yuela	Yusin	8
25	Oal-dana	Do.	2
21	Oal-hake	Do.	...
35	Oal-hetaih	Do.	20
40	Oal-kandeal	Do.	5
30	Oal-kolo-kwak	Do.	18
29	Oal-menkoan	Do.	10
8	Oal-ta-ful	Moung-Poen	...
24	Oal-taming	Yusin	13
7	Oal-ta-neak	Moung-Poen	21
41	Oal-tewila	Yusin	...
31	Ok-mange	Do.	8
19	Olenchi	Moung-Poen	24
18	Oyau-tapah	Do.	20
22	Shake	Yusin	4
6	Shanang-koal	Moung-Poen	7
33	Shanoya	Yusin	9
16	Tapain	Moung-Poen	2
12	Tawing-kaling	Do.	...
5	Tawing-kenhoha	Do.	5
37	Tawing-menyan	Yusin	2
		TOTAL	281
	IX. GREAT NICOBAR.		
17	Aka-noat	Dang	...
7	Bananga	Kontri	...
12	Chang-ngeh	Dang	7
21	Chanoha	Do.	4
6	Chisen	Kontri	...
32	Dak-lam	Dang	...
27	Dak-oank (or Pulo Kunyi)	Do.	4
28	Dak-omkeih (or Pulo Pet)	Do.	...
29	Dak-shiton	Do.	...
8	Ehonga-dak	Kontri	...
15	Enhenya-lôe	Dang	2
11	Enlowa	Do.	...
14	Henhoaha	Do.	3
18	Henkota (or Pulo Kota)	Dang	13
20	Henpoin	Do.	6
22	Kanalla (or Pulo Babi)	Do.	12
25	Kashindon	Do.	3
23	Koai	Do.	8
4	Koal-tapain	Kontri	...
26	Kopenheat	Dang	4
1	Laful	Kontri	13
2	Layom	Do.	...
13	Loka-fum	Dang	...
10	Mataita-anla	Kontri	2
19	Mush-panuya	Dang	...
5	Panok	Kontri	4
16	Shanonya	Dang	...
24	Tá-ēanga	Do.	2
31	Ta-wing-fong	Do.	...
9	Tefap	Kontri	...
3	Tenlaa	Do.	...
30	Yashindo	Dang	...
		TOTAL	87
	X. LITTLE NICOBAR.		
19	Anula	Shong Shire	...
14	Dit-dak	Do.	...
10	Ekoya	Do.	15
3	Endoana	Do.	2
16	Enfok	Do.	10
18	Enhokta	Do.	...
1	Ileya	Do.	4
8	Kanduaka	Do.	2
17	Koila-oal	Do.	7
20	Maka-chian	Do.	...
21	Oal-heshoi (and Pihainsp)	Do.	1
6	Olenchi	Do.	2
11	Oruanka	Do.	...
9	Pahonk	Do.	4
15	Pahua	Do.	1
7	Patua	Do.	2
22	Pituh	Do.	3
4	Sharonta-endenya	Do.	7
5	Ta-foap	Do.	5
2	Tasha-haya	Do.	...
12	Temain	Do.	2
13	Tiden	Do.	...
		TOTAL	67
	XI. KONDUL.		
2	Moyai-ya	Dang	7
1	Oal-dowa	Do.	17
3	Oalnga-nat	Do.	14
		TOTAL	38

APPENDIX D.

CENSUS OF THE NICOBARESE, 1901.

CHIEF COMMISSIONER'S ORDERS, DATED 31ST DECEMBER, 1900.

1. The R. I. M. S. *Elphinstone* will start on Friday, 4th January, at such time as will enable her to reach Mus in Car Nicobar on Saturday, 5th, at day-break. The subsequent tour will be, wind and weather permitting, as follows :—

(1) Reach Chowra day-break—Sunday, 6th.
(2) Reach Teressa—Monday, 7th, remaining between Teressa and Bompoka—7th and 8th.
(3) Reach Nancowry Harbour evening of Tuesday, 8th, or morning of Wednesday, 9th, remaining there 9th, 10th and 11th.
(4) Reach Katchall East, morning of Saturday, 12th, remaining there and anchoring off Dring Harbour on Camorta for the afternoon and night.
(5) Reach Kondul East, on Sunday, 13th, remaining there so as to anchor off Kondul West, in the evening.
(6) Reach Katchall West, on Monday, 14th early.
(7) Reach Car Nicobar (Mus) on Tuesday, 15th.
(8) Reach Port Blair morning Wednesday, 16th.

2. The following forms will be used for the Census of Car Nicobar and Chowra where the villages are large. There are 13 villages on Car Nicobar, and 6 or 7 on Chowra.

FORM.

FOR CENSUS OF CAR NICOBAR AND CHOWRA.

Name of Village———————Chief———————

Serial Number of Sub-Chief.	Name of Sub-Chief.	No. of huts.	Men.	Women.	Boys.	Girls.	Total.
Total of village.							

3. The following forms will be used for the Census of Teressa, Bompoka, Camorta, Trinkat, Nancowry, Katchall, Little Nicobar, Kondul, and Great Nicobar, where the villages are very small. There are about 6 villages on Teressa, 1 in Bompoka, 15 on Camorta, 3 on Trinkat, 9 on Nancowry, 10 on Katchall, 15 on Little Nicobar, 1 on Kondul, and 10 on Great Nicobar. Only an estimate of the wild Shom Pen of the Great Nicobar will be made on a basis of their being 4 to 1 of the coast inhabitants of Great Nicobar.

FORM.

FOR CENSUS OF THE CENTRAL AND SOUTHERN GROUP.

Name of Island———————

Serial Number of Village.	Name of Chief.	No. of huts.	Men.	Women.	Boys.	Girls.	Total.
Total of island							

4. The Census operations will be conducted by Mr. E. H. Man, C.I.E., with the assistance of Lieutenant Wilson, R.I.M., Captain Anderson, I.M.S., and Mr. D'Oyly.

5. The following procedure will be adopted for Car Nicobar. The Census party will land at Mus, explain the forms to Mr. Solomon, and direct him to set to work at once, with his son-in-law, to go round the island and fill them in as nearly as he can by questioning each sub-chief as to the number of huts under him and the number of men, women, boys and girls ordinarily inhabiting them. He should be satisfied with the answer given him as there will be no time for disputing the figures given, and he should fill in the blank forms accordingly in the manner of the specimen form given him. He should have everything ready before Monday, the 14th January, and be at Mus so as to meet the steamer on the morning of Tuesday, the 15th.

6. The Census of Chowra, Teressa, Bompoka, Camorta, Trinkat, Nancowry, and Katchall will be undertaken by Mr. Man and his assistants direct according to a procedure to be ordered separately.

7. The only place to be visited in the Southern Group will be Kondul, from the chief of which sufficiently accurate information can be procured as to the inhabitants of every village on the Great and Little Nicobars. Mr. Man will fill in the forms for the Southern Group accordingly.

APPENDIX E.

CENSUS OF THE NICOBARESE, 1901.

INSTRUCTIONS AS PER CHIEF COMMISSIONER'S ORDERS DATED 31ST DECEMBER, 1900, PARAGRAPH 6.

1. Mr. Man will give his assistants a list of the Nicobarese words they will require for the purposes of the Census.

2. The following information from the last Census in 1883 will be useful to check the information gathered this time. The population of the following islands was then found to be as follows: Chowra, 690; Teressa, 571; Bompoka, 86; Camorta, 359; Nancowry, 222; Trinkat, 85; Katchall, 182; Little Nicobar, 68; Pulo Milo, 6; Kondul, 27; Great Nicobar, 146 (Coasts only). The average number of inhabitants per hut in Chowra, Teressa, and Bompoka was found to be 6, and for the rest of the Central and the Southern Group to be 3.

3. Two policemen, armed, will attend each officer while on shore.

4. Mr. Man will supply himself and each officer with a sketch map showing every village to be enumerated.

5. Each officer will be provided with a blank pocket note-book and pencil.

6. All forms, etc., will be handed over to Mr. Man for distribution.

7. The following is a sketch of the procedure to be actually adopted at various points.

CHOWRA.

8. The landing will be effected, if possible, in the centre of the villages on the East Coast.

9. Mr. Man will then interview the head chief and detail, with his aid, a guide each to Captain Anderson and Mr. D'Oyly.

10. The villages will be told off as follows:—

Mr. Man, Sanenya and Olheon.
Mr. D'Oyly, Olteak and Kotasuk:
Captain Anderson, Pal and Raichafe (*alias* Hiawah).

11. Arrived at his villages, each officer will mark each hut with his initial and a number on the pillar nearest the entrance by the ladder, and thus enumerate the huts.

12. When the huts are numbered, the officer will ask his guide what is the number of men, women, boys and girls in each hut, successively, accepting the guide's statements and putting down the information thus procured in Form I A. This information will be afterwards incorporated into Form I.

TERESSA.

13. Mr. Man will land at Bengala and take the Census of the villages of Bengala, Chanumla, Eoya, Pahiala (*alias* Tras), in the same manner and form as for Chowra.

14. Captain Anderson and Mr. D'Oyly will land at Kerawa, with the Nicobarese Adolph as a guide.

15. Captain Anderson will take the census of the villages of Kerawa, Aong and Hinam, in the same manner and form as for Chowra.

16. Mr. D'Oyly will procure a guide from Adolph and walk across the island to Laksi and take the Census of that village in the same manner and form as for Chowra. While at Laksi he will enquire the details about Kolarue and enter them on Form I A.

17. All the information as to Teressa will then be incorporated into Form I.

BOMPOKA.

18. Mr. Man will take the Census of Poahat and Yatkirana villages, and enter the information obtained in Form I.

CAMORTA, NANCOWRY, AND TRINKAT.

19. The *Elphinstone* will proceed to Nancowry Harbour.

20. The Census of these islands will, in the first place, be taken according to the information procured at Malacca, Dumyau, and Hentoin.

21. Mr. Man will land at Malacca and procure all the information required as to all Nancowry Island.

22. Mr. D'Oyly will land at Hentoin and procure all the information required as to the east coast of Camorta and Trinkat.

23. Captain Anderson will land at Dumyau and procure all the information required as to the south-west coast of Camorta and Expedition Harbour.

24. Mr. Man will provide guides for himself, Captain Anderson, and Mr. D'Oyly.

25. The information procured from the guides will be recorded in Form I as stated by them, except that the name of each village chief had better be filled in afterwards by Mr. Man himself.

26. Mr. Man will record all the villages on Nancowry Island; Captain Anderson, those numbered 9 to 19a on the sketch map of Camorta; Mr. D'Oyly, all the villages on Trinkat and those numbered 1 to 8 on Camorta.

27. If time permits, Mr. Man will decide which of these villages each officer shall visit, and test personally the value of the information he has received from his guide.

Katchall East and Dring Harbour (Camorta).

28. The *Elphinstone* will proceed to the east coast of Katchall and land Mr. Man at Hoinipoh and Captain Anderson at Kirehenpoan.

29. Mr. Man will select guides for himself and Captain Anderson.

30. Mr. Man will take the Census of the villages numbered 13 to 20 in the sketch map of Katchall, and Captain Anderson those numbered 1 to 12.

31. The procedure on the spot will be that at Nancowry Harbour.

32. The information desired should be procured in one morning's work, when the *Elphinstone* will proceed to Dring Harbour, where Mr. Man will land and procure the information desired as to North-West Camorta regarding villages 20 to 33, recording it in Form I.

Southern Group.

33. Mr. Man will land at Kondul and there procure all the information desired as to the Southern Group, and record it in Form I.

Katchall West.

34. Mr. Man will land and procure all the information required from the chief of Oalkolokwak, and fill it into Form I.

APPENDIX F.

CENSUS OF THE NICOBARESE, 1901.

NOTE FOR THE OFFICERS.

Compiled with corrections from Mr. de Roepstorff's List, 1883.

The following is a list of villages in the Nicobar Islands. The numbers refer to the sketch map :—

I. CAR NICOBAR.

1.—Mus, 2.—Kinmai, 3.—Lapate, 4.—Tapueming, 5.—Chokchuachia, 6.—Kenyuaka, 7.—Tamalu, 8.—Perka, 9.—Malacca, 10.—Kakana, 11.—Kemios, 12.—Arong, 13.—Sawi.

II. CHOWRA.

1.—Sanenya, 2.—Olheon, 3.—Ol-teak, 4.—Kotasuk, 5.—Pal, 6.—Raichafe (also called Hiwah).

III. TERESSA.

1.—Bengala, 2.—Eoya, 3.—Pahiala, 4.—Kerawa, 5.—Kola-rue, 6.—Laksi, 7.—Hinam, 8.—Aoang, 9.—Chanumla.

IV. BOMPOKA.

1.—Poahat, 2.—Yat-kirana.

V. CAMORTA.

1.—Takaroait, 2.—Ta-weng-toaka, 3.—La, 4.—Lanunga, 5.—Hoe-mattai, 6.—Moshoit, 7.—Inaka, 8.—Hentoin, 9.—Olenchi, 10.—Monak, 11.—Domyau, 12.—Oal-ok-heak, 13.—Hoe-chafa, 14.—Chonghoa, 15.—Fop-dak, 16.—Chanol, 17.—Hoau, 17(*a*).—Oploapa, 18.—Hentoin, 18(*a*).—Karau, 19.—Chang-Nyauwa, 19(*a*).—Ok-dak, 20.—Maru, 20(*a*).—Koila-kamashang, 21.—Ota-mush, 22.—Panoha, 23.—Ol-loe, 24.—Domyuk, 25.—Takayua, 26.—Mush-lam-huye, 27.—Mong-chong-hoang, 28.—Talarom, 29.—Ok-dok-tat, 30.—Dak-an-feama, 31.—Chang-manyap, 32.—Kehol, 33—Koi-hoa.

VI. NANCOWRY.

1.—Hendaha, 2.—Hoi-mange, 2(*a*).—Atipa, 3.—Itoe, 3(*a*).—Henkot, 4.—Inuanga, 5.—Oal-dana and Chang Pi, 6.—Malacca, 7.—Ong-yuang, 8.—Oal-ta-heak, 9.—Landanga, 10.—Kabila, 11.—Tapong, 12.—Mattai-ta-hoe.

VII. TEINKAT.

1.—Tapoaan, 2.—Takashim, 3.—Okchuaka, 4.—Tarakak, 5.—Ongyuang-lon, 6.—Tapiyang, 7.—Pia, 8.—Ol-neal, 9.—Ta-wing-oank, 10.—Hoe-tamin, 11.—Lahom.

VIII. KATCHALL.

1.—Kapanga, 2.—Misha, 3.—Chanohat, 4.—Kire-henpoan, 5.—Ta-wing-kenhoha, 6.—Shanang-koal, 7.—Oal-ta-neak, 8.—Oal-ta-ful, 9.—Kaiyi-domoanga, 10.—Hoktak, 11.—Hakoan-hala, 12.—Ta-wing-kaling, 13.—Kayila-heng, 14.—Hoinipoh, 15.—Moih-payala, 16.—Tapain, 17.—Hoin-henpoan, 18.—Oyau-tapah, 19.—Olenchi, 20.—Koila-tapain, 21.—Oal-hake, 22.—Shake, 23.—Koi-mekeah, 24.—Oal-taming, 25.—Oal-dana, 26.—Mattai-kaling, 27.—Hanoka-dak, 28.—Chang-kamoe, 29.— Oal-menkoan, 30.—Oal-kolo-kwak, 31.—Ok-mange, 32.—Hoe-mattai, 33.—Shanoyal, 34.—Chong-ipoh, 35.—Oal-hetaih, 36.—Chang-taneak, 37.—Ta-wing-menyan, 38.—Chong-yuela, 39.—Mosh-yuela, 40.—Oal-kandeal, 41.—Oal-tewila, 42.—Komlanga.

IX. GREAT NICOBAR.

1.—Laful, 2.—Layom, 3.—Tentaa, 4.—Koal-tapain, 5.—Panok, 6.—Chisen, 7.—Bananga, 8.—Ehonga-dak, 9.—Tafap, 10.—Mataita-anla, 11.—Enlowa, 12.—Chang-ngeh, 13.—Loka-fum, 14.—Henhoaha, 15.—Enhenya-loe, 16.—Shanonya, 17.—Aka-noat, 18.—Henkota (or Pulo Kota), 19.—Bakanowa, 20.—Henpoin, 21.—Chanoha, 22.—Kanalla (or Pulo Babi), 23.—Kui, 24.—Tae-hanga, 25.—Kashindon, 26.—Kopenheat, 27.—Dak-oauk (or Pulo Kunyi), 28.—Dakomkeh, (or Pulo Pet), 29.—Dak-shiton, 30.—Yashindo, 31.—Ta-wing-fong, 32.—Dak-lam.

X. LITTLE NICOBAR AND PULO MILO.

1.—Ileya, 2.—Tasha-haya, 3.—Endoana, 4.—Sharonta Endenya, 5.—Ta-froap, 6.—Olenchi, 7.—Patua, 8.—Kanduaka, 9.—Pahonk, 10.—Ekoya, 11.—Oruanka, 12.—Temain, 13.—Tiden, 14.—Ditdak, 15.—Pahua, 16.—Enfok, 17.—Koila-al, 18.—Enhokta, 19.—Anuia, 20.—Makahian, 21.—Oal-heshoi (and Pihainsp).

XI. KONDUL.

1.—Oal-Dowa, 2.—Moyaiya, 3.—Oalnga-nat.

APPENDIX G.

REPORTS AND DIARIES OF THE CENSUS TOUR.

Report from Mr. E. H. Man, C.I.E., Deputy Superintendent, Port Blair, on a visit to the Nicobar Islands from 4th to 13th January 1901, for the purpose of taking a Census.

I have the honour to submit the following report of the visit paid by me to the Nicobar Islands in the R. I. M. S. *Elphinstone*.

4th January 1901.—Having embarked with Captain Anderson, I.M.S., and Mr. D'Oyly, and the marginally-noted individuals, the steamer left this harbour at about 2 P.M. for Car Nicobar.

Police escort, servants, plant-collectors, convict boatmen, 6 Andamanese and a trader.

5th January 1901.—Anchored at 8 A.M. in Sawi Bay near Mus village. Mr. Solomon came on board and reported all well. Landed with Census papers and explained to the Government Agent how to take the Census during the absence of the steamer at the other islands. Found the beacon to be in need of fresh wire-rope stays. It was observed by Captain Anderson, that itch was very prevalent among the natives, and a bad case was noticed among the traders. Advice was given as to how to eradicate the disease. On returning to the steamer, took a canoe and some natives to assist us in landing at the other islands.

6th January 1901.—Having left Car Nicobar at midnight, arrived at Chowra at about 7 A.M. Lalu (the former headman) came on board and reported that Tamkoi (the new headman) was absent on a visit to Nancowry. Landed with Captain Anderson and Mr. D'Oyly and took the Census of the inhabitants, who at present appear to number only 522 against 690, the estimated population in 1886. There were no foreigners residing at the island. The anchor of one of the two boats lent by the Marine Department was lost. The natives promised to try to recover it for us.

7th January1901.—Left Chowra at 5 A.M. and anchored off Bengala (Teressa Island) at 7 A.M. Gibson and his wife came on board and reported all well. Landed and took the Census of Bengala, Eoya and Chanumla. A beacon was fixed on a conspicuous cocoanut tree at Bengala by the officers of the steamer. The vessel then proceeded to Kerawa, where all landed and the Census of the remaining villages of the island was taken. Twelve Burman kopra-makers constituted the entire foreign element on the island.

8th January 1901.—Leaving at 5 A.M., proceeded to Bompoka where the *Aung-khyantha-gyi* (Burmese barquantine) was anchored off Poahat village. Landed there and took Census of the inhabitants of the island. Left at 8 A.M. for Nancowry harbour, and anchored in Spiteful Bay at 11-30 A.M. Rati Lal came on board and reported that on 24th October last a cocoanut tree fell on to the roof of his quarters, doing much damage. Landed at Inuanga and visited Malacca. Arranged for taking Census on the following day of Nancowry, Trinkat, and of the east and south-west portions of Camorta. Found two baglas at Inuanga, a junk off Trinkat, and a barquantine near the west entrance of Nancowry harbour.

9th January 1901.—Took Census as arranged and found only one foreigner, a Burman trader, who was at Trinkat. Visited the Government station and took note of the damage done to Rati Lal's quarters and of the materials that will be necessary to effect repairs. Received from Rati Lal a current-slip found a month ago in a bottle on the north-east coast of Camorta; handed this to Lieutenant-Commander Wilson for disposal. A new red buoy was placed in position off Naval Point by that officer during the day in order to mark the channel at the east entrance.

10th January 1901.—Left at 6 A.M. for the east coast of Katchall where the Census of all the existing villages was taken, and the cave visited. Leaving at 2-30 P.M., reached the anchorage outside Dring Harbour at 3-30 P.M. Landed and took the Census of the north-west of Camorta, excepting Puli Pilau, which must be done on the spot owing to the number of new settlers from Chowra and Teressa. Fresh tracks of buffaloes were discovered near the village, but no animals were seen.

11th January 1901.—Left at 5 A.M. for Kondul, anchoring off that island at 0-30 P.M. Took Census of entire southern group, and obtained some split cane in exchange for Port Blair pots. Ascertained that there were no foreigners at any of these islands. Visited Chinese junk off south-east coast of Little Nicobar, and found that she had obtained a permit to trade. Left at midnight for Katchall.

12th January 1901.—Arrived off West Bay of Katchall at about 7 A.M. Landed at Oal-kolo-kwak, and took Census of the remaining villages of this island. Found the natives to be most friendly in spite of the infrequent visits paid by the Government steamer to this locality. Proceeded at 10 A.M. to the north-west of Camorta, anchoring off Puli Pilau at 1 P.M. Took Census of the five villages there and found that there were 28 Chowra and 4 Teressa settlers there and 4 Burman kopra-makers. Numerous recent tracks of wild buffaloes were seen near the villages, but no animals could be discovered, in spite of a search being made between 4 and 6 P.M.

13th January 1901.—Left at 3 A.M. for Chowra, where the missing boat anchor was brought on board by Tamkoi, it having been recovered during our absence. Rewarded him for

this and explained to him that it will depend on the behaviour of his people towards visitors and the natives of the other islands whether pots are made at Port Blair and disposed of to the natives of Car Nicobar and of the Central and Southern groups to such an extent as to seriously affect his trade. Specimens of Port Blair pots of the pattern made at Chowra were shown to him. Proceeded on our way at 7 A.M. Owing to swell, could not land at Batti Malve.

Anchored in Sawi Bay at 1-30 P.M. Landed and found that Mr. Solomon had just completed the Census of the island. He reported that the only difficulties he had met with were at Lapati where the headman Edwin had proved very obstructive, misrepresenting the population of his village by no fewer than 412 persons, which caused much delay and trouble. He added that Edwin had been abetted in this by Sweet William and Chon, and that the two former had absconded and were in hiding. Only Chon, therefore, was produced and he was sent to the steamer in order that he might undergo a course of discipline at Port Blair. I would recommend that on the next visit to Car Nicobar the two others be brought away. Edwin having on previous occasions given trouble and proved insubordinate, I think it is advisable to remove him from his position as "headman" and appoint another man in his place.

The result of the Census is shown to be as follows :—

Islands.	1901								1883		
	Villages.	Huts.	Men.	Women.	Boys.	Girls.	Total.	Foreigners.	Villages.	Huts.	Population.
Car Nicobar . . .	13	748	1,126	999	704	622	3,451	181	13	...	3,500
Chowra	6	130	172	178	100	72	522	...	5	94	690
Teressa	11	112	179	165	158	122	624	12	8	109	571
Bompoka	2	18	29	25	16	8	78	...	2	15	86
Camorta	30	98	170	164	85	69	488	7	26	106	359
Nancowry	13	48	93	86	24	21	224	...	14	78	222
Trinkat	4	25	42	39	12	9	102	1	8	34	85
Katchall	34	64	104	109	31	37	281	...	37	66	183
Great Nicobar . . .	15	25	42	35	6	4	87	...	23	45	138
Little Nicobar and Pulo Milo	15	21	25	24	7	11	67	...	19	27	74
Kondul	3	8	14	14	5	5	38	...	3	8	27
Total .	146	1,297	1,996	1,838	1,148	980	5,962	201	158	...	5,935

From these figures it appears that, on the whole, the population has remained fairly stationary since the last Census. With regard to Chowra, I am inclined to believe that the decrease is due not only to the fact that many of the natives have migrated to Camorta and other Islands of the group, but to the number of the children now on the Island having been understated to the enumerators. Much of the increase shown in the Central Group and Teressa is attributable to immigration and very probably also to incorrect information having been furnished to the enumerators, either at this Census or the last one. As to the Shom Pen, it is still impossible to ascertain their numbers any more than it is at present to enumerate the Onges and the Jarawas at the Andamans. As regards the foreigners resident at the Nicobars, a separate return is attached.

Saibu was appointed Chief of Malacca village in place of Iskol, who was lately sent to Port Blair for abetment of murder, and the prescribed certificate and uniform were presented to him. Having received from the Government Agent his diaries and returns, we returned to the steamer, which left for Port Blair at 4-30 P.M. and arrived here at 10 A.M. on the 14th January.

Canisters, containing tea, and tea-pots were distributed among the leading natives at the several islands visited, and they were shown how to make tea. It is hoped that in time, if encouragement be given, the majority of them will be weaned from their propensity to indulge in *tari* and other intoxicants. Fourteen sets of Port Blair-made pots were left with Solomon at Car Nicobar whence they can be disposed of on future trips. I had several applications for pots of a larger size.

Census of the foreign residents at the Nicobar Islands on 13th January 1901.

	Burmese. *Buddhist.*					Shans. *Buddhist.*					Laccadive men. *Mahomedan.*					Maldive men. *Mahomedan.*					Chinese. *Buddhist.*					Zerbadis Burmese. *Mahomedan.*					Boras. *Mahomedan.*					Hindustani. *					Uriya. *Hindu.*					Madrasis. †					Total.				
	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.	Total.	Men.	Women.	Boys.	Girls.
Car Nicobar	97	...	...	...	97	34	1	...	...	35	16	...	...	...	16	3	...	...	...	3	5	...	...	...	5	6	...	.	...	6	4	...	...	...	4	3	...	...	...	3	1	...	...	...	1	2	2	4	3	11	171	3	4	3
Chowra	...	...	...	...	...	...	...	..	...	...	...	...	...	..	...	..	...	...	...	...	.	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Teressa	12	...	...	...	12	.	...	...	...	...	.	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	.	...	12	...	...	...
Bompoka	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	..	...	..	...	...	..	...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Camorta	4	...	...	...	4	...	...	..	...	...	...	...	...	..	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	1	1	1	...	3	...	..	...	.	...	..	..	...	...	...	5	1	1	...
Nancowry	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...
Trinkat	1	...	...	...	1	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Katchall	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Great Nicobar	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Little Nicobar and Pulo Milo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kondul	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	.	..	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	114	...	...	...	114	34	1	...	...	35	16	...	...	...	16	3	...	...	...	3	5	...	...	...	5	6	...	...	...	6	4	...	...	...	4	4	1	1	...	6	1	...	...	...	1	2	2	4	3	11	189	4	5	3

201

* { 3 Hindus.
  3 Mahomedans.
† 11 Christians, Protestant.

N.B.—187 are traders.

Port Blair;
14th January 1901.

E. H. MAN,
Deputy Superintendent, Port Blair.

Diary of Captain A. R. S. Anderson, I.M.S., Senior Medical Officer, Port Blair, of visit to the Nicobars from 4th to 13th January 1901, for the purpose of taking a Census.

4th January 1901.—Left Port Blair at 2 P.M., weather calm with slight north-easterly breeze.

5th January 1901.—Car Nicobar in sight at daybreak; at 8 we dropped anchor in Saw Bay. After breakfast the Census Officers landed about half mile south of Mus, and at once directed their steps to Solomon's house. Ascending some 20 steps in the low cliff at the back of the beach we reached a well-beaten, broad, hard, earthen road with a sign-post directing us to "Temple Villa." Magnificent cocoanut trees, many fully 100 feet high, stretched on every side, and their boles formed the play-ground of vast numbers of the commonest Andamanese lizard *Gonyocephalus subcristatus*. Many of these I and some Nicobarese boys captured with a running noose tied in a shred of cocoanut leaf. Even when put round their necks the lizards do not fear this snare. After Solomon had been duly instructed regarding the Census operations, I inspected the meteorological instruments and found them and the houses containing them in good condition, except the thermometer shed, the northern roof of which was partly off—indeed, had never been put on from the mistaken idea that ample ventilation was required. The consequence of this has been that, when the sun is north of Car Nicobar, he sends his rays freely into the interior of the shed, and causes the thermometric readings to be considerably higher than those of the circumambient air. I instructed Solomon to have the shed re-thatched and the northern roof filled in, leaving a small hole only for ventilation.

The situation of the meteorological station at Mus is by no means good,—a wide clearing in a forest of high trees. The wind gauge must frequently register both wrong force and direction of wind, as the tree tops are considerably above the wind vanes. For the same reason the rain gauges must be erroneous. Unfortunately, there appears to be no other and unobjectionable site in Mus. I afterwards walked through the village of Mus and found that the most prevalent disease is, as is the case in the Laccadive Islands, itch. Both children and adults are affected, and some most severely. I instructed Solomon how to cure the disease, and gave him appropriate remedies. There is also a little *filariasis* among the people. The most striking feature of Mus is the large number and variety of fruit trees; for, in addition to cocoanut and pandanus, there are shaddock, pumelo, orange, lime, papaya and guava trees. Fowls and pigs breed very freely, and are extremely plentiful. Imported Indian cattle and goats flourish, but the latter are frequently killed by the village pariah dogs. A little cotton is grown and collected.

6th January 1901.—This morning we reached Chowra, landed after breakfast, and I took the Census of the inhabitants of Pal and Raichafé. Here, alone, did I experience any discourtesy from a drunken Nicobarese man. As he was considerably interrupting the work, one of the policemen removed him from the *machan* under his hut and, with entire approval of the other inhabitants, laid him down in the shade of a tree at a sufficient distance from our operations. Thereafter the enumeration proceeded smoothly and swiftly. The inhabitants of Chowra suffer very greatly from *filariasis*. Of the eleven occupants of a boat that put off to us, no less than five were afflicted with the disease. One had *elphantiasis* of one leg, the other four sufferers had lymphatic swellings and enlarged glands in the groins; two of the eleven men were also affected with itch. From what I saw, from one-third to one-half the people are diseased.

At the bottom of each ladder leading into a Nicobarese hut on this island, is a large flat *sponge* to wipe the feet on, and, on hunting on the beach, I found very large numbers of these sponges at high-water mark, and in the afternoon found a few growing on the coral reefs fronting the island. Although most of the sponges are commercially useless, still some I saw were of value and one or two were of very fair quality and quite fit for bath use. A limited trade in this commodity might easily be established and is, I consider, well worth fostering. The Andamanese informed me that similar sponges are to be found on parts of the Andamans, and if so they are worthy of careful culture, and the matter of investigation. On the lime trees, but extremely difficult to see owing to their green colour perfectly harmonising with the leaves of the trees, and its yellow throat with the fruit, I caught a couple of *Calotes jubatus*. In the evening I visited the reefs fringing the island and got a few sponges growing on the stones.

7th January 1901.—Reached Bengala in Teressa early this morning. Mr. Man at once landed and took Census. A large sign-board with the name of village inscribed thereon was also landed and hoisted into some cocoanut trees to serve as a direction to future mariners. When this work was accomplished we steamed to Kerawa, where we all landed, and at quarter to one, I, with a guide and Adolph, started off across the island to Aöang and Hinām. The path, after leading for about three-quarters of a mile through the usual thick coast fringe of cocoanuts, pandanus and creepers, emerged on open grass-covered downs across which I walked quickly for over an hour, probably rather over three miles. The grass is mostly quite short, from 6 inches to 4 feet,—the usual length about one foot,—and consists of several kinds; one with very fine, delicate leaves, another with coarse leaves like coarse *dûb* grass. On the upper parts of the down were very numerous pandanus trees, at places forming veritable pandanus thickets. In many places the forest and the grass land meet in such a perfectly straight line that human agency in the production of this grass land is very strongly suggested. The meeting of the forest and grass land takes place on the sides of hills where sometimes forest, sometimes grass, covers their summits. In most places, however, the narrow and often very steep valleys descending from the grass land are clad right up to their tops with trees, although the trees on the top are merely rooted to rocks, and no difference can be seen between the soil bearing the trees

and the adjacent soil producing merely grass. That the villagers do not consider the soil of the downs poor or unproductive, is proved by their enclosing parts of it with fences to form vegetable gardens of which we passed several on our road. Finally, I was informed by a Nicobarese that they yearly fired the grass to keep the downs free from trees which otherwise would spring up. For these reasons, I disagree with those observers who consider the grassy downs on Teressa at least natural and, with difficulty, explicable phenomena. In the margins of the forests, Nicobar imperial pigeons (*Carpophoga insularis*) were very numerous. On returning to the ship in the late afternoon some of the deep, well-wooded valleys in the middle of the island resounded with loud cries of the Megapode, the cry closely resembling the croaking of the bull-frog. Rocks formed in coral-seas were found to constitute the larger part of the hill to a height of at least 200 feet about midway between Bengala and Kerawa. I shot a Megapode as it flew into a tree with a cry of alarm, and it proved excellent roasted.

8th January 1901.—Reached Bompoka early and Mr. Man landed and performed the necessary Census operations. Thereafter, we left for Camorta and reached Nancowry Harbour in ample time to make all the necessary arrangements for the Census on the morrow and to visit the site of the old Danish Settlement.

9th January 1901.—Started early, with Nicobarese guide in boat with Nicobarese canoes in tow, and landed at Domyau where I collected information regarding the number of inhabitants in Olenchi, Monak, Oal-ok-heak, Hoe-chafa, Fop-dak, and Domyau itself. With the exception of Domyau, the above names merely represented the sites of one or two huts. Behind Domyau there was a very large accumulation of oyster shells, forming a veritable kitchen-midden.

I then rowed some mile or mile-and-a-half eastwards to the narrow neck of land separating Nancowry from Expedition Harbour. The Nicobarese canoe was carried across the neck some 100 yards, and, after breakfast under the trees, I started for Hoau, about a mile distant, where I got information of the number of the inhabitants of the villages surrounding Expedition Harbour. The Nicobar imperial pigeon was very plentiful round the Harbour, and of the Andaman cuckoo-dove I shot one specimen for identification and saw several others of the same species.

In the evening I rowed round the southern part of Nancowry Harbour, where the most noticeable marine products are some very large digitate *alcyonaceæ* of at least two species. The stocks of these animals are frequently one to two feet in diameter, and the fingers at least one foot in length.

10th January 1901.—Reached Oyau-tapah on east side of Katchall early, landed and took Census of Hoinipoh, Moih-payala, Tapain, Hoin-henpoan, Olenchi, Koila-tapain, and Oyau-tapah itself. Although we landed as early as seven, the headman was drunk, as were most of the other male inhabitants. After breakfast we walked some mile or more to a limestone cave in the forest, and at an elevation of perhaps 200 feet. The whole hillside is composed of weather-worn coral limestone, and the caves are merely unusually large cavities in this stone. At the entrance to the caves we captured two pit-vipers [*Trimeresurus cantoris* (*?*)]. One was so severely injured in his capture that he subsequently died. The other is still alive and, in spite of his enormous fangs and poisonous aspect, is unable to inflict fatal bites on a guinea pig. Earth-worms were very plentiful beneath the stones in the cave, and several were preserved in spirit. The bats (*minsiopterus schreibersi*), which Ball noticed in this cave thirty years ago, are still there in large numbers.

On returning to the ship, anchor was at once weighed and we steamed over to Dring Harbour in Camorta, where the necessary Census work was done by Mr. Man.

11th January 1901.—Reached Kondul and, while Mr. Man did the Census work and Mr. D'Oyly went off to board and examine a Chinese junk, I collected reptiles ashore.

12th January 1901.—Reached Katchall West early, and, after taking the Census of the surrounding country, left at about 10 for Puli Pilau in Camorta. From this hamlet we walked southwards about four miles and, on reaching the open down country, were shown plentiful and recent tracks of buffalo, but although we waited till evening, we caught not a glimpse of the animals we were in search of.

13th January 1901.—Reached Mus in Car Nicobar about 1 P.M., and after lunch landed, saw Solomon and his Census papers, collected some crabs under fallen cocoanut trees, acquired a living mouitor (*Varanus sp.*), prescribed for some sick people, and left between 4 and 5 P.M. for Port Blair, where we arrived on January 14th soon after 10 A.M.

Diary of Mr. H. H. D'Oyly, Third Assistant Superintendent, Port Blair, on a cruise to the Nicobar Islands from the 4th to the 14th January 1901, for the purpose of taking a Census.

4th January 1901.—Embarked on the R. I. M. S. *Elphinstone* with the rest of the party on Census duty, Mr. E. H. Man, C.I.E., and Captain A. R. S. Anderson, I.M S., the police escort, ten convict boatmen and others, as ordered by the Chief Commissioner. Started at 2 P.M. for Car Nicobar. The weather was fine with wind from east-north-east.

5th January 1901.—Anchored in Sawi Bay, Car Nicobar, at 8-15 A.M. There was a big swell setting in from south-west, although the wind was east-north-east and the weather quite fine. Mr. Solomon came off from Mus village with six Nicobarese boys in a canoe. It was noticed that all these boys were suffering from itch. Solomon said that the disease was

prevalent all over the Island. Captain Anderson advised Solomon to induce the people to take warm baths, apply sulphur ointment to their bodies, and wash their clothes in boiling water, and obtained ointment for the purpose from the ship's stores. The Census party went ashore at 9-30 A.M. landing through the surf in a canoe. The chiefs Scarecrow, Frank Thomson, and Fat Boy met the party. Mr. Solomon's house was visited and his school and the meteorological observatory were inspected. Fourteen boys were studying at the school, and went through some physical drill well. I noticed several foreign traders, one or two Mahomedans, but mostly Burmans, at Mus village; and was told by Solomon that there were about 200 on the Island making *kopra*, their vessels, seven in number, being away at Camorta or other Islands. Handed over certificate for Saibu, new chief of Malacca, *vice* Iskol, who is undergoing imprisonment at Port Blair. Distributed letters received from the Post Master, Port Blair, for traders here. Mr. Man gave directions to Mr. Solomon for taking the Census. The chiefs Offandi, Sampson and McPherson met us at Mus. One of the wire stays of the beacon on the shore had given way through rust. All the stays might well be renewed. Returned to the ship taking on board five Car Nicobarese and the Government canoe for use on the tour.

6th January 1901.—Left Sawi Bay at 12 o'clock last night, and anchored off Sanenya village in Chowra Island at 7-45 A.M. Three or four canoes came off to us. The people seemed friendly enough and informed us that their headman Tamkoi was away on his annual visit to Nancowry. The Census party went ashore at 10 A.M. landing in canoes through the surf, which was not much. Having guides detailed, I proceeded to do my share of the work at Kotasuk and Olteak villages. Details of the enumeration will be found in the forms drawn up later and submitted through Mr. Man to the Chief Commissioner. Met Mr. Man and Captain Anderson at 1 P.M. at Sanenya and returned to the ship. At 4-30 P.M. I went ashore again to check the enumeration of the morning. During return lost the anchor of the Settlement boat; the anchor being caught under a rock in about 3 fathoms of water. Being too late to recover the anchor, the Nicobarese were offered presents if they would get it and return it on our way back from the Southern group of islands. The ship remained at this anchorage all night.

7th January 1901.—Left Chowra at 5 A.M. and arrived off Bengala village on Teressa Island at 7 A.M. The headman Gibson with his wife and child came on board. He was under the influence of liquor. A new beacon, with the name Bengala marked on it, was taken ashore by Captain Wilson and placed in position in front of the village. Mr. Man landed and took the Census of three villages near Bengala. The ship then went on to Kerawa further south on the same coast and landed Captain Anderson and myself. Procuring a guide I walked across the Island, about 3 miles to the village of Laksi on the West Coast, over high open lands covered with grass with Pandanus trees only, scattered about. Found the headman Wenechia away, said to be looking after a plantation of yams. Obtained information for the Census and returned to the ship, getting on board at 4-30 P.M. Remained at this anchorage off Keráwa for the night.

8th January 1901.—Left Keráwa anchorage at 5 A.M., and arrived off Poahat village on Bompoka Island at 6 A.M., accompanied Mr. Man ashore to take Census of that village and of Yatkirana, the only two villages of this Island. At 7-45 A.M. the ship left Bompoka for Nancowry Harbour, arriving there at 11-30 A.M. The Government Agent Rati Lal and headman Tanamara and others came off and reported all well. The Census Party went ashore in the afternoon and arranged for guides to visit the different parts of Camorta, Nancowry and Trinkat Islands the following day. Two bagalas from Bombay were lying in this harbour.

9th January 1901.—I left the ship with three of the officers at 6-30 A.M. in a steam launch, towing a Nicobarese canoe, with guides. We first visited Hentoin village on the east coast of Camorta. The tide being low I had to walk over a coral reef for about 200 yards partly under water. Took the Census of this village and of four others to the north on the same coast. Three others, which were in existence at the Census of 1883, were found to be abandoned. Then proceeded in the steam launch from Hentoin across to Trinkat Island, making for Okcheâka, the principal village there. A Chinese junk was lying a mile off the shore opposite this village. The crew told us that the water was too shoal for us to proceed further. There was a fringing coral reef extending to a mile from the shore. The steam launch was anchored and the party taken ashore in sampans by the crew of the junk. Even so there was difficulty as the boats were scraping over coral most of the way. I took the Census of Okcheâka and of the three other inhabited villages of this Island. Found that seven villages had been abandoned since the last Census. We got some imperial pigeon and teal shooting at a *jhil* close to the landing place. The tide being high on our return to the launch, the passage over a mile of coral reefs was effected without difficulty in the Chinese sampans. We reached the ship in Nancowry Harbour at 4 P.M. Remained here for the night.

10th January 1901.—Left Nancowry Harbour at 6 A.M. for the east coast of Katchall, where Mr. Man was landed at Kirehenpoan at 7 A.M. and Captain Anderson and myself at Oyau-tapah at 8 A.M. Moung Poen, the headman of all the villages on the east coast, was found to be very much the worse for liquor, and several men were lying in his hut intoxicated. We took the Census of the seven villages allotted to us and then returned to the ship and were taken to an anchorage off Hoinipoh village, where Mr. Man was picked up. At 11 A.M., Captain Anderson, Captain Wilson and other officers of the ship, and myself landed and walked to some remarkable caves, 1½ miles inland and at a considerable height. The place is well worth a visit. The caves are of coral limestone formation with stalactites. Illuminated by a ship's blue light, a most beautiful effect was obtained. Near Hoinipoh village was an enormous clump of the giant bamboo, the finest I have ever seen. The ship

left Hoinipoh at 2-30 P.M. for Dring Harbour, where she arrived at 3-30 P.M. I went ashore with Mr. Man and Captain Wilson to take the census of the villages in the north-west of Camorta Island. Could not get all the information required about five villages at the extreme north, so it was decided to pay a visit there on the return journey from the southern group of islands. Captain Wilson and myself went for a long walk in the adjoining country to the north in search of wild buffalo. There were fresh tracks all over the place, but no animals were seen. The ship remained at this anchorage, Dring Harbour, for the night.

11th January 1901.—Left Dring Harbour at 5 A.M. for Kondul, where we arrived at 12-30. Mr. Man landed to procure all information as to Great and Little Nicobar as well as this Island. I went off in the steam launch with Lieutenant Gray to visit a Chinese junk, lying off a village on Little Nicobar, 5 miles off. The Chinaman was found to be the *Ching Taung Fat;* Master, Fu Chow Pian. A vessel of 38 tons with a crew of 12 men. They had a license signed by Rati Lal, Agent at Camorta. A search was made of the junk with the help of two of the crew of the launch, but nothing contraband was found ; we got back to the *Elphinstone* at 5-30 P.M.

12th January 1901.—Left Kondul anchorage at 12 o'clock last night and arrived off Oalkolokwak on the west coast of Katchall at 6-30 A.M. Mr. Man landed to procure information about all the villages on this coast of the Island. Left Calkolokwak at 10 A.M., and arrived off Puli Pilau on the north-west coast of Camorta at 1-15 P.M. The headman Keapshe came off in a canoe and gave all the information required about the villages at the north end of the Island. Captain Wilson, Captain Anderson, Lieutenant Campbell and myself landed at the village and walked about 4 miles to some open country in the south, in search of buffalo, which were said to abound in these parts. We saw several fresh marks of the animals, but not one buffalo itself. Did not get back to the ship till 8 P.M. There was a barquantine from Moulmein, lying at anchor off the coast near here.

13th January 1901.—Left Puli Pilau anchorage at 3 A.M. and arrived off Chowra Island at 6-30 A.M. Some people came off in a canoe, bringing the recovered anchor, lost from the Settlement boat on the 6th instant. They were given a present of tobacco. Mr. Man showed some earthen pots made at Port Blair to the Chowra people, and warned them, that unless they behaved themselves in the future, their monopoly of the manufacture of pottery could be stopped by us. Left Chowra at 7 A.M. and arrived in Sawi Bay, Car Nicobar, at 1-30 P.M. Mr. Man, Captain Anderson and myself went ashore and walked to Mr. Solomon's house at Mus, to get the result of his Census work on this Island. Three subchiefs, Edwin, Sweet William and Chon, of Lapate village, were said to have obstructed his work and to have wilfully omitted 412 of their population in the enumeration. Chon was arrested and taken on board for conveyance to Port Blair as a punishment, the other two had absconded into the jungle, no doubt to avoid arrest. There were two sailing ships from Burma lying in the Bay. After obtaining all necessary information for the Census, which is now completed for the whole of the Nicobar Islands, we went on board and left at 4-30 P.M. for Port Blair.

14th January 1901.—Arrived at Port Blair at 10 A.M. The weather throughout was very fine with moderate winds from the north-east veering more to the east occasionally.

Diary of Lieutenant N. F. J. Wilson, Commander, R. I. M. S. "Elphinstone," on a cruise to the Nicobar Islands with the Census party of 1901.

4th January 1901.—Left Port Blair at 2 P.M., with a moderate east-north-east wind and sea.

5th January 1901.—Arrived at Sawi Bay at about 8 A.M. There was a slight set to the northward between the Andaman and Nicobar Islands. Sea was fairly smooth, but a south-west ground-swell caused considerable surf in the Bay. The party landed without difficulty. Remained here all day. Mr. Man, Captain Anderson and Mr. D'Oyly landed. There are stated to be 200 foreigners on the Car Nicobar Island.

6th January 1901.—Left Sawi Bay for Chowra Island, passing to eastward of Car Nicobar and Batti Malve. The weather continued fine with south-westerly swell. Arrived at Chowra at 7-30 A.M. After breakfast Mr. Man and his party landed and proceeded to the different villages to take the Census. They returned about 5 P.M. No difficulty seems to have been experienced by any of them, and the natives proved quite friendly. There was a slight falling off in the numbers from the last Census. Another party from the ship landed in the evening to shoot, but got nothing. The weather was very fine and sea quite smooth.

7th January 1901.—Proceeded for Bengala Village, Teressa Island, at 5, arriving at the anchorage at 7 A.M. Gibson, the headman, came off much the worse for liquor and brought his wife and child with him. This woman is the only one I have seen amongst these Islands, who does not appear shy or frightened when strangers are about; she was perfectly at home on board and travelled to Kerawa with us, probably to keep an eye on her drunken husband, who was quite incapable of looking after himself. Mr. Man landed to take the Census of Bengala and Chanúmla, whilst a party of ship's people proceeded to look for a site to erect a beacon. There were several good trees which would have been excellent for erecting the mark on, but they were quite inaccessible in the time

at our disposal. So we had to fix it up on one of the cocoanut trees which fringe the shore. The beacon consists of a wooden oval-shaped disc, painted white, 9 feet by 6 feet, and with the word Bengala on it in black letters. It was fixed at a height of 25 feet from the ground. The work was completed by 11 A.M., when the ship proceeded to Kerawa. Anchored off this village at 11-30 A.M. It cannot be termed an anchorage, for although the anchor was dropped in 17 fathoms the ship's stern when swung inshore was in $3\frac{1}{2}$ fathoms! This with only 20 fathoms chain out. Fortunately the weather was very fine without any swell, so the vessel laid here in safety. Mr. Man and party landed on Census duty, he taking the central villages, and Captain Anderson Hinam on the west coast and Mr. D'Oyly Laksi on the south-west. These two officers had a considerable walk through grass and other jungle. Plenty of pigeons, some quail and megapodes were seen. It was not intended to remain here all night in view of the bad anchorage, but Captain Anderson was so late in returning that it was too dark to seek another. He appears to have lost his way and had been wandering in the jungle. He shot and brought back a megapode and also some pigeon. Some trees on the beach were painted white by the ship's people to serve as a mark when approaching the village.

8th January 1901.—At 5 A.M. weighed and steamed across to Bompoka, anchoring off Poahat village. The weather was very fine but south-west swell continues. A trading barque was at anchor here. Messrs. Man, D'Oyly and myself landed and interviewed the villagers. A further falling off in the numbers was observed here and the people seemed unhealthy. From the number of gin bottles lying about, the cause was not far to seek. Very good fresh water is obtainable here from a stream at the back of the village; the barque's crew were watering ship from it. I saw several very good plantations of fruit trees (papaya, plantains and limes) fenced in very neatly to keep out the pigs. The wreck *Queen of England* is nearly demolished by the south-west monsoon rollers. The entry by the Master in the book is amusing. "Barque *Queen of England* wrecked from loosed anchor." Whilst at anchor here, the beacon at Bengala could be distinctly seen with the naked eye. Weighed at 7 A.M., and proceeded for Nancowry Harbour, arriving at 11-45 and anchoring in Spiteful Bay.

Mr. Man interviewed the several headmen and arrangements were made for an early start next day. A party landed at Malacca in the evening. Two dhows were at anchor in Spiteful Bay and a country barque off the western entrance of Nancowry Harbour. It is astonishing what depth of water these vessels anchor in. This latter must have been anchored in 30 fathoms at least and how they weigh their anchor with such a length of chain out, I cannot imagine.

9th January 1901.—After *chota hazri* the several expeditions started. Mr. Man, his Andamanese, etc., left in one of the Settlement boats for Malacca. The gardeners went in this boat. Captain Anderson, with Police, Nicobarese, etc., in the other Settlement boat, left for the villages on the south coast of Camorta and Expedition Harbour; he took a canoe in case he should want to cross the neck of land into Expedition Harbour.

The ship's steam-cutter towing the Car Nicobar canoe, took Mr. D'Oyly, escort and guide to visit the villages on the east coast of Camorta and Trinkat. This expedition included several ship's people who hoped to find some shooting on Trinkat. I remained in charge of the ship and to lay out the buoy on Navy Point, as I feared the sun would be too much for me in the steam-boat all day, if I went to Trinkat, as I had wished to do. During the morning laid out the buoy on Navy Point in 10 fathoms, painting it red in accordance with the international system of buoyage. I also visited the outer buoy, which I found in 7 fathoms and apparently in its proper position. This buoy, which is a very fine one, requires cleaning and if the time could be spared the station ship could easily do it. The chain mooring would probably require renewing. During the afternoon the various expeditions returned, the one from Trinkat bringing some teal and pigeon. They had not sufficient time to visit the northern lagoon which is the largest. Mr. Man brought back a "current slip" which had been picked up in a bottle on the north-east coast of Camorta Island, having originally been thrown overboard from the P. and O. S. S. *India*, latitude 10·04 north and longitude 64·49 east on the 15th April, 1900, the distance being roughly 1,800 miles and the bottle must have threaded its way through the Laccadive Islands and round the south coast of Ceylon.

10th January 1901.—Left Nancowry Harbour at 6 A.M., and steered across towards Kapanga, a village on the north-east coast of Katchall Island. There are no soundings shown on the chart, and this village appears not to have been often visited. At about 2 miles off shore we got 13 fathoms and here we dropped a boat and Mr. Man to visit this village and the others in E. Bay. Turning out to sea again, the ship passed over a bank of 4 fathoms, and this appears to be the usual depth of water in E. Bay, with possible shoaler patches.

Steering south we brought up off the village of Oyau Tapah and landed Captain Anderson and Mr. D'Oyly. This was a very good anchorage and due note was made of it in the station book. These officers returned at 10 A.M., and Mr. Man having arrived by boat at Hoinipoh we proceeded to the anchorage off that village. Whilst here opportunity was taken to visit caves, which lie away in the jungle about a mile from the coast. They well repaid a visit, and are evidently formed by the sea in some bygone time when the island was at sea level. Bats and snakes were found in the caves and duly collected by the scientific member, and pigeons in numbers were shot on the way and on coming back again. Note was also made of a splendid clump of giant bamboos, lying to the right

oi the path to the caves, and about five minutes' walk from the village. In the afternoon we proceeded to Dring anchorage and landed in the harbour at 4 P.M. Besides the Census work conducted by Mr. Man, an unsuccessful search after buffalo was made. Their tracks were very plentiful and comparatively recent, but they were "conspicuous by their absence," as they say in Ireland. Returned to ship at 7 A.M., and received a visit from a coast trading *nakoda*, who came to *salaam* the *burra* Sahib and to show us his papers which were in order.

11th January 1901.—Left Dring at 5 A.M., and passed through channel between Menchal and Little Nicobar Islands, stopping to sound on two uncharted shoals, one of which has been noticed here when passing last October. Found 11 fathoms on the first and 8 fathoms least water on the second. Arrived at Kondul East anchorage at 0-30. Mr. Man landed and Lieutenant Gray and Mr. D'Oyly went away in ship's steam-boat to search a junk which was at anchor off Ekoya village on the Little Nicobar; she was in possession of the necessary permit to trade, so all was correct. Captain Anderson and myself landed at Kondul in the evening.

12th January 1901.—Weighed from Kondul East at midnight and passed out to the west of Little Nicobar Island, steering for Katchall West Bay. Anchored here at 6-50. A magnificent surf was breaking on the north coast, showing how unlikely would have been any attempt to land at any other point to the west of these Islands. Fortunately here there is a well-sheltered landing round the corner, and Mr. Man landed without difficulty.

Proceeded for Koihoa (north coast Camorta) at 10 A.M., it being found necessary to visit this place to complete the census of this Island, owing to the recent arrival of outsiders from Chowra who are said to be settling here. Arrived at 1 P.M., and found several flourishing villages in the Bay. A party landed to shoot in the afternoon, but saw nothing and had a long walk back through the jungle in the dark, with the help of a cocoanut leaf torch to light the way.

13th January 1901.—Left at 3 A.M., and stopped off Chowra Island at 6-30. The chief came off and brought the anchor lost here on the 6th. After Mr. Man had communicated with the chief we proceeded for Sawi Bay, passing Batti Malve at 10 A.M., where the sea was breaking heavily and where we should have liked to land had time and weather permitted. Passed up west coast Car Nicobar Island, and anchored in Sawi Bay at 1-20 P.M. Mr. Man and party landed, returning at 4-20, when we weighed and proceeded for Port Blair.

14th January 1901.—Arrived Port Blair at 10 A.M.

APPENDIX H.

[See also Chapter III of this Part of the Report.]

Extracts from an unpublished Report on the Central Group of Islands, dated 2nd December 1881, by the late Mr. A. de Roepstorff.

PANDANUS.—Next to fish in importance as an article of food is the pandanus. The pandanus is found in fifteen different species in the Nancowry Group and in still more species at the Southern Group. One grows wild on the grass covered hills and fourteen in the alluvial belt between the mangrove and the true jungle. The latter are commonly considered as one species, the *Pandanus Mellori*, but there are really fourteen varieties: six yielding red *pandanus* bread (Nicobarese, *larom*), eight white. The *Pandanus Mellori* is regularly possessed by the natives. The pandanus topes follow inheritance, as do the cocoanuts. The fruit is carefully watched and when of proper ripeness plucked and stacked under the house. The fruit is large and weighs when brought in about 50 lbs. When quite ripe the fruit is boiled for about six hours. It is then taken out and divided, each fruit consisting of pods or scales. Each scale is then, with a mussel (bivalve). squeezed out and now appears the farinaceous substance that is eaten. It is, however, full of fibre and this is extracted by passing threads through the dough. This is a very laborious and slow process. When the stringing is done it is quite free of all foreign matter. It is then boiled again and wrapped up in leaves in neat bundles and slung over the fire-place, where the smoke ripens it and it will keep for more than a month.

COCOANUTS.—The third great article of food is the cocoanut. Cocoanuts are in these islands divided into five stages of ripeness.

(1) *Ngoat:* this is the ripe cocoanut that is collected on the ground and is the cocoanut of the trade.

(2) *Kayoak:* this nut is oily and produces by hand process the finest oil, but it contains much water. This is used to smuggle in among nuts for sale, when the owner clears one of his plantations. About one-sixth of the nuts bought by the traders and to the Government are in this stage. It is plucked from the trees. In this stage of ripeness the nut is used for food.

(3) *Kohinlonge:* the stage in which the cocoanut is soft but unfit for oil making. Is used for feeding dogs, pigs and poultry, as it is soft, easy to break and sweet.

(4) *Yenong* (the young cocoanut, *dab*): this is the stage when the kernel is only beginning to form and is of a soft watery consistency and in it the nut is only used as a drink. At that stage it is quite full of water and may contain as much as 2½ lbs. of water.

(5) *Komyoa,* when the nut is unfit for use. As human food, the nuts in the second stage are used for eating and in the fourth stage for drinking purposes. After a careful enquiry I find that two nuts of the second stage may be reckoned for every inhabitant daily, which, if the population be taken at 5,500, would give an annual consumption for human food of 4 million nuts a year. The young cocoanut may be estimated to be used in not less than that number, giving another 4 million nuts: (the nuts used for feeding pigs and poultry will be mentioned separately).

I may also mention that they know how to extract toddy from the cocoanuts and it is used very freely.

CYCAS.—There is also a *cycas* found in these islands that is used for food. The fruit is about the size of a duck's egg and is made into a paste, but it is only used for feasts, when it is made into cakes (*dimile* or *nombun*).

WILD PIGS, DOMESTIC ANIMALS, PIGS AND POULTRY.—The wild pig is abundant, and the natives enjoy the sport very much. It is eaten.

Of domestic animals the Nicobarese have poultry, pigs, dogs and cats. They never kill poultry or pigs for food, except at their feasts, and then they pretty well clear out a village of all the pigs and poultry.

The boars are all castrated and the sows must, to be fertilised, find the wild boars, so that they really have the wild pig domesticated. The pigs are half wild and the castrated pigs are carefully fattened and attain an enormous size. They never kill sows, and as they keep the boars for their feasts and as also it is a sign of wealth and gives standing to have many pigs; they put great store on the pigs and are unwilling to part with them. The poultry they are more willing to sell. The pigs are fed on the refuse of the *pandanus* and on cocoanuts in the third stage, and I think I may be within the number if I estimate the nuts used for this purpose at 2 million, giving a total consumption of 10 million nuts of all stages in the islands.

RICE.—The use of rice is increasing in the Islands and most of the Nicobarese feed at certain times of the year partly on rice, and there may be a few (I know only one man) who do not eat *pandanus* and nuts, but only rice.

CULTIVATION.—On the Southern Islands where jungle abounds each village has a garden. This consists of a piece of jungle far from the village (to be away from the pigs) which is roughly cleared. On it are planted plaintain, one species of excellent yam, pine-apples, *guiyan* (edible *arum*) of a very big sort, sugarcane and various sort of Indian

vegetables. The gardens are only slightly weeded and have in the third year to be abandoned on account of the secondary jungle, although they, for a time, continue to yield some plantains and pine-apples. Most villages have lime trees of very good quality.

Exceptionally Situated Tribes.—Two tribes form an exception to the description I have given of the Nicobarese.

(1) *Chowra.*—The most populous island for its size is Chowra. Fixed on to one high rock extends a big patch of coral alluvium. On this the people live densely crowded in very big houses. As the sea is very deep right up to the coast and does not offer any fishing grounds, the island is highly cultivated. The cocoanuts are few; absolutely fresh water does not, I think, exist, and brackish water is scarce. The best part of the island resembles a park, fruit trees, a few cocoanut palms, here and there a few jungle trees and occasionally hedges in patches of cultivated ground. This tribe I consider to have been originally the same as the one I will subsequently mention, namely, the Shom Pen, and it may have, while in possession, cleared the jungle away on the three islands of Camorta, Nancowry and Trinkat, having cultivated the islands before it was decimated and driven away by the present inhabitants: the only remains of it being now found on Chowra and in the interior of Great Nicobar. The point that gives the Chowra people an importance out of proportion to their neighbours or property is their manufacture of pots.

(2) *Shom Pen.*—The second tribe are the Shom Pen who live in the interior of Great Nicobar. They are a different race from the coast people, cultivate extensively, but live in a very primitive way, having no cooking pots. To illustrate these people two papers were read by me before the Asiatic Society of Bengal. With this people we were not then in communication. The only attempts that have been made were by myself in three visits to the islands, last time with Colonel Cadell, V.C.

Manufactures.—The manufactures of the islands of local importance, but of none for foreign trade, are—

(1) *Cooking pots.*—These are exclusively made by the women of Chowra. They are of uniform thickness, the lower part the section of a ball rising straight, but in different sizes, to fit inside each other. They are made to fit the bottom of the boats so as to be stowed away easily. They are made by kneading the clay on a wheel, stringing on ring by ring, or rather by joining a continuous string. They are then smoothed and painted. These pots are used from one end of the island to the other and are the most important reason for their travels at sea. They are brittle and are always used to boil *pandanus* bread, the biggest fitting to the form of the fruit, the smaller ones of the made bread.

(2) *Boats (canoes).*—The Northern Islands (Car Nicobar, Chowra, Bompoka and Teressa) have no trees of which they can make big boats that can cross the sea. On Little and Great Nicobar a great many boats are made. These are all brought up by the makers to the Nancowry Group or fetched by the Nancowry men. These canoes are generally used on the Nancowry Group. In the latter group the best big boats are made, these are exported to the northern islands. Pots are always brought in every voyage southwards of Chowra and north from Chowra to Car Nicobar. To effect this trade the dry season, November-April, is used. The weather is always uncertain in these islands, but the islanders utilise the calm intervals and the canoes come then crowded when fetching boats, but thinly manned when bringing back canoes that have been bought.

(3) *Celtis cloth.*—This cloth is really only the inner bark of the *Celtis vestimentaria* (*kamfo nener*). It is now only used largely on all the Southern Islands to provide skirts for the women, but it is still occasionally used in the Nancowry Group for skirts and bedding, although it is only a few years ago that it was a very valued article of commerce in the islands. The women of the northern islands use a fringe made of cocoanut leaves (*hinong*) and the *celtis* cloth has never been used there.

(4) *Quick-lime.*

(5) *Rattan.*—The thin rattan collected and split at Great and Little Nicobars is used to fasten their boats and make their houses and is therefore a necessity to the Nancowry Group and to all the Northern Islands, and goes in every canoe facing northwards. It is, however, also exported to Achin and the Straits in Malay vessels.

(6) *Cocoanut scrapers.*—To scrape cocoanut the stem of a rattan palm of Great and Little Nicobars is used.

Dress of Men.—The national dress for all the men on the Nicobar Islands is a strip of cotton cloth, 3 inches wide, which is passed round the loins; the scrotum is forced back; the cloth passes over it, concealing it, but leaving the pubes visible; the end passes out behind and is fastened, hanging down like a tail. The men of the Shom Pen tribe go quite naked.

Women's Clothing.—The women among the Great Nicobar Coast people wear a skirt of the *celtis* cloth made by the inland tribe. On the Nancowry Group they wear a skirt, about 1 foot 6 inches long, of blue cloth round the waist. On the Northern Islands they wear a belt of fringes made of palm leaves.

Luxuries.—*Tobacco.*—Luxuries in daily use the Nicobarese know not much of. They all smoke tobacco on the Southern Islands, and on the Nancowry Group they use China tobacco, which is all imported and smoked in the form of a cigarette, the covering being made of a dried palm leaf. On the Northern Islands leaf tobacco is used, and this is cultivated mainly on Teressa; small quantities of China tobacco are also bought from ships.

Lime, Betel-nut and Betel Leaf.—All the islanders chew betel leaves (*chavica*) in which they wrap a bit of unripe betel-nut (*areca*) and a pinch of quick-lime. The lime forms thin layers of limestone outside their teeth, which grow to an enormous size, disfiguring their mouths, being jet black with a gloss. The colouring matter is derived from the betel (*chavica*) leaf. The lime is used in greater quantity at the Nancowry Group than elsewhere. It is made there from certain dead shells very carefully and has grown into a regular industry. They are, however, slow at making it and the supply is scarce on the other islands. I have now, I think, mentioned all the articles that are a necessity to the Nicobarese, and it will be seen therefrom that they are in a way very rich, as nature has supplied them abundantly with nearly all their wants, which are few. All that is over and above their few wants from outside is to spare. I may here recapitulate what their wants are from outside.

Necessities for Trade.—(1). *Old Iron.*—This is used for their fish and pig spears and they get it from the numerous wrecks, or buy it cheaply from the traders.

(2). *Knives and hatchets.*—Nearly all the work they do is done by the help of the Burmese *dah*, a formidable weapon, and an instrument that will serve as an axe, a knife, a hammer, and in many other capacities. The Nicobarese are never without their *dah*, and for excellent *dahs* or swords which can be exchanged, they are willing to give any amount of nuts.

The number of men is estimated very highly at 2,750 on all the islands, and allowing one *dah* every third year, which is more than they use, and assuming the cost of one at 200 nuts, the annual expenditure for this commodity would certainly not exceed 183,200 —say 180,000.

(3). *Necessary cloth. Cloth needed for daily wear.*—The quantity is very small and may be estimated, if the population is again assumed at 5,500, and if it is also assumed that all the men use cloth as mentioned above for daily wear and that 1,000 women wear it, counting the children in the number, it would necessitate an importation of 180 pieces of cotton cloth costing, say, 180,000 nuts per annum. This is, however, very much above the number of nuts actually expended on daily wear in the islands.

(4). *Tobacco.*—This commodity is used freely and by women as well as men. The expenditure may be put at 1 bundle per head per mensem on the Southern Islands and the number of smokers at 600, and if every bundle costs 50 nuts, which is 10 more than they pay to the traders, the expenditure amounts to 360,000.

(5). *Rice.*—Rice, although not a necessity, is still beginning to be a valued commodity, and may be estimated at not less than 500 bags, or 250,000 nuts.

What the Nicobarese want to expend for their own liberal maintenance.—It will be seen that the trade supplies the Nicobarese with all that they really want for less than one million nuts, *viz.*:—

1. Old Iron	30,000	nuts.
2. Cutting instruments	180,000	„
3. Cloth	180,000	„
4. Tobacco	360,000	„
5. Rice	250,000	„
Total	1,000,000	„

This estimate is made very liberally.

The Surplus.—All that is above my liberal estimate of 10 million nuts for local consumption and 1 million nuts for purchase of necessaries is absolute surplus. It is greatly wasted, and it is the greatest difficulty for them to find anything useful that they can procure for it.

I shall now proceed to try to arrive at an approximate estimate of what this surplus amounts to.

I have taken November to October as that is a closed Nicobar year, namely, two monsoons.

Details of Surplus.—Nuts received by Government, November 1880 to October 1881, both included. [There is no sort of trade like this now.—Ed.]

Government Nuts.

	From Government plantations.	Bought.	Taken and paid for at a lower rate.	Total.
November 1880	2,769	23,460	...	26,229
December 1880	2,810	12,390	...	15,200
January 1881	2,748	9,460	22,500	34,708
February 1881	2,750	5,450	33,200	41,400
March 1881	3,090	7,280	29,980	40,350
April 1881	3,046	14,180	37,860	55,086
May 1881	3,100	14,120	36,100	53,320
June 1881	3,005	13,365	44,000	60,370
July 1881	2,988	25,363	36,100	64,451
August 1881	2,898	10,860	60,680	74,438
September 1881	2,509	13,880	35,000	51,389
October 1881	2,035	10,570	16,000	28,605
	32,748	160,378	351,420	545,546

Sale in trade.

27th October	1880	Barque Meera Hussain	Car Nicobar	300,000
			Nancowry	2,500
11th November	1880	„ Rattlesnake	Nancowry Group	145,000
29th „	1880	Schooner Active	„ in copra (dry state)	300,000
30th „	1880	„ Thain ghee	Teressa and Great Nicobar	100,000
1st December	1880	„ Penang Rever	Nancowry Group	300,000
7th „	1880	Sloop Gunju Rabon	Car Nicobar	60,000
9th „	1880	Cattoo Huree Pussa	Teressa nuts, 4,500 copra, 10,000	14,500
10th „	1880	Schooner Aung Chang Tha	Teressa and Car Nicobar	65,000
14th „	1880	Barque Canton Carpenter	Nancowry group	140,000
20th „	1880	Schooner Zulhing	Teressa and Car Nicobar	60,000
30th „	1880	„ Insee	Teressa, Katchall and Car Nicobar	50,000
27th January	1881	„ Merumbux	Teressa, Car Nicobar, Great Nicobar and Katchall.	300,000
12th March	1881	„ Duke	Nancowry Group	415,000
28th „	1881	Cattoo Oung Ban	Car Nicobar	60,000
5th April	1881	Tope Polka	Nancowry Group	30,000
8th „	1881	Schooner Colonel Browne	Teressa	80,000
13th „	1881	„ Aung Chang Tha	Nancowry Group, nuts, 70,000 copra, 30,000	100,000
6th May	1881	„ Rahamane	Car Nicobar	250,000
15th „	1881	Junk Sam-hop-ne	Great Nicobar, nuts 5,000 copra 1,000	6,000
7th July	1881	Barque Rungasawmy puravey	Car Nicobar	150,000
8th „	1881	Schooner Constance	Nancowry Group	45,000
12th „	1881	„ Maree	Car Nicobar	125,000
18th „	1881	Gunja Dolut Pershaud	Teressa and Car Nicobar	60,000
1st August	1881	Barque Fathul Rahmon	Nancowry Group	155,000
1st „	1881	„ Saffinathulla	Ditto	155,000
3rd „	1881	„ Pakialetchmi	Ditto	185,000
12th „	1881	„ Meera Hussain	Nancowry Group 190,000 Car Nicobar 50,000	240,000
24th „	1881	„ Lord Harris	Car Nicobar	300,000
29th „	1881	Gunja Huriprusaud	Nancowry Group	46,000
31st „	1881	Schooner Stree Venkatta Chellepaty	Car Nicobar	150,000
3rd September	1881	Brig Futtalore	Teressa and Great Nicobar	120,000
29th „	1881	Gunja Rambon	Teressa and Great Nicobar	60,000
9th October	1881	„ Hurripussa	Teressa	50,000
9th „	1881	„ Khattanpershaud	Teressa	50,000
9th „	1881	Sloop Dolet Pasa	Car Nicobar	60,000
9th „	1881	Gunja Pudarath	Teressa	50,000
15th „	1881	„ Rama Pershaud	Car Nicobar	50,000
22nd „	1881	Sloop Boolut Doluti	Teressa	40,000
27th „	1881	„ Narain Pershaud	Teressa and Great Nicobar	150,000
				4,989,000

During the twelve months under review Government received nuts	545,546
Traders bought	4,989,000
TOTAL	5,534,546

This estimate is not complete, for some nuts go every month away by the Mail Steamer [*i.e.*, in 1881, not now.—ED.].

Some vessels touch at Port Blair and not at Camorta, of which the record is not at my disposal; some vessels do not touch at all at any port. Two instances of this came to my notice in March 1881.

It is also incomplete because many ships give their cargo in green nuts, whereas they really take in dry nuts, and that reduces by one-tenth the space required for green nuts, so that I think I am making a low estimate when I say that 6 million nuts are yearly sold by the Nicobarese. If 1 million is deducted for the nuts that I have shown before as being purchased for their daily use, 5 million nuts remain which are pure surplus.

Surplus is 5 million nuts and is wasted. This amount is really wasted, for the Nicobarese do not at the present moment understand how to utilise this purchasing power towards making themselves more comfortable. To illustrate this by an instance, I append the following advances taken by the village of Olhae (Inuaka) on Camorta from the Settlement. The village consists of 13 houses and has for inhabitants—

Children	4
Women	20
Men	19
TOTAL	43

Village of Olhae (Inuaka) Camorta.

Date.	Advances taken. Quality of advance.	Quantity.	Representing nuts.
October 10	Common checks, red	66 pieces	13,200
	Madras cloth, blue	66 „	13,200
	Turkey cloth	2 „	2,400
	Cloth, long	2 „	2,000
	Tobacco, China	20 bundles	1,200
	Pocket handkerchief	20 dozens	7,600
„ 29	Rum	9 bottles	540
„ 29	Rice	52 pounds	250
November 6	Rum	2 botttles	150
„ 13	„	2 „	120
„ 21	Sugar	5 pounds	100
„ 25	Rice	124 „	500
		TOTAL	43,060

It will be seen that of these advances only the tobacco; rum, rice, and sugar are for necessities, representing 2,860 nuts; the remaining 40,200 nuts are for purchases that are perfectly useless to them. The whole of the cloth so purchased is carefully packed in boxes in the state it is received in, and beyond 2 or 3 yards of the turkey-red cloth none will ever be used for any domestic purpose. When a death feast next happens great quantities will be used to wrap the corpse, all the relatives will appear at the grave and tear whole pieces to shreds; and what is not sacrificed at the next death feast will, on other festive occasions, be got out and used to decorate the house with. Hundreds of pieces of cloth being arranged symmetrically around and all over the house, and the more a man can expose, the richer he is considered. The ultimate fate of it is that it will all be torn and buried with the owner of it. Visitors to the islands will generally see the islanders appear in coat and trousers or in Burmese or Malay clothes, but these are only put on for the occasion and are never worn when they are alone in their villages, and are carefully put by when the occasion for wearing them is over. The dress is generally begged from a ship and the clothes worn last them for many years. I occasionally see coats worn that I gave away 11 years ago.

THEIR PURCHASES.—Although the rage is all for cloth in the islands, still they will buy any thing within their power. The instance I have given represents the nuts to be supplied to the Government during the three months of my stay here. There are no ships here at present and if the Commissariat had 100,000 empty bottles of various shapes I fully believe the Nicobarese would buy them all, they would decorate with them, sacrifice them and they would ultimately disappear.

What has once become the property of a Nicobarese, nothing will induce him to part with; some of them are now beginning to imitate the natives of India and buy up rupees or dollars and make them into arm and leg bands. But the bulk of the purchases go to useless objects. I hope that in time they will learn to utilise their buying power and procure such things as planks or shingles and get more comfortable, durable and healthy houses; that would alone save them an enormous deal of work, as their frail houses represent a great amount of labour, but they need constant repairs and must, within ten years, certainly be renewed. They all admit that it would be a great blessing to have boats like those the ships have, as they perceive that they are safer and have greater carrying power than their own canoes, but they lack the power to combine and they could never agree for a whole village to buy a boat together. Their social life is split up into individuals; each must do what he can for himself and everything. Thus it comes that for the present there is no prospect of their utilising their buying power better.

EFFECTS OF LIQUOR TRADE BEING STOPPED.—One great change has happened of late in the prohibition of the ardent poisoned liquors that the ships were in the habit of bringing down. The climate is unhealthy and malarious, sickness abounds, death is a very common occurrence, drunkenness was fast decimating the people. The ship's people could, when they were drunk, make them buy anything at the trader's figures. In fact they would supply them liquor in great quantities, and the consequence was that I have in villages, especially at feasts, seen the most disgusting instances of debauched drunkenness. Now that this quickly consumed article has been stopped as a trade they have improved, and they may gradually learn to better themselves in the way of houses and learn to understand the value of money. There is, however, no prospect of that happening for some time to come.

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TENURE OF LAND AND PROPERTY.—I offer the following information with reference to the tenure of land and property and also of the difficulties in the way of a detailed survey of the islands. The only property that goes by inheritance are cocoanut trees and *pandanus* forest. The Nicobarese say that they sow *pandanus*, but I have never seen seedlings or any trace of planting in the *pandanus* forest. The *pandanus* is of no importance, as only the leaves would be of any value.

The cocoanuts are all planted, and whoever plants a tree is the owner of it and his heirs after him. The land itself is not claimed, but the trees. There is no objection to any one planting among another man's trees. On the death of a man his cocoanut trees are divided among his children and this is generally arranged amicably.

The family relations are, however, very mixed and difficult. The Nicobarese are complete communists, and amongst other institutions the marriage tie is not in our sense known. As soon as a woman is marriageable she allows some young man to live with her. The women mostly remain in their parents' or brother's house. If the couple have any children, they may go on living together and spend their life together lovingly and faithfully. If, however, issue fails, the girl soon takes up with another man, often a casual visitor or a trader. In this way some women are constantly changing their husbands and I know several women, who are not above 30 years of age, that have had 13 husbands; and some have married as often as 20 times. All their former husbands may be alive; some may belong to the same village and even live in the same house. The object of this constant change in marriage is, if possible, to get children.

The inhabitants of the Nancowry Group and of the Southern Islands are very sterile, and it is everything for them to get children, especially daughters. Whoever has a grown up daughter is sure, in his old age, to have a home; for the husbands go to the women's homes. It thus happens that a man dies, who possesses cocoanut trees in many places. He may have from his father inherited nuts in Camorta and Trinkat. He may have married on the west side of Nancowry first and planted some nuts, and had a son and a daughter there; he may then have married at Katchall, planted nuts there and have had a son there, and on his death his son and daughter of the first marriage arrange with the younger son for the division of the inheritance, and they each take a share of the *pandanus*, if the father owned any, and divide his nuts on Camorta, Trinkat, Nancowry, and Katchall. The father might have inherited his trees in different places, so that they may have their trees in seven or eight different places, a few in each. The imaginary case I have put is not exaggerated, and I meet cases of this sort daily. It will be seen that, by this desultory way of living, the young male population is very much on the move and are often for years away from their homes. The men and the women keep each possession of their own trees and marriage gives a man no claim on his wife's property. From this it will be seen that when a man contracts to deliver nuts it makes him go to many different places, sometimes far off to supply a few nuts.

I may here mention an instance that shows how difficult it would be to deal with the people without a very intimate knowledge of their relations. The nearest village to the Settlement is Hentoin. Looking at the number of houses and number of inhabitants, one would expect that the village would be able to supply a fair amount of nuts at Trinkat, 3 miles off, and the combined lot is very small. The other day while talking to a young man about the matter he said that he was quite willing to supply a whole ship's cargo of nuts, if I could supply the ship. His father was once married in Little Nicobar; while there he planted a great number of cocoanut trees on the little island of Meroe, near Little Nicobar. All these nuts were his by inheritance and he had only once been able to take them away, when a Malay ship went with him and took a whole cargo in. On enquiry I found from others that his statement was quite true.

Going back to the statement of nuts sold during the year I find that the 6 millions of nuts would be to distribute as follows—allowing for the ships that have called only at Port Blair—or not at all:—

	Number of nuts sold.	Number with which necessaries bought.	Remaining as surplus.
Car Nicobar, Teressa, Bompoka, Trinkat	2,820,000	385,400	2,434,600
Nancowry, Katchall, Camorta, Meroe	2,620,000	508,000	2,112,000
Pulo Milo, Little Nicobar, Kondul, Great Nicobar	560,000	106,600	453,400
TOTAL	6,000,000	1,000,000	5,000,000

APPENDIX J.

CAR NICOBAR. RETURN OF OCCUPIERS.

Village—Mus.

Chief—OFFANDI. Second Chief—DAVID JONES.

Occupiers.	Number of dependants.
1. Offandi	13
2. Peter Simple	13
3. Tomkoi	21
4. Tom Patterson	7
5. Kahokkachan	50
6. Honsai	35
7. Pop	16
8. Davidson	53
9. James Snook	31
10. Harango	6
11. Sinkin	9
12. Pomahuktre	12
13. Friend of England	17
14. Topoia	13
15. Hawat	8
16. Wuimama	32
17. Hahatla	20
18. Apanam	23
19. Macpherson	28
20. Takat	22
21. Sam Weller	15
22. Kukanamah	40
23. Ketore	11
24. Ibrahim	18
	512

Village—Kinmai.

Chief—YOUNG GWYN. Second Chief - STEVENSON.

Occupiers.	Number of dependants.
1. Young Gwyn	22
2. Stephenson	11
3. Hakokah	8
4. Keyeroh	7
5. Hasang	3
6. Tangmeholre	19
7. Chama Muh	8
8. Tatkuan	12
9. Hamentangiyi	5
10. Tasoh	12
11. Ta Mas	10
12. Kan Mi	11
13. Tanuchforbi	27
14. Kunta	12
15. Tharhowa	23
	190

Village—Lapati.

Chief—SWEET WILLIAM. Second Chief—CHON FREDERICK.

Occupiers.	Number of dependants.
1. Edwin	52
2. Lahti	32
3. Atsaichkah	15
4. Kutarah	68
5. Sweet William	24
6. Tasonyin	23
7. Hanganlala	6
8. Tahaorhi	15
9. Pomyih	36
10. Chongyinkut	40
11. Chekpah	9
12. Hangchamatnare	26
13. Keyengchuakre	18
14. Tumwuk	18
15. Tarhutasak	15
16. Kahta	15
Carried over	412

Brought forward	412
17. Kahyengyeh	31
18. Uretahnga	42
19. Resta	8
20. Nyampah	12
21. Rhenngaliang	35
22. Little Clara	21
23. Chon	21
24. Kinchanga	39
25. Tahae	40
26. Tinguich	27
27. Yaa Kua	19
28. Sumrong	20
	727

Village—Tapueming.

Chief—LAWI. Second Chief—KALUANG.

Occupiers.	Number of dependants.
1. Lawi	32
2. Menkut	19
3. Kunmulaya	9
4. Kaluang	14
5. Suap	13
6. Yengla	12
7. England	8
	107

Village—Chokchuachia.

Chief—SAM. Second Chief—YOUNG BROWN.

Occupiers.	Number of dependants.
1. Sam	14
2. Ponparok	17
3. Dingmal	19
4. Ranama	19
5. Takom or Brown	49
6. Chayati	20
7. Kahtumrap	6
	144

Village—Kenyuaka.

Chief—CORNEY GRAIN. Second Chief—JOSEPH.

Occupiers.	Number of dependants.
1. Corney Grain	17
2. Joseph or Subanyut	18
3. Tinyua	17
4. Mahlufam	8
5. Kahmit	28
6. Tumilumah	28
7. Sarhatakung	10
8. Hakolmiyi	5
9. Pohkaäti	2
	133

Village—Tamalu.

Chief—HIKKA. Second Chief—LINUKNIYI.

Occupiers.	Number of dependants.
1. Hikkahmah	16
2. Linukniyi	20
3. Tahkap	10
4. Pong	11
5. Kile	21
6. Otrum	14
7. Kalanga	9
8. Karawi	12
9. Tatkahmineang	11
10. Kapamre	12
11. Sagnya	8
12. Ngacharatachya	4
13. Talankar	11
14. Atwai	16
15. Subapnga	6
16. Kachingore	17
17. Kinsai	17
18.	7
	222

Village—Perka.

Chief—KANANA. Second Chief—KINGFISHER.

Occupiers.	Number of dependants.
1. Kangana	23
2. King Fisher	35
3. Taluk	3
4. Kutkuah	11
5 Kommitki	7
6. Ngakurtahoinj	3
7. Kokahli	20
8. Wetwi	7
9. Suam	15
10 Inmahnen	5
11. Eltanga	2
12. Winnainkta	1
13. Chini	5
14. Hangkurakah	12
15. Lachyensi	19
16. Kumrhwala	9
17. Cheschuletes	5
	182

Village—Malacca.

Chief SAIBU. Second Chief—RAMULLA.

Occupiers.	Number of dependants.
1. Saibu	20
2. Rhinangumah	14
3. Kihal	16
4. Apet	14
5. Atinwas	6
6. Nantla	5
7. Tom Jackson	10
8. Angsalonawn	9
9. Arap	5
10 Mahroi	13
11. Kinlowa	18
12. Asapore	6
	136

Village—Kokana.

Chief—SANELNGA. Second Chief—YIROKTA.

Occupiers.	Number of dependants.
1. Sanelnga	28
2 Watsuke	23
3. Ngamyok	17
4. Yirokta	28
	96

Village—Kemios.

Chief—SILAMA CHETTY. Second Chief—MAUNG KA.

Occupiers.	Number of dependants.
1. Silama Chetty	15
2. Kihngen	27
3. Sinoök	26
4. Talampah	32
5. Suruinj	17
6. Yinnge	35
7. Maungka	13
8. Hokiyinkah	30
	195

Village—Arong.

Chief—TOM DIXON. Second Chief—GOFAL.

Occupiers.	Number of dependants.
1. Tom Dixon	62
2. Tatrol	41
3. Tanayal	27
4. Hantuhainj	28
5. Kitang	17
6. Gofal	38
7. Kafanta	26
8. Sakuv Cholia	47
9. Malan	21
10. Wuharho	30
	331

Village—Sawi.

Chief—SAMPSON. Second Chief—CROW.

Occupiers.	Number of dependants.
1. Sampson	39
2. Atkanta	24
3. Hamoh	77
4 Talapeh	63
5. Hangaichkuh	46
6. Chuaktakacha	38
7. Kamunnga	23
	310

CHAPTER II.

DESCRIPTIVE.

I. Geography.—General Geography—Names of the Islands—Old European Names for the Islands—General Features of the Islands—Harbours and Anchorages—Rivers and Streams—Surveys.

II. Geology.—Geological Reports—Dr. Rink's Views—Dr. von Hochstetter's Views—Earthquakes—Special Points—Conchology—Marine and Land Fauna—Economic Zoology—The Forests—The Imported Flora.

III. Meteorology.—The Commercial Value of the Meteorology—Climate—Weather—Rainfall—General Statistics for Nancowry Harbour—for Car Nicobar.

IV. History.—Old Accounts—Origin of the Name—European Occupation—British Penal Settlement—British Colonisation.

I. Geography.

General Geography.—The general geography of the Nicobar Islands has been already discussed in the Andaman section of this Report, and it is not necessary to do more here than explain special features belonging to this Group.

The Nicobar Islands lie in the Bay of Bengal between Sumatra and the Andaman Islands. Geographically, they are situated between the 6th and 10th parallels of north latitude, and between 92° 40′ and 94° of east longitude. The extreme southern point is 91 geographical miles from Pulo Brasse off Achin Head in Sumatra, and the extreme northern point 75 miles from the Little Andaman. They consist of twelve inhabited and seven uninhabited islands running in a rough line from Sumatra to the Andamans.

The extreme length of the sea-space occupied by the Nicobars is 163 miles, and the extreme width is 36 miles.

Names of the Islands.—The geographical names of the Nicobars are nearly all foreign, and are not used by the inhabitants. They are as follow from north to south, the islands having an aggregate area of about 635 square miles. The islands starred are not inhabited :—

Geographical Name.	Native Name.	Area in square miles.
Car Nicobar	Pu	49·02
*Batti Malv	Et	0·80
Chowra	Tatat	2·80
*Tillanchong	Laok	6·50
Teressa	Taihlong	34·00
Bompoka	Poahat	3·80
Camorta	Nankauri	57·91
Trinkat	Laful	6·40
Nancowry	Nankauri	19·32
Katchall	Tehnyu	61·70
*Meroe	Miroe	0·20
*Trak	Fuya	0·10
*Treis	Taan	0·10
*Menchal	Menchal	0·50
Little Nicobar	Ong	57·50
Pulo Milo	Miloh	0·40
Great Nicobar	Loöng	333·20
Kondul	Lamongshe	0·50
*Cabra	Konwana	0·20

The Southern Group of islands are known to the Malays as Sambilong or the Nine Islands.

Old European Names for the Islands.—I have not been able to trace the modern geographical names of these islands to their sources, except in a few cases, and the old maps do not help much.

Nicobar turns up as a general name for the islands in maps of 1560, 1688, and 1710, but this name is separately traced out. Nicobar, and corruption Nicular means, however, on the maps the Great Nicobar (1595, 1642, 1710, 1720, 1764). It did so to Dampier in 1688.

Car Nicobar has a variety of names; some through misprints—

Carecusaya	1560 for Carenicaya?
Caremcubar	1595 for Carenicubar.
Carenicubar	1642.
Cara Nicobar	1710.
Cornalcabar	1720 for Cornaccabar?
Curnicubar, Carnicular and Carnioubas.	1720 all for Carnicubar.
Carnicobar	1764, 1785.

Chowra appears as Jara, 1764, 1785, and all the other names for it are corruptions of *sombrero*, from the remarkable umbrella-shaped hill to the south of it—

Dosombr	1595 for Dos Sombros?
Sombrero	1642, 1710, 1720.
Dos Sombreros	1686.
Sombrera	1720.

Hence the existing (Canal de Sombreiro) Sombrero Channel in these islands.

Teressa was always distinguished and shows its origin in the village of Tras, with which, no doubt, trading was done.

Rasa	1595, 1642.
Raya	1686 for Raza.
Rasa	1710.
Possa, Raza, and de Richo	1720 all for Rasa.
I. Roses	1764 for Rasa.
Terache	1764, 1785.

Bompoka appears as Pemboc, 1764, and Perboc, 1785 (misprint for Pemboc).

Camorta was called the Isle of Palms. Thus, Das Palmeiras, 1642; Des Palmas, 1720. But later by its native name Nicavari (=Nancowry) 1764, 1785.

Tillanchong is Talichan, 1764, 1785.

Trinkat is Sequinte in 1710.

Nancowry is Souri in 1764, 1785 (and in all reports up to 1800 and some time after).

Katchall is de Achens in 1710.

And Great Nicobar is Seneda for some reason in 1710.

General Features of the Islands.—There is considerable variety in the appearance of the several islands of the Nicobar groups. Thus, from north to south, Car Nicobar is a flat coral-covered island; Chowra is also flat, with one remarkable table-hill at the south end (343 feet); Teressa is a curved line of hills rising to 897 feet, and Bompoka is one hill (634 feet) said by some to be volcanic; Tillanchong is a long, narrow hill (1,058 feet); Camorta and Nancowry are both hilly (up to 735 feet); Trinkat is quite flat; Katchall is hilly (835 feet), but belongs to the Great and Little Nicobars in general form, differing much from the others of the Central Group; the Great and Little Nicobars are both mountainous, the peaks rising to 1,428 feet in the Little, and to 2,105 feet in the Great, Nicobar. Car Nicobar is thoroughly tropical in appearance, showing a continuous fringe of cocoanuts, but a high green grass is interspersed with forest growth on Chowra, Teressa, Bompoka, Camorta, and Nancowry, giving them a park-like and, in places, an English look. It is also found on Car Nicobar in the interior. Katchall, Great and Little Nicobar have from the sea something of the appearance of Sardinia from the Straits of Bonifacio, and are

covered with a tall, dense jungle. Rocky, though heavily wooded, Tillanchong is entirely unlike the rest.

The more prominent hills with names are on Great Nicobar, Mount Thuillier (2,105); on Little Nicobar, Mount Deoban (1,428), Princess Peak (1,353), Empress Peak (1,420); on Camorta, Mount Edgecumbe (251) near to and south of Dring Harbour, west coast of Camorta, so called from the likeness to the scenery of Plymouth.

The scenery is often fine and, in some places, of exceeding beauty, as in Galatea and Alexandra Rivers and in Nancowry Harbour.

Harbours and Anchorages.—There is one magnificent land-locked harbour formed by the islands of Camorta, Nancowry, and Trinkat, called Nancowry Harbour, and a small one between Pulo Milo and Little Nicobar. There are good anchorages off east, south and west of Kondul, in some seasons in Sawi Bay *in Car Nicobar, East Bay in Katchall and in Castle Bay in Tillanchong*: but the overgrown coral interferes with the usefulness of the otherwise large and land-locked Expedition Harbour, west coast of Camorta, Dring Harbour, west coast of the same island, Campbell Bay and Ganges Harbour east and north respectively of Great Nicobar, and Beresford Channel between Trinkat and Camorta. Galatea Bay and Laful Bay, south and east of Great Nicobar, are too open to be much better than roads, and the other usual points of anchorage are merely open roadsteads. The coasts are coral-bound and dangerous, but there are many points at which small craft could find convenient shelter.

The other usual anchorages are off Car Nicobar, Mus, north-east, and Kemios, south: off Chowra, Hiwah, east: off Teressa, Bengala, Kerawa, Kolarue, all west, Hinam, east: off Bompoka, Poahat, east: off Katchall, west, good for small boats: between Menchal and Little Nicobar, west; inside Megapod Island, Great Nicobar, east,—good for small boats: Tillanchong, Novara Bay.

Rivers and Streams.—The Nicobars generally are badly off for fresh surface water: on Car Nicobar there is hardly any, though water is easily obtained by digging. The only island with rivers is Great Nicobar, on which are considerable and beautiful streams: Galatea (Dak Kea), Alexandra (Dak Anaing) and Dagmar (Dak Tayal).

Surveys.—The whole of the Nicobars and outlying islands were surveyed topographically by the Indian Survey Department under Colonel G. Strahan in 1886-87, and a number of maps on the scale of 2 miles to the inch were produced, giving an accurate coast line. The longitude of the (former), Camorta Observatory in Nancowry Harbour, has been fixed at 93° 31′ 55·05″ east. The marine surveys of these islands date back to the days of Ritchie (1771) and Kyd (1790), and are still meagre and not satisfactory. The chart in use is that of the Austrian frigate *Novara* (1858) combined with the Danish Chart of 1846, with corrections up to 1889. There is also a large scale chart of Nancowry Harbour, which is that of Kyd in 1790 with additions up to 1869. There are beacons for running in at Mus and Sawi Bay in Car Nicobar, at Bengala in Teressa, and (now doubtful) buoys in the eastern entrance to Nancowry Harbour. A voyage round these coral-bound and sparsely-sounded coasts is one to be made with caution. The Eastern Extension Company's cable from Madras to Penang lies between the Central Group and Car Nicobar, the whole line across the Andaman Sea being, of course, charted.

II. Geology.

Geological Reports.—Considerable attention has been paid to the geology of the Nicobars, two properly qualified expeditions having been undertaken thither in the Danish corvette *Galathea* in 1846, and in the Austrian frigate *Novara* in 1858. Both expeditions have made elaborate reports.

Dr. Rink's Views.—It will be sufficient here to note that Dr. Rink of the *Galathea* expedition notices, that though the Islands form part of a submarine chain known for its volcanic activity, he found no trace of true volcanic rocks, but features were not wanting to indicate considerable upheavals in the most recent periods. The connection of the Islands with the principal chain is exhibited in the strike of the oldest deposits, from south-south-east to north-

north-west, *i.e.*, coincident with the line between Sumatra and the Little Andaman. The hilly islands consist partly of these stratified deposits, which occupied the level bottom of the sea before their appearance, and partly of plutonic rocks which pierced the former and came to the surface through the old upheaval. The age of the stratified rocks generally indicates that of the islands, which Dr. Rink takes to be tertiary. The undulating hilly land of the islands he considers to be due to an old alluvium upheaved by a movement subsequent to that which caused the principal upheaval of the islands. In addition to this there is a distinct new alluvium on the flat lands due to the disintegration of coral reefs, which still surround the islands as a circular flat.

Dr. von Hochstetter's Views.—Von Hochstetter, of the *Novara* expedition, classifies the most important formations, thus :—eruptive, serpentine and gabbro ; marine deposits,—probably later tertiary,—consisting of sandstones, slates, clay, marls and plastic clay, recent corals. He connects the whole group geologically with the great islands of the Asiatic Archipelago further south.

From Dr. von Hochstetter's observations the following instructive table has been drawn up as to the relation of geological formations to soil and vegetation and showing how the formations have affected the appearance of the islands :—

Geological character of the underlying rock.	Character of the soil.	Character of the forest vegetation.
1. Salt and brackish swamp, damp marine alluvium.	Uncultivable swamp . . .	Mangrove.
2. Coral conglomerate and sand, dry marine alluvium.	Fertile calcareous soil, carbonate and phosphate of lime.	Cocoanut.
3. As above, with dry fresh-water alluvium.	Fertile calcareous sandy soil .	Large trees.
4. Fresh-water swamp and damp alluvium.	Cultivable swamp . . .	Pandanus.
5. Plastic and magnesian clay, marls ; partially serpentine.	Unfertile clay ; silicates of alumina and magnesia.	Grassy, open land.
6. Sandstone, slate, gabbro, dry river alluvium.	Very fertile ; loose clay and sand, rich in alkalis and lime.	Jungle ; true primeval forest.

Earthquakes.—As the Nicobar Islands apparently lie directly in the local line of greatest weakness, severe earthquakes are to be expected and have occurred at least three times in the last 60 years. Earthquakes of great violence are recorded in 1847 (31st October to 5th December), 1881 with tidal wave (31st December), and milder shocks in 1899 (December). The tidal waves caused by the explosion of Krakatoa in the Straits of Sunda in August 1883 were severely felt.

Special Points.—The vexed questions of the presence of coal and tin in the Nicobars have so far received no decided scientific support. The white clay marls of Camorta and Nancowry have become famous, as being true polycistina-marls, like those of Barbadoes.

Conchology.—There has been considerable activity in the collection of both land and sea shells all over the Nicobars by members of the two expeditions above mentioned, officers of the Penal Settlement, scientific visitors, and some of the missionaries, but there does not appear to be anything of special note in the sea shells. The presence of *argonauta argo, scalaria preciosa,* and of a huge *tridacna,* measuring 3 feet and more, may, however, be noted. The land shells are of more interest, as supporting the geological evidence regarding the connections of the islands north and south.

Marine and Land Fauna.—The marine and land fauna of the Nicobars take generally the character of that of the Andamans, though while the Andamans fauna is closely allied to Arakan and Burma, the Nicobars displays more affini-

ties with Sumatra and Java. The land fauna, owing to greater ease in communications, has been better explored than the Andamans.

Economic Zoology.—The economic zoology of the Nicobars is also mainly that of the Andamans. Coral, trepang, cuttle-bones, sea-shells, oysters, pearls, pearl-oysters, turtle and tortoise-shell, edible birds'-nests are equally found in both group of islands. And in the Nicobars a somewhat inferior quality of bath sponge is obtainable.

The Forests.—Although the vegetation of the Nicobars has received much desultory attention from scientific observers, it has not been subjected to a systematic examination by the Indian Forest Department like that of the Andamans. In economic value the forests of the Nicobars are quite inferior to the Andaman forests, and so far as known the commercially valuable trees, besides the fruit trees such as the cocoanut (*cocos nucifera*), the betel-nut (*areca catechu*), the mellori (*pandanus leeram*), are a thatching-palm (*nipa fruticans*), and the timber trees *myristica irya, mimusops littoralis, hopea odorata, artocarpus lakoocha, calophyllum inophyllum, calophyllum spectabile, podocarpus neriifolia, artocarpus chaplasha.* Of these only the first would at the Andamans be classed as a first class timber, the last would be a third class timber and the rest second class. The minor forest products are limited to dammer (obtained from *dipterocarpus sp.*) and rattans. The palms of the Nicobars are exceedingly graceful, especially the beautiful *ptychoraphis augusta.* The large clumps of *casuarina equisetifolia* and great tree-ferns (*alsophila albo-setacea*) are also striking features of the landscape in places.

The Imported Flora.—In the old missionary records are frequently mentioned instances of the introduction of foreign economic plants. In this matter the people have been apt pupils indeed and nowadays a number of familiar Asiatic fruit-trees are carefully and successfully cultivated; pumelos (the largest variety of the orange family), lemons, limes, oranges, shaddocks, papayas, bael-fruit (wood-apple), custard apples, bullock's-hearts, tamarinds, jacks, and plantains: besides sugar-cane, yams, edible colocasia, pine-apples, capsicum, and so on. A diminutive orange, said to come from China and to have been introduced by the Moravian missionaries, is now acclimatised (and at the Andamans). It is quite possible also that with the missionaries came the peculiar zigzag garden fence of the Northern Islands. With the long commerce of the people a number of Indian weeds (*malvaceæ* and *compositæ*) have been introduced, *datura, solanum, flemmingia mallotus, mimosa,* and so on.

III. Meteorology.

Commercial Value of the Meteorology.—It has always been held to be of importance to maintain a meteorological station at the Nicobars for supplementing the information to be obtained from the Andamans as to the direction and intensity of cyclonic storms in the Bay of Bengal. A subsidiary station was therefore set up at Nancowry Harbour on the British assumption of possession in 1869 and properly maintained while the penal settlement lasted there till 1888, and after a fashion thereafter till 1897, when it was removed to Mus in Car Nicobar.

Climate.—The climate generally is that of the islands of similar latitude; very hot except when raining, damp, rain throughout the year, generally in sharp heavy showers, unwholesome for Europeans, in places dangerously subject to malaria.

Weather.—The weather is generally unsettled, especially in the south. The islanders are exposed to both monsoons with easterly and north-easterly gales from November to January, and south-westerly gales from May to September; smooth weather only from February to April and in October; occasionally visited by cyclones (recorded instances, May 1885, March 1892). The normal barometric readings (five years in Nancowry Harbour) vary between 29·960 and 29·797, being highest in January and lowestin June.

Rainfall.—The rainfall varies much from year to year as will be seen from the following table and diagram :—

Rainfall in inches annually at Nancowry, 1874 to 1888.

1873-74	94·24
1874	108·14
1875	99·97
1876	136·55
1877	108·55
1878	Not given.
1879	109·72
1880	101·96
1881	127·61
1882	143·24
1883	122·35
1884	109·62
1885	93·04
1886	143·91
1887	165·44
1888	128·29

General Statistics for Nancowry Harbour.—The chief meteorological statistics for the last five years of the Penal Settlement in Nancowry Harbour are : —

	1884	1885	1886	1887	1888
			TEMPERATURE.		
Mean highest in shade	May 91·3	April 91·6	April 91·9	July 86·5	April 91·2
Mean lowest in shade	Dec. 74·5	Dec. 73·3	Dec. 71·8	Feby. 72·2	Jany. 72·2
Highest in shade	May 92·2	May 95·4	Aug. 98·2	April 90·6	May 97·4
Lowest in shade	July 70·3	Septr. 71·0	Dec. 64·0	Mar. 66·4	Jany. 68·8
Dry bulb mean	83·3	84·4	84·0	82·7	83·9
Wet bulb mean	77·5	78·1	76·6	77·2	77·8
			RAINFALL.		
Most wet days in a month	May 21	July 23	Novr. 23	May 27	Septr. 22
Heaviest fall in a month	May 21·75	Dec. 17·90	Novr. 25·23	Novr. 20·41	Octr. 27·63
Total fall in year	106	91	128	133	123
Total wet days	148	157	170	222	148
			WIND.		
N. E.	April, Decr.	January	Jany. Feb. March.	Jany., Feby.	Jany., Feby., Mar., Novr., December.
E. S. E.	...	April	April	March	...
S. S. W.	...	...	May to Aug.	...	...
S. W.	May to Octr.	May to Oct.	Sept. Octr.	Apl. to Sept.	Apl. to Octr.
S. E.	...	November	November	...	...
E.	...	Feby., Mar., December.	December	Octr., Novr., Decr.	...
W. S. W.	November	...	...	...	...
			CLOUDS.		
Clouds usually are	P. K. *	K. & P. K. *	P. K. *	P. K. *	P. K. *

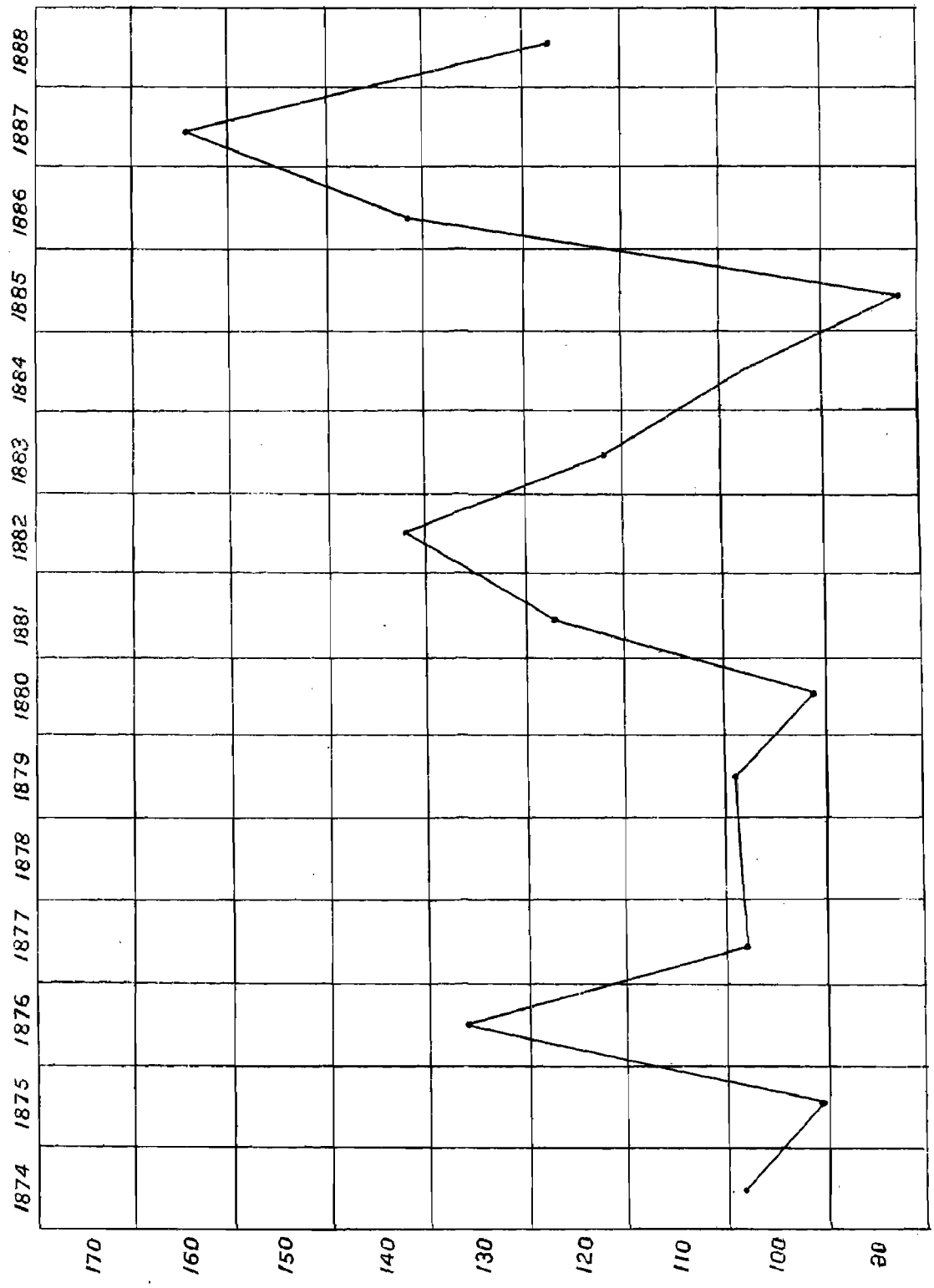
* P. K.=Pallio-Cumulus ; K.=Cumulus.

General Statistics for Car-Nicobar.—With these can be partially compared Meteorological Statistics for Car-Nicobar since the establishment of the station there.

	*1898	1899	1900	†1901
		TEMPERATURE.		
Mean highest in shade	Septr. 84·4	May 88·7	July 88·6	Apl. 91·6
Mean lowest in shade	„ 76·7	April 77·8	Feby. 77·6	Octr. 74·6
Highest in shade	„ 88·0	March 92·2	April 93·5	April 92·3
Lowest in shade	Novr. 70·7	Feby. 66·0	March 66·8	Jany. 71·6
Dry bulb mean	„ 79·3	„ 83·2	„ 83·8	„ 84·2
Wet bulb mean	„ 77·2	„ 73·6	„ 73·0	„ 74·0
		RAINFALL.		
Most wet days in a month	Octr. 18	June 26	May 20	Septr. 22
Heaviest fall in a month	Septr. 11·38	„ 20·96	„ 15·79	„ 19·77
Total fall in year	„ 44	„ 104	„ 106	„ 78·
Total wet days	„ 51	„ 178	„ 131	„ 99·

* The observations in 1898 are only given from the 1st September to 31st December 1898.
† In 1901 the observations are only up to 31st October 1901.

DIAGRAM OF ANNUAL RAINFALL IN INCHES AT NANCOWRY 1874 TO 1888



	*1898	1899	1900	†1901
		WIND.		
N. E.	December	Jany. Feby.	Jany., Feby., March.	Jany., Feby., May.
N. N. E.	November	March, Apl.	April, May	March, Apl.
S. E.	„	September	Septr., Octr.	Aug., Sept.
S. S. E.	„	May, June.	August	June, July.
S. W.	Septr., Octr.	Aug., Octr.	...	October.
S. S. W.	„	July	June, July	May.
E. S. E.	„	Novr., Decr.	Novr., Decr.	...
		CLOUDS.		
Clouds usually are	P. K.	P. K.	K. & P. K	P. K.

P. K. = Pallio-Cumulus ; K. = Cumulus.

* The observations in 1898 are only given from the 1st September to 31st December 1898.
† In 1901 the observations are only up to 31st October 1901.

IV. HISTORY.

Old Accounts—Origin of the Name.—The situation of the Nicobars along the line of a very ancient trade has caused them to be reported by traders and sea-farers through all historical times. Gerini has fixed on Maniola for Car-Nicobar and Agathodaimonos for Great Nicobar as the right ascription of Ptolemy's island names for this region. This ascription agrees generally with the mediæval editions of Ptolemy. Yule's guess that Ptolemy's Barussæ is the Nicobars is corrected by Gerini's statement that it refers to Nias. In the 1490 edition of Ptolemy the Satyrorum Insulæ, placed to the south-east of the Malay Peninsula, where the Anamba Islands east of Singapore, also on the line of the old route to China, really are, have opposite them the remark :— *qui has inhabitant caudas habere dicuntur*— no doubt in confusion with the Nicobars. They are without doubt the Lankhabalus of the *Arab Relations* (851 A.D.), which term may be safely taken as a misapprehension or mistranscription of some form of Nicobar (through Nakkavar, Nankhabar), thus affording the earliest reference to the modern term. But there is an earlier mention of them by I-Tsing, the Chinese Buddhist monk, in his travels, 672 A.D., under the name of the Land of the Naked People (Lo-jen-kuo) and this seems to have been the recognised name for them in China at that time. "Land of the Naked" translates Nakkavaram, the name by which the islands appear in the great Tanjore inscription of 1050. This name reappears in Marco Polo's Necuveran 1292, in Rashiduddin's Nakwaram 1300, and in Friar Odoric's Nicoveran 1322, which are the lineal ancestors of the 15th and 16th Century Portuguese Nacabar and Nicubar and the modern Nicobar. The name has been Nicobar since at least 1560. The fanciful story of the tails is repeated by the Swede Kjoeping as late as 1647.

European Occupation.—In the 17th Century at least, and probably much earlier, as Haensel speaks of *pater*=sorcerer and Pere Barbe of *deos* and *reos*= God as survivals of Portuguese missionaries, the Nicobars began to attract the attention of a variety of missionaries. As early as 1688 Dampier mentions that two (probably Jesuit) "fryers" had previously been there "to convert the Indians." Next we have the letters (in *Lettres Edifiantes*) of the French Jesuits, Faure and Taillandier, in 1711. And then in 1756 the Danes took possession of the islands to colonise, the previous possession being a shadowy French one, but employed the wrong class of men sent by the Danish East India Company. The colony, affiliated to Tranquebar, had perished miserably by 1759. The Danes then in 1759 invited the Moraivan Brethren to try their hands at conversion and colonisation, and thus in due time commenced the Moravian (Herrnhuter) Mission which lasted from 1768 to 1787. It did not flourish and the Danish East India Company losing heart, withdrew in 1773 and left the missionaries to a miserable fate. In 1778, by persuasion of an adventurous Dutchman, William Bolts, the Austrians appeared, but their attempt failed in three years. This offended the Danes and from 1784 till 1807 they kept up a truly wretched little guard in Nancowry Harbour. In 1790 and 1804 fresh attempts by isolated Moravian missionaries were made. From 1807 to 1814 the islands were in English possession during the Napoleonic wars and were then handed back by treaty to the Danes. During this time an Italian Jesuit arrived from Rangoon and soon

returned. In 1831 the Danish pastor Rosen from Tranquebar again tried to colonise, but failed for want of support and left in 1834, and by 1837 his colony had disappeared, the Danes officially giving up their rights in the place. In 1835 French Jesuits arrived in Car-Nicobar (where the Order claim to have succeeded 200 years previously) and remained on in great privation in Teressa, Chowra and elsewhere till 1846, when they too disappeared. In 1845 the Danes sent Busch in an English ship from Calcutta to resume possession, who left a good journal behind him, and in 1846 the scientific expedition in the *Galathea* with a new and unhappy settlement scheme. In 1848 they formally relinquished sovereignty and finally removed all remains of their settlement. In 1858 the Austrians again arrived scientifically in the *Novara* with a scheme for settlement which came to nothing. In 1867 Franz Maurer, an officer, strongly advised the Prussian Government to take up the islands, but in 1869 the British Government, after an amicable conversation with the Danish Government, took formal possession, and established in Nancowry Harbour, under that at the Andamans, a Penal Settlement which was withdrawn in 1888. In 1886, the Austrian corvette *Aurora* visited Nancowry and produced a *Report* and also a series of well-illustrated articles by its surgeon, Dr. W. Svoboda. At present there are maintained native agencies at Nancowry Harbour and on Car-Nicobar, both of which places are gazetted ports. At Car-Nicobar is a Church of England mission station under a native Indian catechist attached to the Diocese of Rangoon ; the only one that has not led a miserable existence. The islands since 1871 have been included in the Chief Commissionership of the Andaman and Nicobar Islands.

The long story of the European attempts to colonise and evangelise such a place as the Nicobars is a record of the extreme of useless suffering that merely well-intentioned enthusiasm and heroism can inflict, if they be not combined with practical knowledge and a proper equipment. Nevertheless, the various missions have left behind them valuable records of all kinds about the country and its people : especially those of Haensel (1779-1787, but written in 1812), Rosen (1831-1834), Chopard (1844), Barbe (1846). Scattered English accounts of the islands are also to be found in many books of travel almost continuously from the 16th Century onwards.

British Penal Settlement.—Despite the nominal occupation of the country by Europeans for so long, the inhabitants, even of Nancowry Harbour, have been systematic pirates, and there is a very long list of authentic cases in which traders and others of all nationalities have been murdered, wrecked and plundered by them even to quite recent times. The immediate object of the British occupation was to put a final stop to this. The nineteen years of the British Penal Settlement succeeded effectually and there is now no fear of a recrudescence.

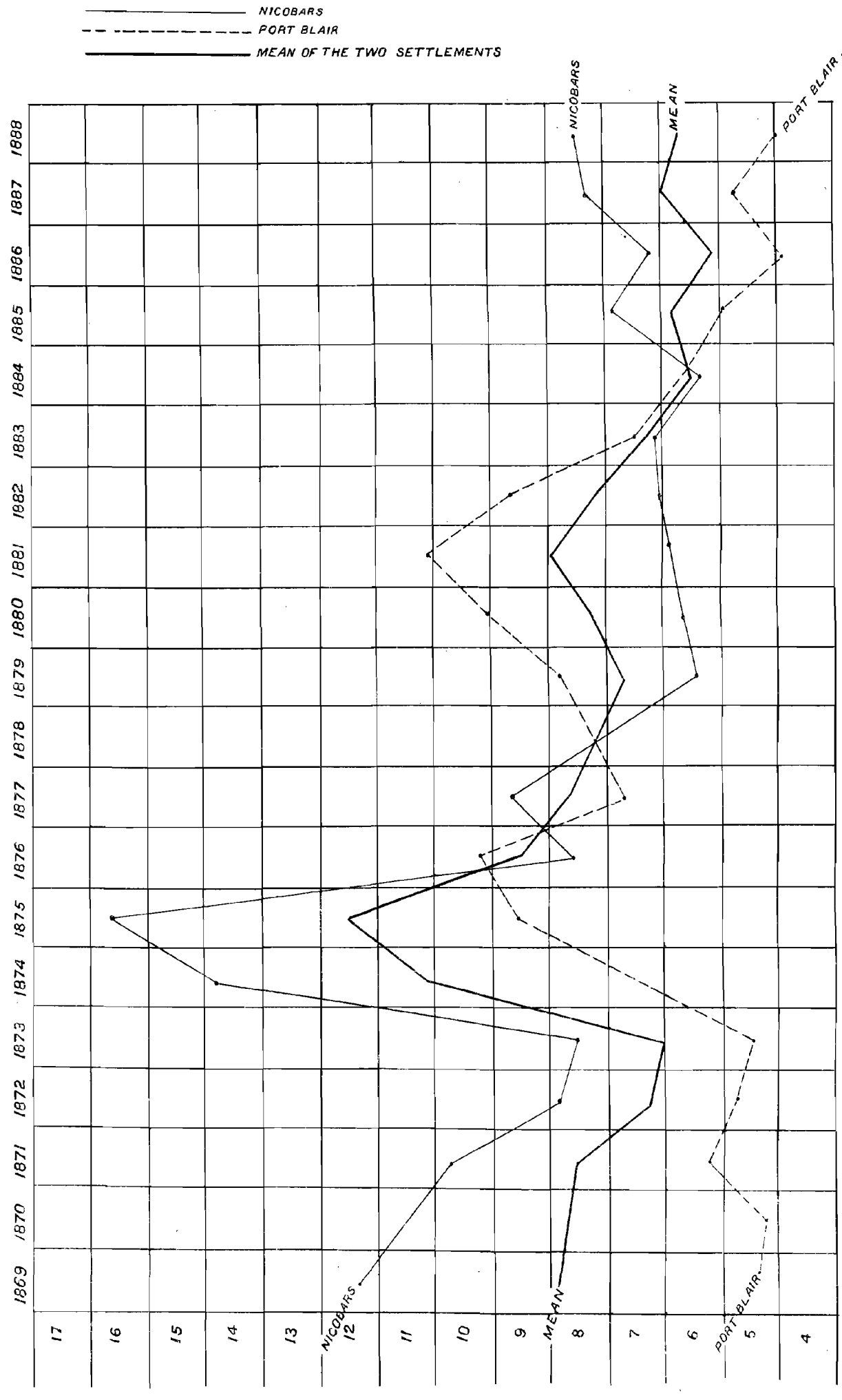
Complaints of piracy and murder of crews made in the records left behind by missionaries and seamen occur up to 1848, and in 1852 there commenced formal official complaints and correspondence on the subject, which continued at intervals, until in 1867 the question already mooted of annexation of the islands to stop piracy, some cases of which had been especially atrocious, was formally taken up, and in 1869 they were annexed to the British Crown and attached to the Andamans for administration and the establishment of a Penal Settlement.

The Penal Settlement in Nancowry Harbour consisted on the average of about 350 persons : 2 European and 2 other officers ; garrison, 58 ; police, 22 ; other free residents, 35 ; convicts, 235. They were employed on public works similar to those of the Andamans. The health was never good but sickness was kept within limits by constant transfer to the Andamans. Individual health, however, steadily increased with length of time and there is no doubt that in time sanitary skill and effort would have made the sick rate approach without special efforts that of the Andamans. The first year of residence was always the most sickly, partial acclimatisation being quickly acquired. Some officers stayed two to three years. Mr. E. H. Man was in actual residence on and off six and a half years. Some of the free people remained on several years : convicts usually three, and sometimes voluntarily from five to fifteen without change.

As a matter of fact, as the following table and diagram will show, with the precautions taken, the sick rate at the Nicobar Penal Settlement did not compare unfavourably with that at the Andamans.

COMPARATIVE SICK RATE PER CENT OF THF NICOBAR AND

PORT BLAIR SETTLEMENTS 1869-1888



Statement showing the sick rate of the Settlements at Port Blair and Nicobars from 1869 to 1888, inclusive, i.e., *for the 19 years that the Nicobar Settlement lasted.*

	Port Blair. Rate per cent.	Nicobars. Rate per cent.
1869	5·45	12·31
1870	5·34	...
1871	6·36	10·87
1872	5·91	8·98
1873	5·53	8·66
1874	7·60	14·89
1875	9·62	16·68
1876	10·35	8·66
1877	7·71	9·76
1878	Not recorded.	Not recorded.
1879	8·92	6·66
1880	10·00	6·83
1881	11·09	6·98
1882	9·77	7·01
1883	7·42	7·08
1884	6·72	6·48
1885	6·00	7·95
1886	4·99	7·23
1887	5·81	8·34
1888	5·00	8·55

The story of the Settlement was well told by Mr. E. H. Man in a final Report on its being broken up in 1888, and this will be found in Appendix A.

British Colonisation.—Like all the other Governments who had had an interest in the islands, the British tried a colony, Chinese, in 1884, which failed. But the attempt drew from the most experienced officer there, Mr. Man, the following advice of value, considering the perennial interest in these islands betrayed by European speculators and would be colonisers :—

"To colonise the Nicobars employ Chinese; send them to Great Nicobar: employ agriculturists who are not opium users : maintain quick and frequent communication with the Straits Settlements : assist the colonists in transporting their families : provide them with ready means of procuring food, clothing, medicines, tools and implements."

A large capital and much perseverance would always be necessary for exploiting the Nicobars with any hope of success.

APPENDIX A.

Extracts from Mr. E. H. Man's Report on the Penal Settlement in Nancowry Harbour.

The following ably written final report on the penal settlement at the Nicobar Islands by Mr. E. H. Man will be read with interest :—

The Government of India having determined to discontinue the maintenance of the penal settlement at the Nicobar Islands, orders were received, in July 1888, to take early measures for the transfer of the entire establishment and live stock, and the dismantling of all public buildings at Nancowry, with the view to their shipment to Port Blair.

2. These orders were duly carried into effect by means of the ordinary monthly trips of the contract mail steamer, and the last consignment was shipped on the 21st December, when, as a temporary measure, a Chinese interpreter in Government employ was left behind with authority to register ships' arrivals and departures, grant permits to trade and port clearances, and to hoist the British flag daily at the old station flag-staff. A few free cocoanut-traders, who had been resident for some years at the station, were at the same time permitted to remain there, and arrangements made for affording them all necessary assistance on the occasions of our periodical visits in the Government steamer from Port Blair.

3. The important step thus taken in seemingly abandoning our position at the Nicobars in no way, however, implied a desire or intention on the part of the Government to forfeit or impair its sovereignty by relinquishing any of the rights or responsibilities which it had incurred by its annexation of the islands twenty years ago. The primary objects which had led to the establishment of the Government colony in the centre of the group immediately after the annexation were held to have been at length fully attained, and, as it was at the same time clearly shown that, owing to the exceptional circumstances and conditions of the colony in incurring continued expenditure, no adequate return, even prospective, was possible, there remained neither inducement nor justification for maintaining an establishment any longer in such a remote and malarious locality.

4. Under the above circumstances this is considered a good opportunity to place on record a brief history of the settlement, whose period of existence corresponded somewhat singularly with that of the Moravian Mission in the same harbour a century ago; both were maintained for nineteen years, the latter from 1768 to 1787 and the former from 1869 to 1888.

5. For upwards of a century before the islands were added to the possessions of British India they had been regarded as belonging to the Danish Crown, which had exercised some sort of sovereignty over them. The endeavours made by the Danes to colonise the group were, however, mainly of a missionary character. The chief attempts made were by 25 Moravian brethren during the period above mentioned and by Paster Rosen between 1831-37. The ill-success which attended these efforts was attributable to many causes, the chief being their lack of sufficient means and often of the barest necessaries of life and their ignorance, not only of the prophylactics discovered since their day, but also of the most elementary rules of hygiene, as evidenced in the case of the Moravians by the wretched site selected by them for occupation, especially in a locality so notorious for malaria, and by their mode of living as described by the only one of their number, who survived to tell the tale of their sufferings and fruitless self-sacrifice.

6. It is scarcely surprising if the Nicobarese saw nothing in these ill-conducted missions to their islands to lead them to form a high estimate of the intelligence, power and resources of Western races; and this may, to some extent, explain the temerity many of these timid islanders are shown to have displayed in certain encounters with Europeans not long after the departure of Pastor Rosen's mission in 1837, which, in spite of the subsequent brief visit of the Danish corvette *Galathea* (1845-46), may be regarded as the date of the virtual abandonment by the Danes of their weak hold on the islands.

7. During the subsequent period of some thirty years (1837 to 1869) that the Nicobars were left as it were derelict, the natives of the Central, and less frequently of the Southern, Group committed numerous murderous outrages on the crews of vessels visiting their islands, ostensibly for trading purposes, the majority under the British flag. With our present knowledge of the Nicobarese and of some of those who have been in the habit of trading with them, there can be no doubt that the former must frequently have received considerable provocation from the latter. During the period referred to some 26 vessels are believed to have been scuttled by the natives.

8. In consequence of the impunity with which these crimes were committed they at length (in 1866) culminated in a bold attack on a brig (the *Futteh Islam*) at Great Nicobar, when 21 of the crew are believed to have been massacred, the survivors (3 in number) escaping with the vessel to Penang.

9. The action then taken by the Indian Government resulted, with the consent of the Danish Crown, in the islands being formally annexed to British India, and, for purposes of administration, they were at once placed in charge of the Superintendent of the Andaman Islands. While thus providing the most effectual means for suppressing the piratical tendencies of the inhabitants and affording protection to trading vessels visiting the islands, it was also left to be advantageous in serving to avoid the risk of such inconvenience as would be caused

by the possible establishment of a rival foreign naval station in such proximity to our settlement in the Indian seas.

10. The British annexation dates from 16th April 1869, since which a settlement has been established at Camorta and maintained on the northern side of Nancowry Harbour, opposite the site of the old Moravian Mission. The selection of this site was chiefly determined by the fact that the majority of the outrages above referred to had occurred within a small radius of the harbour, which, moreover, was well known to afford a commanding position and an excellent and commodious haven at all seasons of the year. The only drawback was the *malaria*, and this, it was hoped, might in time be removed by dealing with its causes after the same methods as had been successfully employed under like circumstances at Port Blair.

11. Although the site selected for occupation was on the northern side of the harbour, and therefore on Camorta Island, the new settlement was, by Home Department Resolution No. 2016, dated 25th April 1871, directed to be called after the better known island (Nancowry) facing it, which had, moreover, given its name to the harbour formed by the two islands.

12. A glance at the map of the three islands of Camorta, Nancowry, and Trinkat shows that the settlement was planted in the south-east corner of the first-named island, and that it embraced an area of about 500 acres.

13. Among the advantages presented by the site over any other in or near the harbour, and which, therefore, led to its selection, were that—(*a*) it was well raised, exposed to every breeze, there being no higher land within a considerable radius, and commanded both entrances to the harbour; (*b*) the greater portion of the site was under grass, and therefore very little clearing of jungle and undergrowth had to be undertaken before the necessary number of buildings could be erected; and (*c*) extensive grass heaths, suitable for grazing large herds of cattle, such as it was desired to establish, stretched for many miles northwards; while the drawbacks and disadvantages were not so immediately apparent, but soon proved to be (1) the extensive foreshore of pestiferous black mud with, here and there, exposed coral reefs, which skirted the three sides of the small promontory on which the settlement was planted; (2) the existence of a large fetid swamp, measuring some 40 acres on the north-east border of the station, and a few small swamps and *jhils* in other portions of the same area; and (3) the poverty of the soil, consisting mainly of polycistina clay, and the difficulty consequently found not only in cultivating it successfully or utilising it in any other way, such as in brick, tile or pot-making, but also in draining it. The two first of these drawbacks would, however, it was thought, be ere long successfully overcome.

14. The services of the hulk *Blenheim*, a well-known East Indiaman, which was anchored in the harbour for the first five years (*viz.*, till April 1874) proved useful to the pioneers of the settlement both in affording accommodation while the buildings were being erected, and as a sanitarium to those subsequently requiring a change from the shore.

15. The average strength at which the convict gang was maintained varied during the nineteen years from 172 to 308 men, the mean average being about 235. The number with which the colony was started was 262 convicts.

The protective force, consisting of Madras sepoys averaging between 50·65, and police 15·30, usually aggregated about 80 men, while the free residents, exclusive of the crew of the station steamer, which was first granted in February 1884, consisting of Government officials, employés, cocoanut-traders and, in late years, children of free and convict settlers, ranged between 20 to 50. The total number of residents (free and convict) rarely, therefore, exceeded 400, and was in some years so low as 300.

16. The officer in charge was one of the Assistant or Extra Assistant Superintendents on the Port Blair Establishment; when available, a European officer was detailed from his regiment to the command of the Madras Infantry detachment, and a medical subordinate (an apothecary or hospital assistant) was in charge of the hospitals.

17. The experiences of the first few years proved most trying to the pioneers of the infant colony, as evidenced by the high sick-rate among all classes, notwithstanding the adoption of many precautionary measures. This state of things was almost entirely due to the malaria for which the harbour has, from remote times, been notorious. It, therefore, soon became evident that, until some marked improvement occurred in the sanitary condition of the locality, it would be necessary to avail ourselves largely of the facilities afforded by the visits of the mail steamer, which in the first few years communicated once every six weeks, and subsequently once every four weeks, to effect reliefs at short intervals of all free residents and to transfer to Port Blair all cases of convict patients requiring change of air for their recovery.

18. In the case of the free establishment a residence of, at one time, three months and, at another time, of six months usually qualified for a relief, but, in some instances, the stay was voluntarily prolonged to periods of from one to four or more years. In the case of convicts, except when recommended for a change by the medical officer, they were, during a great portion of the period under review, required to pass about three years before they became eligible for transfer. This was not so great a hardship as it might otherwise appear, for further experience had proved that the first year of residence was usually the most trying, and that, owing to this circumstance, more work could be accomplished by those who had thus, in a measure, become acclimatised than by new arrivals. The practice, therefore, proved beneficial in enabling greater progress to be made.

19. Indeed, it often occurred that on becoming eligible for transfer to Port Blair, some of the convicts would prefer to remain at the Nicobars, so that it was found in February 1888 that of the 293 prisoners then at Nancowry, 88 had passed more than three years, and of that number 20 had been there from five to fifteen years without a change.

20. Although the facility of transferring the most sickly cases to Port Blair for change and treatment, and obtaining selected men in their place, was freely availed of, the hospital returns were, for most years, very high, and if the deaths and sick-rate at the Andamans of those recently transferred from the Nicobars had been also taken into account, the statistics would have proclaimed more clearly than they did the actual amount of mischief caused by the malarious climate.

21. Although, in spite of the disastrous experiences of the Moravian Missionaries a hundred years ago, the Nicobar fever can probably not be regarded as of so deadly a character as that of the pestilential Niger, it is curious to note that our experience of the former corresponded in one respect with that recorded of the latter, *viz.*, that "the fever usually sets in 16 days after exposure to the malaria, and that one attack, instead of acclimatising the patient, seems to render him all the more liable to a second."

22. That a decided improvement had taken place in the sanitary condition of the settlement during the last few years there can be no doubt, and that it could have been further improved and the site itself rendered fairly healthy by completing the reclamations of the swamps, *jhils*, and foreshore, and removing all exposed coral reefs within a reasonable radius of the station, seems equally certain; but in order to accomplish such a task, more labour than was available at Camorta would have had to be freely bestowed for two or more years, during which time a high percentage of sick would have had to be counted on.

23. Works.—The principal works on which the convicts were employed from first to last were as follows:—

(*a*) The construction of buildings, tanks, and wells (as per margin), metalled roads, drains (brick, surface and sub-surface), sea-walls, and a jetty (500 feet long).

5 barracks } with out-houses.
4 bungalows }
7 smaller quarters and out-houses.
1 Commissariat godown.
1 Magazine.
12 brick wells.
1 „ tank.
2 tanks.
Numerous cattle and work-sheds, etc.

The two last-named works proved very beneficial in reclaiming a large portion of the unhealthy area occupied by the foreshore, whereby, among other advantages, a site for numerous huts required for the accommodation of free cocoanut-traders was provided.

As regards material, in the absence of stone suitable for building purposes *in situ*, much use was made of the fine blocks of coral which were so easily obtainable. It was found easy to shape these by means of old blunt axes in slabs and blocks of suitable size. That they served our purpose very satisfactorily was evident from the substantial character of the work in the reservoir, wells, sea-walling and jetty. As the insanitary effects of exposed live coral are well known, the quarrying of the adjacent reefs and the utilization of the coral in the above manner thus served a double purpose. The same material further enabled us to obtain, by burning, as much good lime as we needed. For thatching purposes the lalang grass was found admirably adapted; it is of this material that the excellent roofs of the Nicobarese huts in the Northern Islands are invariably made. Scantling, planking, etc., was obtained from the local sawpit station in Octavia Bay, while posts, bamboos, and cane were of course always readily procurable from the adjacent jungles.

(*b*) The removal of jungle, the extirpation of lalang grass and planting of good grass-seed together with a large number of trees (neem, guango, casuarina, shisham, mahogany, etc.,) calculated to benefit the place both in a sanitary sense and otherwise; the cultivation of vegetables and fruits and experimental planting of cotton, tobacco, coffee, etc., and the reclamation or draining of such areas of swamp land as were either in proximity to dwellings or were so situated as to exert a baneful influence on the health of the station.

With regard to these the work of supplanting the lalang grass with superior imported species proved very difficult and can in fact be said to have been only partially accomplished; this is due to the extraordinary vitality of this grass, its tenacity, and the depth to which its roots penetrate the soil. It is more than probable that in the absence of any further restraints to its growth and spread, it will before many years re-assert its supremacy over the whole area. With reference to reclamations of swamps, the important work of bunding the large wide-mouthed swamp, referred to in the foregoing (para. 13) as on the north-east border of the station, was attempted with all available labour for two and a quarter years (January 1874 to March 1876). Great hopes were, with good reason, entertained that a decided improvement in the sanitary condition of the settlement would ensue on the successful completion of this work, but before it was half finished, it was ordered to be discontinued and the bunded portion to be cut through so as to re-admit the sea as before; the grounds for this decision being that (1) the position of the sluice-gate fixed by the Public Works Department was faulty; (2) labour was scarce and more could not be afforded from Port Blair; (3) much sickness was occurring among the men engaged on the work; and (4) the reclamation might prove of questionable utility. From experience previously gained at Port Blair it was known that while such work was in progress the rate of sickness was certain to be high, and had the work been persevered in and the reclaimed area well drained and planted with cocoanut-trees, there can be no doubt that results

similar to those witnessed at Aberdeen, Phœnix Bay and other swamps at Port Blair, formerly notoriously unhealthy, would have been attained.

(*c*) The formation of a cattle farm with the object of supplementing the outturn of draught and slaughter animals from the herds at the Andamans for the requirements of Port Blair, thereby eventually rendering that settlement independent of supplies of cattle from India.

Transfer of young animals for the above purpose commenced in October 1885, from which date 227 head were supplied to Port Blair (as per margin), while the entire herd at the time of the abandonment of the settlement comprised—

1885-86	67
1886-87	120
1887-88	42

Bulls	11
Cows	313
Bull-calves	324
Cow-calves	292
Bullocks	24
Buffalo-bulls	2
„ cows	28
„ calves (bull)	24
„ „ (cow)	15
TOTAL	1,033

the above being exclusive of 210 head of cattle owned by self-supporter convicts.

(*d*) The manufacture or sale of the following for consumption at Port Blair or for local use :—

	R
Cocoanut oil (about 720,000 lbs.)	1,20,000
Curds, milk and butter	28,500
Lime	20,000
Bricks	2,500

also procuring and preparing such quantities of jungle material, coral blocks, etc., as were required for local works.

(*e*) Girdling a few thousand timber trees (chiefly mimusops, albizzia, mangifrean and hydrocarpus species), and maintaining a saw-pit station for the supply of planking, scantling, etc., for works in progress and for sale.

24. WATER-SUPPLY.—From the number of wells and tanks mentioned in the foregoing as provided for the wants of the station, it will be rightly assumed that the supply of water was abundant during the rains and adequate during the dry months. As its quality was not above suspicion, the precaution was taken to boil and filter all that was intended for drinking purposes. The large quantity of water stored in the reservoir and wells near the jetty cannot fail to prove for many years to come a great convenience to vessels requiring a supply while trading there or in passing through the harbour. The average annual rainfall, as ascertained from the registers of fifteen consecutive years (1873 to 1887), was found to amount to 112·23 inches.

25. CHARACTER OF THE SOIL AND CULTIVATION.—The result of the experience gained by us as regards the capabilities of the soil for purposes of cultivation may be briefly stated to be as follows :—That only in such portions of the undulating grass heaths as lie in deep valleys and ravines could cultivation be carried on for more than one or at most two seasons without free application of manure, while on the high grass lands, there being only a thin layer of black mould covering the Polycistina clay, any attempt to remove the grass in order to prepare the soil for cultivation suffices to diminish the small amount of fertility in land so unfavourably situated by exposing the topmost layer to the effects of the heavy rains of these latitudes, which of course speedily cause it to be washed down the nearest slopes. As regards the jungle land, our experience corresponds with that gained respecting similar land at Port Blair, and there can be no doubt of the success which would reward intelligent agriculturists to whom a tract of such land was allotted. Besides of course raising ordinary Indian vegetables and fruits for local consumption, experiments were made in cultivating American *cotton* and *tobacco*. Between 1870 and 1873 about 20 acres were planted with the former; although there was at first a rich promise of success, the staple produced being most favourably reported on, both as regards quality and quantity, various circumstances combined to disappoint the hopes that had been raised. The drought of the dry months proved as injurious as the heavy rains and violent squalls of the South-West Monsoon, while additional loss was occasioned by the ravages of a red beetle, which was apparently introduced with the seed received from America. In consequence of this, though the soil seemed peculiarly favourable for the cultivation of this valuable plant, the experiment had to be reluctantly abandoned. The *tobacco* experiments were conducted on a smaller scale and over a like brief period. They sufficed to show that tobacco of good quality could be raised, although, in consequence of indifferent curing, the value of what was produced was small.

Experiments with *coffee* seed likewise showed that this plant could with proper treatment be profitably cultivated. For a number of years *paddy* was successfully grown in reclaimed swamp land and an experimental planting of *mung dal* and *til*, in June 1874, gave satisfactory results. *Sugarcane, Indian-corn, pine-apples, yams, plantains* and *papayas* were found to grow to perfection in land reclaimed from the jungle. A few thousand *cocoanut* seedlings were planted out in various portions of the settlement, many of which had been in

bearing for some years prior to our departure. These and other fruit trees now serve to enrich those who possess claims to the several localties thus planted. Of useful and ornamental trees introduced by us may be mentioned *neem, mango, jack, bael, tamarind, guango* (Pithecolobium saman), *mahogany* and *sisham,* in addition to which were some plants of the *Oreodoxa regia, Ravenala Madagascariensis,* besides a great variety of flowering shrubs and creepers, most of which well repaid the care bestowed on them. On account of their well-known febrifugal properties an attempt was made in 1874 to introduce the *Eucalyptus globulus* and the *sunflower,* but in the case of the former, failure was even more decided than in the higher latitude of Port Blair, where a like experiment was made about the same time, while in the case of the latter poor results were obtained. The sensitive-weed pest, known in the Straits as *rumput kamman,* was in some way accidentally introduced, probably with sheep's fodder from Port Blair, where it is now common. It soon spread with alarming rapidity over the heaths grazed by the cattle and defied the efforts made to eradicate it.

26. Export Trade.—This trade, which has always consisted almost entirely of cocoanuts, the quantities of other articles, *e.g.*, betelnuts, trepang, edible birds'-nests, tortoise-shell, ambergris, split cane, and mother-o'-pearl shells being insignificant, has greatly benefited by the establishment of the Government colony; while twenty years ago the trade was confined to probably not more than 15 to 20 vessels, representing an aggregate of about 12 lakhs of nuts, nearly all of which were procured at Car-Nicobar, the export trade for several years past has been carried on by from 40 to 50 vessels, and the quantity of nuts shipped has ranged between 35 and 45 lakhs, in addition to which, in many years, large purchases of nuts have been made locally by Government and resident traders for oil-making, export to Rangoon, or shipment to Port Blair for planting.

So far as can be ascertained, the annual aggregate yield of the cocoanut plantations in the entire group averages about 15 million nuts, of which probably upwards of two-thirds are consumed locally by the Nicobarese in supplying their personal wants and in feeding their live-stock.

Whether the removal of the Government colony will deter any of the native trading vessels from visiting the islands as heretofore remains to be seen, but, so far as their own interests are concerned, there is no reason why it should, for they will continue to enjoy the same facilities and freedom from risks, the fact being patent that the Nicobarese, now fully appreciating the advantages of intercourse with the outer world, are more anxious than ever to encourage the visits of these traders, from whom they will hope to procure supplies of such articles as they have long since obtained at Nancowry and learnt to regard almost as necessaries of life

The knowledge of our intention to pay frequent visits to all the islands of the group must have a salutary effect in preventing a recurrence of such disputes between the traders and the Nicobarese as led the latter in former years to have recourse to murdering crews and scuttling their ships.

27. Wrecks.—The following appears to be a complete list of serious shipping casualties and wrecks at or near these islands during the period under review :—

16th November 1870.—Minnie Lonsdale, three-masted schooner, 200 tons, from Penang, wrecked off north coast of Trinkat ; no lives lost.

1874-75. —" One native junk wrecked on west coast of Camorta "—(no further particulars on record).

21st May 1879.—Barque *Khandore,* 720 tons, foundered 220 miles south-west of Nancowry. Crew (34 men) landed safely at Government station.

December 1884.—Two castaway boats from Tongkar (Junkseylon), one containing 4 men, driven on to Car-Nicobar; the other containing 4 men, 1 woman, and 2 boys, landed at Kondul.

30th January 1885.—Barque *Revello,* from Greenock, bound for Rangoon, with 1,300 tons coal, being on fire, was beached on west coast of Nancowry, where she burnt to the water's edge, only 200 tons of coal and a portion of her fittings being recoverable. No lives lost.

12th January 1885.—Junk *Kim Haut Hin* drifted on to a reef off south coast of Little Nicobar, and there wrecked.

17th November 1885.—Barque *Hap Singh* lost at sea with cargo of nuts while on way to Moulmein.

November 1886.—Three baglas (*Gunga Narain Pershad, Dowlat Pershad* and *Dowlat Passa*) while at anchor in Sáwi Bay (Car-Nicobar) were driven ashore in a north-west gale and wrecked. No lives lost.

28. *Local Events.*—From April 1869, till the close of the settlement, the principal local events of general interest that are recorded are—

(1) *In January 1871.*—The visit of H. M. S. *Dryad,* in order to *take possession* in Her Majesty's name of the Northern and Southern Groups, by reading proclamations, firing royal salutes and hoisting the British flag at Car-Nicobar and Great Nicobar, the original proclamation annexing the islands in 1869 not having been formally made known elsewhere than at the Central Group.

(2) *March-April 1875.*—Several European astronomers arrived in the I. G. S. *Enterprise* in order to observe the *total eclipse of the sun* on the 6th April. As a cloud obscured the sun

at the critical period of 3½ minutes during which totality lasted, the desired observation could not be made, and the expedition consequently proved a failure.

(3) *April 1875.*—First recorded interview with *Shom Pen* (inland tribe of Great Nicobar) by Europeans, M. de Röepstorff having succeeded in seeing two men of this remote tribe, when he satisfied himself that they were of Mongolian stock and in no way allied to the Negritos of the Andamans, as was till then thought to be possible, if not probable.

(4) *31st December 1881.—Earthquake and Tidal-wave* experienced at all the islands, but chiefly at Car-Nicobar, where numerous huts were rendered uninhabitable and hundreds of cocoanut trees levelled almost to the ground.

(5) *26th-27th August 1883.*—Alarm caused by mysterious sounds as of distant firing, accompanied by irregular tides and followed for several weeks by a peculiar appearance of the sun, especially at sunset; these phenomena were afterwards ascertained to be due to the effects of the disastrous *earthquake* in the Sunda Strait.

(6) *24th October 18 3.*—Murder of *M. de Röepstorff,* while in charge of the islands, by a havildar of the detachment of the 2nd Regiment, Madras Infantry.

(7) *4th February 1884.*—Arrival of Her Majesty's I. M. S. *Nancowry* for service at the Nicobars, to enable the Settlement Officer to visit all the islands of the group at frequent intervals.

(8) *December 1884.*—Attempt made to *colonize the Nicobars* with Chinese from the Straits Settlements, 15 men being obtained on one year's engagement; but for the reasons already explanied, the attempt failed and the entire party returned to the Straits.

(9) *November 1886 to April 1887.—Survey of the islands* carried out under Lieutenant-Colonel G. Strahan, R.E. The charts since issued show, for the first time, the correct configuration of the coasts of all the islands, their relative position, and the names and position of all villages, rivers, etc., together with the heights of the principal hills.

29. INTRODUCED DURING OCCUPATION.—In addition to the trees and plants mentioned in paragraph 26 as successfully established and cultivated in the Government station, it may be added that cheetul deer, peacocks, crows, pigeons, bul-buls, and hill mainahs were introduced during our occupation. The wild buffaloes on Camorta, the progeny of the animals left by the Danes, have done remarkably well, and have on occasions afforded sport both to the Nicobarese and to visitors.

In evidence of this may be mentioned (1) the material gain they have experienced by the expansion of their cocoanut trade, owing to the confidence inspired by the annexation of their islands to British India and the protection thereafter afforded to those desirous of trading with them; (2) the prohibition, since 1881, to import spirituous liquors, arms and ammunition, without a licence [With regard to this it may be mentioned that in former years it was usual for trading ships to bring large quantities of abominable white arrack, single bottles of which, costing three or four annas, were gladly purchased by the ignorant natives at the equivalent of a rupee, with the result that drunken orgies were of frequent occurrence, but since 1881 these have been a thing of the past.]; (3) the enforcement of respect for life and property by protecting them when ill-treated by lawless traders, who have been fined or imprisoned, and punishing those of their own race when convicted of murder and other offences.

Until the arrival of Her Majesty's I. M. S. *Nancowry* in February 1884 for service at the Nicobars, our knowledge of the inhabitants of Car-Nicobar, Chowra, Teressa, Bompoka, the Southern Group, and even of the west coast of Katchall, was very slight, being chiefly derived from the few flying visits made by the Government steamer from Port Blair.

As regards Car-Nicobar, which in respect to its products, trade, and population contains by far the most important and promising community, although we were soon able to verify the statements set forth in the numerous certificates held by the leading men of the island testifying to the many good qualities displayed by them in their dealings with ship traders, we were surprised to discover in the first few weeks (*viz.*, in March 1884), the existence of a barbarous and superstitious custom of long standing known as "devil-murder," which is happily peculiar to this one island. It was found to be based on the belief that those individuals whose conduct is regarded as in any way suspicious either possess the Evil Eye, or, at any rate, have dealings with the powers of darkness, whereby they are able to exercise a malign influence over the health and fortunes of their neighbours. If any unaccountable sickness or death should occur, it would go hard with any morose or unpopular member of the village who might be suspected as responsible for the misfortune, and, in many cases, even the wife or husband and children would be regarded as accomplices and made to share the same fate, which was rendered all the more terrible on account of the shocking cruelty accompanying it. The wretched victim was usually taken unawares and overpowered by two or more young men, who, while forcibly holding him face downwards on the ground, proceeded to bend back each arm in succession until the tendons at the shoulders had been either severed by extreme tension or so stretched as to render those limbs powerless. The legs were then, in like manner, pulled backwards till, it is affirmed, the stout tendons near the groin were so injured as to render the poor wretch powerless to stir, whereon a cord or stout fibre was passed round his (or her) neck, and the ends pulled by the executioners or their friends till death ensued from strangulation. The bodies of such unfortunates, being regarded as unfit for burial, were usually taken out to sea and sunk with stones, in the belief that there was thereby less risk of their spirits haunting the island; the apparent needless cruelty of maiming their victim before strangling him is seemingly explained on the like grounds.

From the statements made by those who had no motive for concealment or exaggeration it appeared that "devil-murders" had been of frequent occurrence, and, though disapproved by many among them, were tolerated as an institution possessing the sanction and authority of immemorial custom.

The cases first brought to our notice (in March 1884) all related to the preceding six or eight months, and the particulars furnished by our informants were amply verified by the admissions of the accused, who were in evident ignorance of the rigid views held by civilised races regarding offences affecting life, and of the penalty attaching to the crime of murder. This, therefore, had to be explained to them and threats of capital punishment were at the same time held out in the event of the recurrence of such crimes. Endeavours were likewise made, but with questionable success, to assure them of the fallacy of the monstrous belief forming the sole ground for the commission of these atrocities. Another case in which a Burman trader had been murdered under circumstances of great provocation was brought to light about the same time. The nine men concerned in these several crimes were sentenced to long terms of imprisonment at Port Blair by the Local Government. The punishments inflicted on this occasion, besides serving as a useful deterrent, contributed more than any previous act to instil a sense of, as well as a respect for, our authority throughout the group.

As in 1887 it was found that the action that had been taken had served its purpose in deterring others from committing similar offences, the sentences of these prisoners, after they had undergone terms of three or more years, were remitted. This step was also taken on the motion of certain of the leading men at Car-Nicobar, who had been instrumental in convicting the offenders, it being felt that it would minimise the risk of any ill-consequences from releasing the latter if they knew that this act of clemency had been prompted by those who had brought their crimes to light.

It is perhaps too much to expect that a custom which has been so long established in their midst, such as this species of lynch law, should be abolished in a day, and there is good reason to believe that certain reports made to the catechist (Mr. Solomon) while residing at that island last January were true, that two men had last year been done to death at villages on the east coast of Car-Nicobar; the one, a notoriously troublesome character, named Ramak, who, among other deeds, had lately killed his own child by dashing his head against a post, is believed to have been killed as a precautionary measure, he having threatened the lives of several; while the second victim appears from the vague information obtainable to have been merely a so-called "devil-man."

It having been mentioned in extenuation of these two cases that the people at the villages in question (Perka and Chokchúachŕa) were under the impression that in abandoning our station at Camorta we no longer intended to exercise authority over them, and that they might, therefore, again take the law into their own hands as in former years, no time was lost in disabusing them of this notion and in assuring them that they would continue to be visited and protected and offenders punished on conviction as heretofore.

So much space has been occupied in referring to this ugly feature in the social régime of Car-Nicobar that it will be necessary to deal more cursorily with some of the remaining matters of interest.

Within a fortnight of the arrival of the I. M. S. *Nancowry* in February 1884, not only had visits been paid to all the northern islands, but a trip was undertaken to the Southern Group, where unexpected success rewarded an attempt that was made to see some of the Shom Pen or inland tribe, who occupy Great Nicobar only. A few of them had first been seen by the late Mr. de Röepstorff in 1875, and again by the same officer when accompanying Colonel Cadell to Great Nicobar in the I. M. S. *Quang-tung* in March 1881.

Landing at Láfúl village (near the north-east corner of that island), and guided by some of the coast men, we ascended a lofty hill, on the summit of which we found two fair-sized huts on piles, owned by some Shom Pen. After some delay the timid "junglies" were induced to come from their hiding-places in the surrounding jungle. They were found to be brown-skinned, long-haired, possessing Mongolian affinities, and somewhat akin to the coast tribes, but inferior to them in physique and intelligence and of course also in culture.

When they had been re-assured by means of presents and food, photographs were (for the first time) taken of a group of this remote tribe, soon after which, to the surprise of all, two of the youths were prevailed on to pay a visit to the Government station (distant about 60 miles), on the promise being given that they would be returned in seven days. The visit afforded mutual satisfaction, and the lads were landed near their home on the day agreed upon, loaded with presents, and doubtless with many an extraordinary experience to narrate.

With the assistance of the coast natives of Great Nicobar we were soon enabled to visit the remaining huts and plantations of friendly Shom Pen living near the coast of the entire island, and it was ascertained that those living in the interior still occasionally raided the coast villages for such articles as they covet. On these occasions loss of life sometimes occurred, but as the Shom Pen possess still less courage than the coast people, the latter, even when outnumbered and taken by surprise, usually hold their own and drive them away.

It was soon discovered that the friendly Shom Pen who occupy small clearings within a mile or two of the coast on all sides of the island were not only ignorant of those living beyond a radius of about 5 miles from their respective homes, but were in such dread of passing beyond their own boundaries that it became evident that they too had experienced hostility from their fellow-tribesmen in the past. The assumption, therefore, is that the existence of the several Shom Pen communities near the coast is to be accounted for by their representing those who, from time to time, have either been banished from the main body or have separated themselves from the latter, in order to occupy more favoured localities.

In consequence of the larger number of coast people living on the west side of Great Nicobar, it was found that the Shom Pen "friendlies" near the coast villages on that side of the island were in some cases almost on a par with the former in intelligence and mode of living.

The two communities prove of some assistance to each other, as the Shom Pen supply their coast friends with the fine white cane of commerce, which the latter require not only for themselves and for barter with the natives of the Central Group, but also for sale to ship-traders, who dispose of it at Penang. In addition to cane, bark-cloth, honey, and other jungle produce, the coastmen also obtain from the Shom Pen a small number of canoe shells, which the latter are capable of making with sufficient skill to enable the former to convert them into very presentable canoes, almost equal to those made entirely by themselves.

If any belief remained in 1875 as to the existence, so long suspected, in the interior of Great Nicobar of a Negrito race, allied to the Andamanese and forming a natural link between them and the Semangs in the Malayan peninsula, it was entirely dispelled by the trustworthy information we were soon able to procure from the coast natives and through them from the Shom Pen.

An untoward event which occurred in September 1884 has affected our relations with the small Shom Pen community with which we first became acquainted, *viz.*, that occupying the north-east corner of Great Nicobar, but for the reasons just given, the other friendly communities being ignorant of the circumstance, it has in no way prejudiced their sentiments towards us.

The event referred to occurred on a second visit paid to Camorta by three Shom Pen lads, who, although accompanied by some coast friends from their own island and seemingly enjoying their visit, which was made as agreeable to them as possible, and notwithstanding that they were assured of their return in the steamer within seven days, unaccountably left their sleeping companions one night and disappeared into the jungle, where search was in vain made for them; as a few nights later a canoe and three paddles were missed from a neighbouring village, it became evident that the three youths had ventured to sea in the hope of finding their way home. No trace having since been discovered of them, there can be little doubt that they were all drowned: although two other Shom Pen came afterwards in the steamer to search for the missing trio and returned apparently satisfied that no one was to blame for the occurrence, the relations between them and the coast people as well as ourselves have never since been satisfactory.

From the foregoing it will be rightly gathered that we have no means at present of ascertaining, even approximately, the numerical strength of the inland tribe: the estimate of 700 at which it has been fixed, though merely a guess, is probably not far wrong.

It will thus be seen that the grant of the services of the I. M. S. *Nancowry* enabled us in a few weeks to learn more about the natives of the more distant islands than had been possible during the previous fifteen years; in the case of Car-Nicobar it is shown to have been instrumental in the detection of serious crimes, which would otherwise have continued not only unpunished but unchecked. It, moreover, afforded means to the natives, of which they readily availed themselves, of visiting portions of the group to which, till then, they had been entire strangers, and enabled others, who were in need of medical treatment, to be conveyed to the Government hospital at Camorta. The friendly reception and benefits which they there experienced soon became widely known and appreciated.

How rapidly the confidence and good-will of the leading men at Car-Nicobar was gained may be gathered from the fact that within two months of the arrival of the *Nancowry*, and after only two visits to their island, many of the natives begged that a Government station might be established on their island similar to that at Camorta, stating their readiness to grant an eligible site provided with a plantation of cocoanut trees. They at the same time candidly admitted that in former years, when they were ignorant of our policy and sentiments towards them, they had carefully refrained from reporting crimes committed in their midst, so apprehensive were they lest we should seize such as an excuse for making a settlement on their island and confiscating their property.

The following may be noted as the leading characteristics and points of interest of the several communities:—

Car Nicobar.—For generations past, the natives here have borne a good reputation, as thoroughly honest, peaceably-disposed, industrious and hospitable. They have during that time attracted a good trade in cocoanuts, and are ever anxious to extend their intercourse with civilised races and to acquire a knowledge of foreign languages. Owing to the large number of intelligent children in this comparatively small island, it presents by far the most promising field for missionary and educational enterprise. This is the only island in the group in which cases of elephantiasis (endemic at the Nicobars) are unknown.

Chowra.—In consequence of its small size and somewhat dense population, the natives are not in a position to attract trading vessels, requiring, as they generally do, all the produce of their cocoanut trees for their own consumption: owing to this they have had less opportunity than their neighbours of making the acquaintance of strangers, which accounts, in some measure, for the unfriendly and seemingly suspicious bearing evinced by many among them when first visited by Government vessels. They, however, bear a bad reputation among other Nicobarese for their inhospitality, churlishness and greed. The women are remarkable for their industry, making, as they do, all the pots that are used throughout the group, save a few which are imported, this being in addition to their ordinary domestic duties, while the men appear to spend a great portion of their time in swilling *tari*. Elephantiasis is far more common here than at any of the other islands.

Teressa and Bompoka.—Here the natives are industrious and well-disposed: they are regarded as the best cultivators, and besides the cocoanut, their chief occupation is the raising of

tobacco, which for many years has served as an article of barter between them and their neighbours. Owing to the limited extent of their cocoanut trade and the consequent scarcity of calico, the women here, as at Chowra, still usually wear skirts of split cocoanut leaf.

Camorta, Nancowry, Trinkat and Katchall.—These are known as the Central Group and as the scene of most of the outrages on trading vessels between 1837 and 1869. During our occupation the conduct of the natives has been most satisfactory. Though less active, demonstrative, and eager for intercourse than the Car-Nicobarese, they are, with few exceptions, thoroughly honest, truthful, and law-abiding. The objection which they naturally entertained to the establishment of a Government settlement in their midst in 1869 soon passed away, and gave place to a just appreciation of the benefits they derived in many material respects, as evidenced by the sincerity of their regret during our departure and since. The knowledge that the protection afforded by the Government settlement led to a large increase in their cocoanut trade cannot but make them careful to conduct themselves in such a way as not to induce these traders to go elsewhere for their cargoes. The natives of this and the Southern Group, in addition to their own requirements, provide all the canoes used at Chowra, Teressa, and Bompoka, as well as the largest of those used at Car Nicobar, the latter being sold through the agency of the Chowra men, who annually visit Nancowry Harbour for trading purposes.

Great and Little Nicobar and adjacent islets.—These are known as the Southern Group and comprise nearly two-thirds of the area of the entire Archipelago, though inhabited probably by no more than one-seventh of its population. From the paucity of the coast natives, their foreign trade is limited to supplying only two or three junks annually with cocoanuts, split cane, trepang, mother-o'-pearl shells, and edible birds'-nests. They are quiet and peaceably disposed, and have proved very useful in enabling us to make the acquaintance of the inland tribe, whose language some of them have acquired.

In the foregoing (paragraph 27) mention was made of the occurrence of several shipping casualties at or near these islands during the period of our occupation. It is important to add that the behaviour of the Nicobarese towards those thus dependent on them for assistance was exemplary, and there can be no reason to doubt the continuance of similar conduct on their part in future cases of this kind, provided of course no violence or provocation is attempted against them.

Much information of ethnological interest regarding this race has been collected by us for several years past, some of which has already been published, and more is in course of publication. Collections of the numerous objects used at the several islands have also been made, and among other museums these have been forwarded to the British Museum; University Museum, Oxford; the Imperial and Royal Museum of the Court, Vienna; and the Museums at Florence and Berlin.

APPENDIX B.

Extract from a Report by Mr. E. H. Man, dated 4th August 1880.

* * * * *

Car Nicobar.—Soil rich, but the island being fairly well populated, difficulty with the natives would probably arise if a foreign settlement were established.

Chowra.—Island small and, comparatively speaking, densely populated: is therefore not adapted for occupation by strangers.

Tillangchong—Is uninhabited owing, apparently, to its isolated position. Contains a quantity of cocoanut and other fruit trees without an owner. Is described as "Covered with thick primeval forest which thrives well."

Teressa.—Thinly populated and possessing much jungle land of fertile quality, and grass land suited for rearing cattle.

Bompoka.—Small and fairly well populated. Land, therefore, not available for an alien settlement.

Trinkat.—Although a large portion of this low-lying island is covered with primeval forest and uncultivated land which could with little labour be rendered capable of bearing a variety of valuable products, it possesses, at the same time, so many plantations of cocoanut, betel-nut and pandanus trees, which comprise the chief wealth of the people living in the small, scattered villages on the east coasts of Nancowry and Camorta, that the establishment of a colony on any portion of the island would be regarded by the natives with extreme disfavour. Considerable as are the present returns of cocoanuts and other products of this island, it is very certain that they are capable of enormous increase in the hands of skilled cultivators.

Nancowry and Camorta.—Thinly populated. Jungle soil of sufficient excellence to repay the labour of cultivation. Grass land admirably adapted for rearing cattle.

Katchall and the Southern Group of islands—Are very thinly populated and contain abundance of very rich soil, presenting, therefore, the most promising field for agricultural colonists.

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CHAPTER III.

ETHNOGRAPHY.

I. The Race.—Difficulty of Adequate Description—Dialect of the Central Group used in the Report—Antiquity on Present Site—General Description—Charge of Cannibalism—The Six Divisions of the People—Distinctions between the Divisions—The Shom Pen—Relations with the British—Government Agencies.

II. Physical Characteristics.—Physical Differences between Islands trifling—Man's Enquiries—Age—Reproduction—Endurance—Sluggish Nature—Due to Productiveness of Country—Food—Stimulants—Bodily Parts—Skin—Hair—Recuperative Powers—Diseases—Medicine.

III. Mental Characteristics.—Sense Development—Character—Capacity—Divisions of the Day—Expression of Distance—Expression of Direction—Knowledge of the Stars—Knowledge of Wind and Cloud—Linguistic Capacity.

IV. Religion.—General Description—Superstitions—Family Spirit Feast—Tabu—Attitude towards Superstitions—Common Superstitious Objects—Funeral Customs—The Southern Customs—Chowra Customs—Car Nicobar Customs—Special Customs as to the Revered Dead—"Devil Murders"—Priests and Novices—Folktales.

V. Social Customs.—Expression of the Social Emotions—Suicides—Marriage—Naming Customs—Fondness for European Names—Quarrels—Amusements—Dances—Music—Government—Family Government—Property and Heredity.

VI. Arts.—Manufacturing Capacity—Manufactures—Canoes—Fire-making—Clothing—Ornaments—Housing—Public Buildings.

VII. Commerce.—External Trade—Internal Trade—System of Reckoning—Commercial Scales—Reckoning of Time—Currency.

I. The Race.

Difficulty of Adequate Description.—It is not at all easy to present a brief, clear and yet adequate account of the Nicobarese and quite impossible to present an authoritative one, because of the insufficient study that has as yet been practicable of the people, the great number of more or less inaccurate notes extant about them, made by observers of widely different equipment for the purpose and scattered over publications difficult of access, the many unsettled controversial points regarding them and the considerable and complicated extent of their civilisation. And yet if it be conceded that they represent that portion of the Indo-Chinese race, which has been the longest isolated and freest from disturbing foreign influences, there can be no doubt of the ethnological interest they should excite and of the consequent value of studying the Nicobarese deeply.

The chief use of the present collocation of the main points of information as yet available will be to direct the student and inform him as to what has been, and what remains to be, ascertained.

Dialect of the Central Group used in this Report.—As the people of the Central Group have, owing to the fact that nearly all the settlements of foreign powers have been located there, been far better studied than the others, except where otherwise stated, all vernacular words and terms herein quoted will belong to the Central Dialect.

Antiquity on Present Site.—The Nicobarese in Ptolemy's day were reported by sailors to be "tailed" men, a statement due to the long, waggling end of the narrow loin-cloth still looked on by the Nicobarese themselves as representing the tail of their "dog" first ancestress.

In the 7th Century A.D., I-tsing, in his travels, describes them as a naked people, whose women wore girdles of leaves, whose coasts were lined with cocoanuts and betel-palms, who came off in canoes in large numbers eager to barter cocoanuts, plantains and articles of cane and bamboo for iron, which they valued beyond all things, who had "not much rice," who were of middle height and not black, who were skilled in cane and bamboo basket work, who ap-

parently understood the trade language of the day. In the 9th Century A.D., in the *Arab Relations* they were described as a naked people, the women wearing a girdle of leaves, who came off to passing ships to barter ambergris and cocoanuts for iron. Such generally is the description of the Chinese (and Japanese) travellers and traders who actually visited the islands in the first millenium A.D. Such, too, is generally the description of the travellers from the West that speak from personal experience up to Dampier, who was stranded in Great Nicobar in May 1688 and lived there for a time actually on "mellori" [a term for which he is apparently responsible, though Fontana (1795) calls it a Portuguese word], *i.e.*, pandanus paste, and that of the "fryer" who was living in his time as a missionary in Nancowry Harbour. Dampier's description of the people will be found in Appendix A.

The story is always the same:—Unclothed men, women with short petticoats, possession of cocoanuts, betel and ambergris, manufactures in cane and bamboo, eagerness to trade for iron with passing vessels, meeting strangers in canoes, isolation from the world except for passing ships. And it is a fair inference that the Nicobarese have been a very long time, at least two thousand years, on their present site, with the same civilisation and the same habits as they possess at the present day. In this view a study of them should be of great ethnological value, as it must be their habits that can explain those of the general Indo-Chinese race, to which it will be seen from the following pages that they presumably belong, rather than the other way round.

General Description.—The Nicobarese, despite local differences, can be fairly treated as one people (crosses, except a few with the allied Burmese, Siamese and wild Malay races being almost unknown and due to visits of trading vessels and strayed boats from the Malay Peninsula and these are not fruitful) whose affinities may be established from the following characteristics of some or other, but not necessarily all, of the inhabitants of the various islands:—Their houses are on piles; they stain the teeth with betel; they perforate and enlarge the lobe of the ear; they artificially deform the heads of infants by flattening the occiput and forehead; they have an aversion to milk; the marriage tie is weak and brittle, and women have free choice of husbands; they practise the couvade (paternal lying-in); they sniff for kissing; they have no caste; they are independent and undisciplined by nature; they are sociable and the sexes freely mix without restraint; their religion consists of spirit-scaring; they have holy days in certain months; they have definite courting customs; their mode of hospitality is to allow any stranger to enter the house and take what he wishes without question; they have special ceremonies for the disposal of the revered dead; they are fond of sport and matches; they eat dog's flesh; only the women will carry loads on the head and men's heavy loads are carried on a yoke; their language. All these points show them to be a Far-Eastern and not an Indian people. Their own idea of themselves is that they came from the Pegu-Tenasserim Coast, an idea borne out by physical structure, social habits, trend of civilisation and language. Everything so far ascertained about them points to an origin from the Indo-Chinese, as distinguished from the Tibeto-Burmese or Malay tribes or nations.

Charge of Cannibalism.—With regard to the old charge of cannibalism, it may be said that it is quite untrue, though a rare, secret and considered disreputable form of ceremonial cannibalism has been discovered on Camorta, as in India and elsewhere. It seems to be punished by murder and subsequent mutilation when discovered, as reported by the Missionary Haensel (1779—87), and as shown by some otherwise mysterious murders much later in our own time.

The Six Divisions of the People.—The Nicobarese are not divisible into tribes, but there are distinctions, chiefly territorial. Thus, they may be fairly divided into the people of Car Nicobar, Chowra, Teressa with Bompoka, the Central Group and the Southern Group. In the Great Nicobar there is the one inland tribe of the Shom Pen. The differences to be observed in language, customs, manners and physiognomy of the several kinds of Nicobarese may be with some confidence referred to habitat and the physical difficulties of communication. There is, however, nothing in their habits or ideas to prevent admixture of the people, for both intermarriages and mutual adoptions are as freely resorted to as circumstances will admit.

Distinctions between the Divisions.—In the matter of differences between islands and communities, the information available is neither complete nor certain, but it is nevertheless worth while to note down such as have been ascertained or reported for future guidance in enquiry. Abbreviations are here necessary in referring to Islands. N.=North : S.=South : C.=Central : C. N.= Car Nicobar : Ch.=Chowra : T.=Teressa : S. P.=Shom Pen.

Devil murders.—C. N. common Ch. and T. rare : C. and S. very rare.

Lying-in.—Ch. and T. couvade : C. N. Special lying-in hut with uncleanliness of the woman.

Bodily malformation.—C. and S. except S. P. flatten the occiput.

Hair.—C. N., Ch., C., cut level to below the ears, oiled, parted in the middle : T. cropped to a mop : S. untidy to the shoulders : S. P. unkempt, long and matted.

Female Dress.—Ch. and T. cocoanut-leaf petticoat : S. P. and S. bark-cloth petticoats : C. blue calico petticoats : C. N. red calico petticoats.

Fighting helmets.—C. and S. of padded cloth : N. of cocoanut husks.

Weapons.—S. P. wooden-head spears only : N. cross bows : C. and S. toy bows for children.

Days of rest.—C. N. 7th, 14th and 22nd in five of the lunar months of the S.-W. monsoon, in two of the N.-E. monsoon, perhaps copying the Ubokne of the Burmese traders.

Funeral Customs.—N. ossuaries : N., C., and S. P. special customs : Ch., T., and Pulo Milo in S. aërial "burial" : C. N. special burial of the revered dead in coffins.

Position of corpse in grave.—C. and C. N. feet to shore at right angles to it : Ch. and S. males, feet to shore, females, head to shore : T. parallel to shore : S. P. squatting and facing the nearest stream.

Position of grave.—C. and S. in cemetery between village and jungle with family divisions : Ch. and T. near the huts : C. N. on sea-shore near the village.

Spirit scarers.—C. *kareau*, human images, numerous : S. and Ch few : T. scarce and made of the skull of a deceased priest with wooden trunk filled with his bones : C. N. none.

Priests and novices.—*Mafai* or novices on C. N. only.

Locomotion.—C. bamboo and light wooden stilts for crossing muddy foreshores at low tide.

Cocoanut climbing.—C. N. loops round the ankles and a dah. Elsewhere, men without assistance, women with a cocoanut-leaf in place of dah.

Government.—N. chiefs, elders and council of three in each village : C. and S. no chiefs, except vaguely of groups of huts and cocoanut lands.

Villages.—C. N. and S. clean : elsewhere dirty.

Huts.—Ch. pent roofs tabued.

Food.—Ch. eat dogs.

Drink.—C. N. cocoanut-milk, no water (never at all except a little as medicine). N. toddy is sucked up through a tube from the storage vessel : C. and S. drink from a cup or out of a hole in the storage vessel.

Drink materials.—C. cocoanut vessels blackened with oil and soot.

Cooking utensils.—S. P. on bark : elsewhere of pottery.

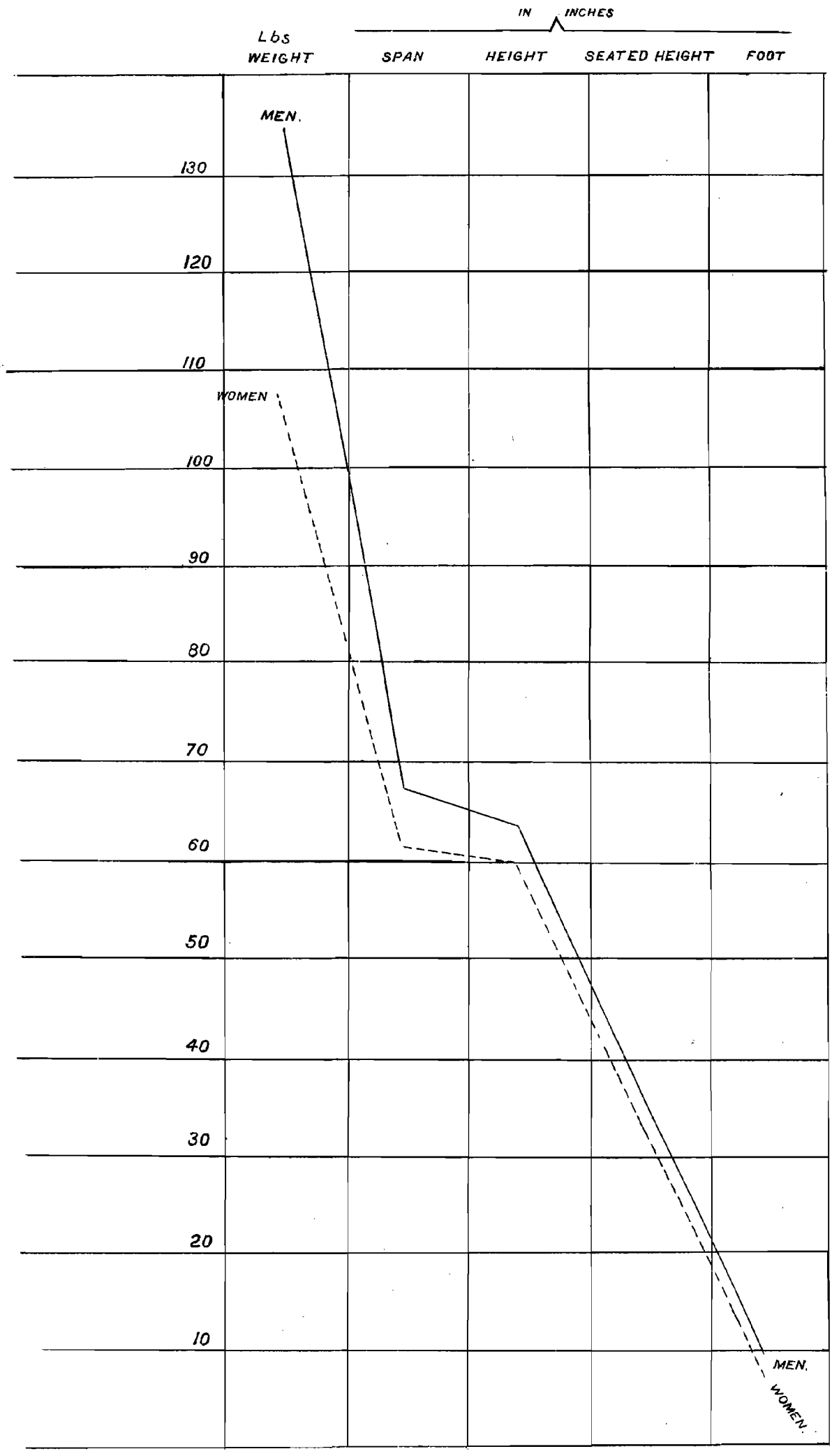
Pottery.—Made only on Ch.

The Shom Pen.—The ethnological interest attaching to the Shom Pen is in the fact that owing to their fear of the coast people of the Great Nicobar, and indeed of each other at a little distance from their houses, and the sterility of known crosses between them and the coast people, they probably represent the race in its purest form. It is also necessary to state distinctly that they are Nicobarese pure and simple, as so lately as in Yule's edition of Marco Polo it is stated—partly on the authority of one of my own predecessors based on local enquiry—that they were an aboriginal people like the Andamanese. There is no radical difference between a Shom Pen and any other Nicobarese. The differences are merely such as exist between islands and as are to be expected among people living an almost isolated existence. See Appendix F.

Relations with the British.—In 1882, during the occupation of the islands as a Penal Settlement, a system of control over all the islands was started by means of making formal appointments of all chiefs as from the British Government. The chiefs thus "appointed" are as far as possible "naturally selected" by the people themselves, but the Local (Andaman and Nicobar) Government reserves to itself the power to depose any chief who misbehaves and to appoint another in his place. The whole of the islands have now quite acquiesced in this procedure, and by its means an effective continuous control is maintained over all the Nicobarese.

Each chief receives a formal certificate of appointment, an annual suit of clothes, a flag (Union Jack), and a blank leather-bound book. All these he is bound to produce at every official visit to his village and he undertakes to hoist the flag at the approach of every ship, to produce his book so that the commander may write in it any remarks he has to make, to report to official visitors all occurrences, especially smuggling, wrecks and violent offences that have taken

COMPARATIVE MEASUREMENT OF NICOBARESE MEN AND WOMEN



place since the last visit, and to assist in keeping order. On the whole the chiefs perform their duties as well as people of their civilisation might be expected to perform them. In every other respect the people are left to themselves. See Appendix E.

Government Agencies.—In addition there are two Government Agencies maintained, one at Camorta and one at Car Nicobar. The duties of the Agents are to assist the chiefs in keeping order, to collect fees for licenses to trade in the islands and to give port clearances, to report all occurrences, to prevent the smuggling of liquor and guns, and to settle petty disputes among the people themselves or between the people and the traders as amicably as may be. Excepting the ceremonial "devil" murders of Car Nicobar, there is scarcely any violent crime and very few violent disputes with traders, and thus order and control are maintained perennially with hardly any hitches. The "devil" murders are dealt with directly from Port Blair.

II. Physical Characteristics.

Physical differences between islands trifling.—Physically there is little difference between the inhabitants of the various islands, except that the Shom Pen are about an inch shorter and are less robust than the coast tribes, are anæmic in complexion and have protuberant bellies, all due probably to diet, surroundings and mode of life.

Man's Enquiries.—The enquiries and measurements by E. H. Man of 150 men produced the following average results, showing the Nicobarese to be a fine, well-developed race.

Men.

Length measurement in inches.

Height	63¾
Full span	67
Seated height	33½
Arm	21¼
Hand	6⅞
Leg	34½
Foot	9½

Girth measurement in inches.

Chest	34½
Waist	30½
Thigh	19½
Calf	14½
Biceps	12

Other results.

Temperature	98·62 Fahrenheit.
Pulse	76 } Per minute.
Respiration	17 } Per minute.
Weight	136 lbs.

The measurements and statistics for the women being more difficult to procure are much fewer.

Women.

Height	60 inches.
Full span	61½ "
Seated height	31½ "
Foot	8¾ "
Weight	118 lbs.

So far as the measurements go the sexes compare as in the diagram attached.

Age.—The Nicobarese boys attain puberty at about 14, girls at about 13; they attain full height at about 18 and 17 and full growth about 22 and 21; the men marry at about 24 and the women much earlier, 14 to 15; they age at about 50 and live on to 70 and even 80. There are more old women than old men, and length of life is apparently greater than in India or Indo-China.

Reproduction.—Childbirth is easy, but not to an abnormal extent, and women are proud of a large family. The child-bearing age is 15 to 40 and children are suckled two years. During pregnancy the man and wife do not work and pass the time in visiting and feasting. Lying-in customs vary a good deal, but do not appear to be cruel in their nature. There is no partiality for male children, girls being as greatly, if not more, valued.

Endurance.—Living in for them such a land of plenty, the Nicobarese endure hunger and thirst badly and will eat and drink, smoke or chew betel at short intervals all day long whenever practicable. So little will they endure hunger that they will eat fish raw if delayed out fishing. They avoid the sun which is apt to give them headaches, and they thoroughly appreciate the virtues of a *sola topi*. Want of sleep is, however, borne with ease on occasion, though the sleepiness of the people in the daytime has deceived visitors. This is due to their habits of fishing and holding their ceremonies at night.

The Nicobarese can carry heavy weights, the average man's load being about 1 to 1½ cwt. and a woman's about ⅔ cwt. A full man's load is 3 score husked or 4 score unhusked cocoanuts slung in pairs on a pole, or 20 pair of water vessels filled. The former weight works out to 160—180 lbs. and the latter 110—120 lbs. Both sexes climb cocoanut trees with great skill and ease, and the men paddle their canoes long distances, and will walk up to 15 miles at 3 miles an hour with a load up to 30 lbs. without undue fatigue.

Sluggish Nature.—The gait is sluggish, slouching and inelastic, but extreme agility is shown in climbing the cocoanut tree and activity generally when there is anything important to be done. The Nicobarese on the whole do well what they are obliged to do. The daily necessary work is done regularly and systematically and with a strict division of tasks between the sexes, and they are then industrious and diligent. They are expert in paddling and sailing boats, but not good swimmers. They are skilful and persevering sea fishermen, spearing fish by torchlight from canoes and catching them in sunken baskets, but not in nets or with stakes. Fishing lines are, however, well understood.

The gait betrays the nature. The Nicobarese will not exercise or tax his powers of endurance if he can help it, resting with his loads every few hundred yards, and he is an adept in lessening the weights of cocoanuts when obliged to carry them. He will not walk more than five miles without a rest. Both sexes understand the advantage of working together at heavy tasks to the accompaniment of the voice. The women never go far from their homes.

Due to Productiveness of the Country.—The racial laziness is explainable by the climate and the ease with which all their wants are supplied by nature. The cocoanut tree is their great stand-by. It supplies them with a wholesome drink, goes far to feed themselves, and altogether feeds their domestic animals, supplies them with oil, spirits, vessels of every description and cloth, poles and thatching, sails for canoes, torches for fishing and means of trade and by trade of procuring all iron, luxuries, foreign articles and food they require. Fish and pigs are everywhere caught: pigs, fowls, and dogs are domesticated. Pandanus and cycas provide abundant farinaceous food, though no kind of cereal crop is ever grown. The areca-nut and betel-leaf and a great number of fruits are easily cultivated. Posts and planks for houses and boats are readily made from trees in the surrounding jungle. Twine binders and baskets and shafts for weapons are procured without difficulty from barks, bamboos, canes, and creepers. Thatching material is everywhere abundant from the *nipa* (*dhani*-leaf) palm and the tall coarse *lalang* grass.

Food.—The food of the Nicobarese is firstly the cocoanut and next the pandanus pulp, fish and imported rice. Pigs and fowls are kept for feasts. Dogs are eaten in Chowra. Cultivated fruits of many Oriental kinds are eaten everywhere.

Stimulants.—They are very fond of stimulants and smoke a great deal of cultivated tobacco. *Pan, i.e.*, betel-nut and betel-leaf and quicklime, is the usual stimulant and is in perpetual use. They make toddy from the cocoanut palm, constantly use it and often get very drunk on it. Any kind of foreign spirit is acceptable, rum and arrack of any sort being in much request. This is their great trouble with traders and foreigners, and has led to many disputes and crimes.

Bodily Parts.—The following may be taken to be the prominent external physical characteristics of the people :—The forehead is well-formed, the lips are normal and the ears of medium size, the eyes are obliquely set, the nose wide and flat, rarely aquiline, the cheek bones prominent, the face somewhat flat and the mouth large. The complexion is yellowish or reddish brown. The figure is not graceful, the waist being square and the back bending inwards sharply. The legs are extraordinarily developed, and the foot long. Such prognathism as is observable is due to habits: prolonged lactation, sucking green cocoanuts and betel chewing until the incisors of both jaws are forced forward in a revolting manner. Owing to their habit of dilating the lips by constant betel-chewing, the Nicobarese adults of both sexes are often repulsive in appearance.

Skin.—The skin is smooth throughout life and perspires freely, in the Car Nicobarese much about the nose. The people claim to tell the inhabitants of each group by their odour, but this is doubtful, as there appears to be no distinctive odour when the body is free from dirt and unguents, though the odour of these is often sufficiently repugnant to Europeans. The teeth are healthy and, though disfigured, are not destroyed by the disgusting habit of perpetual betel-chewing. They, however, loosen at 50 and fall out before 60, owing no doubt to the betel chewing.

Hair.—The hair of the Nicobarese is of the straight tough type, growing to about 20 inches in length and is a dark rusty brown in colour, though from being oiled it seems to be black. Occasionally among the Shom Pen it is curly. The hair on the body is scant, but by no means absent. Beards are not approved and are plucked out. When cropped the hair is stiff and brush-like. The middle aged are often bald but not grey till over 50. The women's heads are sometimes shaved and generally kept close cropped.

Recuperative Powers.—The recuperative powers of the Nicobarese are good, much better than those of the natives of India, and equal to those of Europeans. Life is not regarded as precarious after five years of age. Wounds, cuts, and contusions heal with great rapidity.

Diseases.—Insanity is unknown, epilepsy almost so, and bodily abnormalities are rare. The great epidemics of the neighbouring continents, cholera, typhoid, smallpox, measles and beri-beri, are usually absent and never endemic. Leprosy is unknown. Syphilis as an epidemic has been imported, apparently since 1800.

Smallpox of a mild and presumably therefore of an old type existed in 1800, but devastating epidemics of it in 1834 and 1856 were introduced by Malay vessels in the Central Group. In the second case, the introducer, a Nicobarese passenger, was killed and the people took "precautions" to prevent its spread.

In 1836 a virulent outbreak of cholera or more probably poisoning in Camorta occurred from devouring looted salt meat from an English barque off Expedition Harbour, but it was confined to the villages in and about the place.

Malarial fevers are rampant everywhere, but worst in the Central Group, and though the inhabitants of localities resist them, to all aliens they are specially deadly. A residence of three months in Nancowry Harbour was sufficient to bring on severe attacks. Of the 25 Danish Moravian (Herrnhuter) Missionaries, living under native Nicobarese conditions between 1768 and 1787, who spent from a few days to seven years there, 13 died in the place and 11 others soon after their return to Tranquebar.

Elephantiasis, as a mosquito-borne disease, has an interesting history. On Chowra, 522 people in 3 square miles, about 20 per cent., are attacked with it, but it is unknown on Car Nicobar, and is rare everywhere else.

This chief other diseases are climatic and specially abound, as do the fevers, at the changes of monsoon: asthma, bronchitis and other diseases of the respiratory organs. An anæmic condition, with its concomitants, splenic and liver complaints, tumours, swollen glands, is common on Chowra and the Central Group. Skin diseases are common, but not severe. Itch and pityriasis are the commonest and are "cured" by sea-bathing. The people are constant bathers and rub themselves over with cocoanut oil.

Medicine.—The medicine of the Nicobarese is almost wholly exorcism and belongs to the domain of superstition. The Nicobarese "doctor" cures by a spiritual fight with the spirit who has possessed the sick man and includes conjuring tricks in his practice, such as pressing damaging articles, like pigs' teeth, stones, etc., out of the body. Medicine is, however, practised to a slight extent, and the Government Agent's efforts to help a dying friend with medicine at Car Nicobar were refused on the ground that the people had their own. Haensel in the 18th Century speaks of decoctions of herbs. Aphrodisiacs are sometimes sought to the profit of Burmese and other native traders. Some unguents, gum resin, beeswax and ambergris are applied to the forehead for headache, and there is a mixture, dammer, cocoanut, gum resin, ambergris, and beeswax, used for the same purpose. Hog's lard is rubbed on in cases of fever.

Certain simple foreign remedies are understood and prized, *e.g.*, the virtues of rum, Epsom salts, Eno's fruit salt, turpentine, camphor, quinine. Bathing in sea water and rubbing in cocoanut oil are also practised as preventives of skin diseases.

Under foreign influence the "doctors" are now learning to prescribe. On 14th April 1896, a "doctor" at Kenuaka, on Car Nicobar, prescribed as follows :—

"Mix Eno's fruit salt in water. Add to it a little powdered camphor and turpentine. Give twice a day for colic and stomach-ache. Add a little quinine to the above in fever cases."

Of surgery the Nicobarese know nothing. Indeed, one of the main desiderata of the people is the teaching of simple medicine and surgery and the simple methods of differentiating and diagnosing diseases. G. Hamilton (1801) reports a case of surgery, which consisted of hammering the jaw of a fish with sharp spiked teeth into a swelling till it bled profusely.

III. Mental Characteristics.

Sense Development.—The sense development of the Nicobarese is normal, any excellence being due to special development for their daily requirements. Their sight is good, but not exceptional, though blindness and "old sight" are rare. The power of smell is normal, and they are fond of sweet scents and object strongly to certain others, *e.g.*, carbolic acid. Young men will bring home sweet scented leaves to gratify sweethearts and wives. The power of taste is, though extremely un-European, also normal, and they are able to distinguish flavour in food and drink at once. As to touch they can feel the points of a compass at from ½ to 1 inch apart. The hearing is good, but not abnormally so.

Character.—Taken as a whole, the Nicobarese, though for a very long while they were callous wreckers and pirates and then very cruel, and though they show great want of feeling in the "devil murders," are a quiet, good natured, inoffensive people, honest, truthful, friendly, helpful, polite and extremely hospitable towards each other and not quarrelsome, and by inclination friendly and hospitable towards, and not dangerous to, foreigners, though sometimes suspicious of and surly toward them, especially on Chowra and Katchall West. Kindly to children, the aged, and to those in trouble, even when foreigners, respectful and kindly to women, the wife being a help not a slave, and deferential towards elders.

They are very conservative and bound down by custom in all things, changing, however, with the times in certain respects, *e.g.*, they have abandoned since 1840 leaf tobacco for China tobacco twisted dry into cigarettes, Burmese fashion.

Capacity.—The mental capacity of the Nicobarese is considerable. It is lowest in the South and highest in the North, and there is a marked difference between the sluggish inhabitants of Great Nicobar and the eager trader of Car Nicobar.

Divisions of the Day.—The Nicobarese divide the day and night by the position of the sun and moon when the latter is visible, using the same terms for both; and by means of watching and stating their position they manage to roughly express nearly every hour of the day and night. The islands being so close to the equator, there is but little difference in the length of the day

and night at any period of the year. Even on dark nights they can express most of the hours.

There are of course, for the day, the usual forenoon, noon and afternoon—and then sunrise, morning, advanced morning, noon, afternoon, advanced afternoon, toddy-drawing time, sunset, twilight, dusk. For the night, dark, roosting time, supper time, after supper time, near midnight, midnight, deep sleep, near dawn.

Expression of Distance.—Distance in movement is expressed in terms of the time it takes to perform certain habitual actions. The chew of a betel-quid is about a quarter of an hour and roughly a mile on land. So a cocoanut drink is about two miles in a canoe. Nancowry Harbour to Chowra, 12 miles, is six cocoanut drinks. So a few moments is one holding of the breath: an hour is a stage of the sun: three hours by night is one small bundle of firewood and six hours is one large one.

Expression of Direction.—As among other Far Eastern people the points of the compass are thoroughly understood and constantly in mind. A Nicobarese always knows intuitively the direction North, South, East, or West of any object, action, condition or movement at any time, and constantly so describes position in his speech. The Southing and Northing of the sun is perhaps, naturally, abtributed to its being blown out of its proper course by the North-East and South-West winds, which prevail roughly in the winter and summer respectively.

Knowledge of the Stars.—The astronomical knowledge is strictly limited to actual requirements while sailing or paddling at night in calm weather and at neap tides from one island to another. Voyages are then made partly at night under star guidance as follows:—

Pole Star ahead.

(1) Central Group to Chowra.
(2) Southern Group to Nancowry.
(3) Chowra to Car Nicobar.

Southern Cross ahead.

(4) Car Nicobar to Chowra.
(5) Central Group to Little Nicobar.

Pole Star astern.

(6) Chowra to Central Group.

Steering by these stars is the old men's work. Young men will have none of it, for fear of such uncanny knowledge shortening their lives or ageing them unduly.

Knowledge of Wind and Cloud.—The study and knowledge of wind and cloud is also strictly practical. The terms for the winds have no connection whatever with the existing terms for the points of the compass. Kapa is the North Wind and Lohnga the South Wind, but Ful merely means that the wind is Easterly, and Shohong that it is Westerly. The North-West, North-East, South-West, and South-East are roughly, but indeed as exactly as in ordinary European colloquial speech, recognised by the combination of the appropriate terms, Kapa-Shohong, Lohnga-Ful, and so on. Two other terms are used in the Central Group to denote winds that will take a canoe direct to Teressa and Chowra, or direct to the Little Nicobar; Kapa-Mahaichan, direct North, and Lohnga-Mahaichan, direct South, though in fact these are really North-North-West and South-South-East respectively.

The only clouds distinguished are rain-clouds, which again are merely called black clouds.

Linguistic Capacity.—A noteworthy mental characteristic of the Nicobarese is their capacity for picking up after a "pigeon" fashion any foreign language with which they come into contact. The former Portuguese trade has left its mark in several terms: the records show that some of the Danish, French, German and English-speaking officials and missionaries did not acquire

a working colloquial knowledge of a Nicobarese language, and communication must have been in these languages or some form of Tamil or Hindustani: at present English and Hindustani are readily understood almost everywhere, and also Tamil, Burmese, Malay and Chinese are spoken and understood.

IV. Religion.

General Description.—The religion is an undisguised animism, and the whole of their very frequent and elaborate ceremonies and festivals are aimed at exercising and scaring spirits ("devils," as they have been taught to call them). Fear of spirits and ghosts (*iwi*) is the guide to all ceremonies, and the life of the people is *very* largely taken up with ceremonials and feasts of all kinds. These are usually held at night, and whether directly religious or merely convivial, seem all to have an origin in the overmastering fear of spirits that possesses the Nicobarese. It has so far proved ineradicable, for two centuries of varied and almost continuous missionary effort has had no appreciable effect on it: indeed, apparently none at all, if some of the "Creation" stories recorded from the Southern Group by de Röepstorff and the term *Deuse* learnt from the missionaries and still surviving among some of the Central Group islanders for a vague idea of an embodied "chief of the spirits," be excluded. A few rosaries still existed a generation ago in Nancowry Harbour. The one outcome of their religion of political import is the ceremonial murder of one of themselves for grave offences against the community, *e.g.*, for murder, habitual theft or public annoyance. Such an one is regarded as "possessed," and is, by a sort of lynch law, formally put to death with great cruelty. This is the "devil murder" of the Nicobars, now being gradually put down. Witches and of course witch-finders abound.

Superstitions.—It follows that the mind of the Nicobarese is largely occupied with superstitions, which cover the ancestors, the sun and the moon. The funeral ceremonies show that human shadows are the visible signs of the spirits of the living, and on Car Nicobar there is a special ceremony for "feeding shadows." Every misfortune and sickness is spirit-caused or witch-caused, especially so is that scourge of Chowra, elephantiasis, and the remedy in every case is special exorcism by means of the *menluana, i.e.*, doctor-priests, or general exorcism performed privately. Of this last class of remedy is the libation which is poured out before drinking always and at spirit feasts.

Lucky and unlucky actions and conditions naturally abound, *e.g.*, it is lucky to get a pregnant woman and her husband to plant seed in gardens. Uneven numbers are unlucky, and no others are allowed at funerals.

There seems to be an embryonic invocation of supernatural punishment – an idea so much developed in the *traga* and *dharna* of India—in some of the actions of the people. Thus setting fire to their own huts and property is one way of showing shame or disgust at the misconduct of relatives and friends, and Offandi, the chief of Mus, in Car Nicobar, once attempted to dig up his father's bones, before they were transferred to the ossuary, and to throw them into the sea, because an important villager had called his father a liar.

Family Spirit Feast.—The spirit feast is a family (including the friends) general exorcism with the aid of the *menluana*. The men sit smoking and drinking, and the women bring from the family stock, provisions, implements, weapons and curiosities, which last, after a good howl, they break up and throw outside the house. A large specially fattened pig is then roasted whole and divided between the ancestors and the party, chiefly the latter. By this the spirits are mollified.

The *menluana* now commence to work, worked up to an ecstasy by drink and their mysteries. Their faces are painted red and they are rubbed over with oil. They sing dolefully in a deep bass voice, and rush about to catch the *iwi* or spirit of harm, and coax, scold and abuse him, to a tremendous howl from the women, till after a struggle he is caught and put into a small decorated model of a boat, and towed far out to sea. Being now safe from the spirit, the fun is kept up long with eating, drinking, singing and dancing.

Evil spirits, specially those that cause sickness or are likely to damage a new hut, can be caught by the *menluana* and imprisoned in special cages which are

placed on special rafts and towed out to sea. It is when the raft lands at another village and transfers the spirit there that those quarter-staff fights take place that are described later on. In the North, elaborate feasts and ceremonies are held to confine the spirits and ghosts to the *elpanam*, public ground and cemetery, and to keep them away from the cocoanut plantations during the trading season.

Tabu.—Tabu, light or serious in its consequences, enters largely into the funeral customs, and appears again in a tabu of warning fires, light in houses, smoking and speech for a month after sweeping the spirits out of the cemetery on Car Nicobar.

There is also a strongly marked tabu of the names of deceased relatives and friends, which lasts for a whole generation. Tabu further affects the forms of the huts in some villages and islands. Among the Shom Pen the hut in which a death has occurred is tabued for an uncertain period.

The making of pottery is tabued except on Chowra, and certain large kinds of pots are tabued to certain old people at the memorial feasts. Making shell lime for betel chewing is tabued except on Car Nicobar, Katchall, Nancowry, Southern Group and parts of Camorta. One kind of fish trap is tabued for every place, except Nancowry Harbour in the rainy season.

There is a common kind of private tabu of much interest, and the persons undergoing it are termed *Saokkuq*, dainty, fastidious. It amounts to an embryonic asceticism. These people will not eat any food cooked by others, nor drink well-water. They will not eat domesticated fowls and pigs, and their drinking water must be rain or running water. They will only drink water drawn by themselves at a distance from the village, and rum out of a cocoanut shell. Bread, biscuits and rum are the only food and drink they will accept from others.

Attitude towards Superstitions.—The Nicobarese, and indeed the general human, attitude towards an inconvenient superstition is well illustrated by the following story from the Agent at Car Nicobar :—

"The Chief Offnadi, Friend-of-England, and a few other notables of Mus came and asked my permission to expel from the Beacon the ghost of the boy who had died the other day. I told them that the Beacon was a standard erected in honour of Her Majesty the Queen-Empress, and that no ghost could go into it. I also told them that if they defiled the Beacon, they must not expect the usual presents from the Queen (*i.e.*, the Indian Government). They then went into the nearest jungle, and caught the ghost in a thick bush and threw it into the sea."

There is, of course, also a good deal of humbug about observing the highly inconvenient funeral tabus. The late Okpank or Captain Johnson, a well-known chief in Nancowry Harbour, once refused rum on board a visiting steamer because of the tabu consequent on the death of a near relative, but was eager to get beer in its place.

Common Superstitious Objects.—The superstitious and animistic beliefs of the Nicobarese explain a good many articles to be seen prominently about their houses and villages. Of these may be taken as a sample the *henta*, in its various forms, the forms and purposes of which have thus been described by Mr. Man:—

The *henta* are paintings, punctured sketches on *areca* spathe screens, or carvings on boards. They are somewhat ambitious in design, containing some seven or eight pictures on a single screen, but ordinarily three or four. In the former, a representation of the sun surmounts the whole, or the sun and moon are represented at the top right and left corners. *Deuse* is depicted as standing dressed in some quaint garb; on either side of him are usually shown various weapons, implements, and articles in daily use. In the sketch below him are seen huts, cocoanut trees, birds, and sometimes men and women; below these domestic animals and poultry; below these again a row of men and women dancing; next come ships and canoes in full sail; and lowest of all are represented various descriptions of fishes, with the invariable merman or mermaid, and crocodile. When first made, and at subsequent times of sickness, the *henta* is called *henta-koi-henta*. They are made and used in the Central and Southern Groups and at Teressa; but only in the Central Group are representations of *Deuse* ever introduced. The object supposed to be served by the *henta* is, as in the case of the other similar carvings and paintings, to gratify

the good spirits (*iwi-ka*), and frighten away the demons ((*iwi-pot*). Varieties of the *henta* are :—

(*a*) The *henta-koi* are carved figures, or painted wooden or spathe screens, representing real or mythical animals, birds, or fishes, also models of ships, canoes, ladders, etc. The execution of these and other carvings and paintings by the Nicobarese, though crude, not unfrequently displays a fair amount of talent. *Kareau* at certain periods also serve as *henta-koi*. They are made at times of sickness at the direction of the Shaman (*menluana*), with the object of discovering and frightening away the bad *iwi* (*i.e.*, the evil spirits), which have caused the sickness. If the patient recovers the *henta-koi* is regarded with favour and retained for future service; but if the patient dies, it is thrown away into the jungle. The figure of a ladder (*halak*), when carved for this purpose, is intended for the use of the *menluana's* spirit to climb up and discover whether the malicious spirit is in the air; while the model of a canoe or ship is to enable his spirit to search among the neighbouring coast-villages or islands. The figures usually carved, punctured, or painted, are a mermaid (*shawala*), merman (*shamiral*), gar-fish (*ilu*), iguana (*huye*), fish-eagle (*kalang*), a mythical animal with human face and back like a tortoise (called *kalipau*, and declared to exist in certain portions of the jungle of Katchall Island), and various others. They are generally placed or suspended in the hut, but a few are sometimes to be seen in front of the huts. The object of these representations of animals, birds, and fishes is to invoke their assistance and good-will in the endeavour of the *menluana* to discover the whereabouts of the offending spirits, and to alarm the latter with the appearance of these effigies in the event of their venturing to repeat their visits. *Henta-koi* are to be seen principally in the Central Group, less commonly in the Southern Group, and rarely at Teressa and Chowra, and never at Car Nicobar, where the models of ships stuck on posts on the foreshore during the trading seasons must not be mistaken for an analogous practice, those effigies being used with the object of attracting trading vessels to their coasts at such times as they have accumulated large quantities of cocoanuts for export.

(*b*) The *henta-koi-kalang* is a carved fish eagle; one of the most common effigies used for the above purposes.

(*c*) The *henta-ta-oinya* is a single representation on a board or *areca* spathe of *Deuse*, and serves the purpose of a *henta*. Its name implies that the carving is carried through the board or spathe and does not consist of mere puncturing, or paintings, on one side of the surface of the material employed.

(*d*) The *henyuingashi-heng* is a *henta* representing the sun with a human face and eight "arms," between which are shown his children (called *moshaha*), to whom is attributed the faint light at dawn. The object of this and the next item (*henyuingashi-kahe*) is the same as that of other *hentas*.

(*e*) The *henyuingashi-kahe* is a *henta* representing the moon, in which *Deuse* is depicted as holding a wine glass in the right hand: on his left side are usually shown a pair of cocoanut-shell water-vessels, a lantern, *pandanus*-paste board, a basket, an *areca* spathe mat and pillow, also weapons, spoons, table, chairs, etc.: on the right side of the central figure are generally shown a watch, telescope, boatswain's whistle, various spears, spathe, mat, table, and decanters. Only in the Central Group is *Deuse* depicted in the above manner. This is probably due to the fact of missionaries in this and the last century having laboured longer in that portion of the islands than elsewhere.

High poles are to be found in the Central Group, attached to most landing places, and placed there at a fixed season for each village, to ward or scare away evil spirits. These poles run up to 60 or 80 feet. In Great Nicobar palm stalks similarly adorned are used to ward off fever. These are not to be mistaken for the very lofty poles with flags, 100 feet and much more, put up as examples of skill at the great quinquennial feasts (*etkaitni*).

Funeral Customs.—The funeral customs, the whole object of which is spirit-scaring, are distinct in the North and South and are noteworthy, but every where extravagant grief is displayed at all deaths for fear of angering the ghost.

The Southern Customs.—In the Southern (Central and Southern) Groups, notice is given to all friends and relatives, who are expected to be, and in the latter case must be, present if possible at the funeral ceremonies with presents in order to appease the ghost. Relatives unavoidably absent are tabued the village until the first memorial feast (*entoin*) a few days later.

The eyes of the dead are closed to prevent the ghost from seeing, the body is laid out, feet to the fire place, head to the entrance of the hut, and washed in hot water continually once to five times according to the length of time intervening before interment. Then follow eight obligatory duties :—(1) Removal of all food, as it is tabued to the mourners till after the ceremony of purifying the hut, only hot water and tobacco being allowed: (2) the destruction of the movable property of the deceased and placing the fragments on the grave as a

propitiatory sacrifice to the ghost: (3) the collection of a little food at the head of the corpse for the ghost, the "remains" of this are thrown on its removal to the dogs and pigs: (4) the construction of a bier made out of the deceased's or a mourner's broken up canoe: (5) the digging of the grave five feet deep and putting up the two head posts and the foot post: (6) the making of the fire to "bar the ghost" on the ground at the hut entrance out of chips from the bier and cocoanut husks: (7) the completion of the grave by placing the sacrificed articles on the ground or in the deceased's destroyed basket: (8) the throwing of the pig-tusk trophies, some *kareau* and pictures (*henta-koi*) into the jungle.

The deceased is buried in or with all the clothing and ornaments possessed in life to appease the ghost, and "ferry-money" is placed between the chin-stay and the cheek. The corpse is entirely swathed, except as to a small portion of the face, in new clothes of any colour, except black, presented by the mourners for the purpose. Burial takes place at sundown, before midnight or early dawn in order to prevent the shadows (*i.e.*, spirits) of the attendants from falling into the grave and being buried with the corpse.

Before removal to the grave, the body is taken to the centre of the hut and placed cross-wise to the entrance, where it is mourned a short while and then carried down the entrance ladder head foremost. Some of the mourners occasionally make a feint of going to the grave with the deceased, and the priest (*menluana*) exhorts the ghost to remain in the grave until the memorial feast and not to wander and frighten the living. When in the grave the body is pinned into it by special contrivances to prevent the *mongwanga* or body-snatching spirits from abstracting it. The spirits even of those present are finally waved out of the grave by a torch and it is quickly filled in.

After the burial the family return to their hut, in which they are bound to sleep, and about 24 hours after the interment, the hut is purified by mere brushing and washing, and the mourners by bathing, anointing on the head and shoulder by the priest, and the waving of a lighted torch to drive away the spirits. The family then disguise themselves by shaving the head and eyebrows and assuming new names, with the object of deceiving the ghost of the deceased. They then take a meal in silence with all the mourners, consisting of every variety of food procurable, in order that each person present may then and there choose the article that is to be tabued for him till firstly the *entoin* feast, three to seven days after the funeral, and secondly the *laneatla* feast, two to three years later. The balance of the food is placed on the grave. The vows of abstinence on these occasions may be therefore very light or very serious, as they consist in tabuing for self, intoxicants, tobacco, betel, pigs, fowls, fish, turtle, ripe cocoanuts, vegetables, plantains, and rice; ornaments, new clothing and paint; singing, dancing, and music. For a few days the tabu is nothing; for three years it is most serious.

At the *laneatla* feast the skeleton is exhumed and thoroughly cleaned, together with the ferry-money and silver ornaments, and reinterred, a custom which is a survival apparently of the still existing Northern custom of reinterment in communal ossuaries.

Sham fights with the quarter-staff are in vogue at these feasts to gratify the departed spirit. Pretty necklaces of plaintain leaves are also worn at the memorial feasts to please the ghost and friendly spirits.

A custom at most places connected with funerals is worth further investigation. It is customary after the funeral to cut through or severely notch a supporting post of the house so that it requires renewal. G. Hamilton (1801) reports this to be a vicarious sacrifice of one of the widow's finger joints, inferring a survival of the actual sacrifice of the finger joint. It would be desirable to know how far this is really the case.

Chowra Customs.—On Chowra and Teressa the dead are swathed in cloths and leaves and put into half a canoe cut across for the purpose and placed in the forks of a pair of posts about 6 feet from the ground. These canoes are in Chowra kept in a cemetery in a thick grove about 50 yards from the "public buildings" of the village, in Teressa on the sea-shore till they fall out and are partly devoured by the pigs. The bodies rapidly decompose and become skeletons without apparently much effluvia arising from them. Children are put into small half canoes. Every three or four years the bones are thrown at a feast into a communal ossuary.

An account of the great ossuary feast by Mr. V. Solomon, Agent at Car Nicobar, is attached in Appendix B.

Car Nicobar Custom.—On Car Nicobar there is serious wrestling over the corpse on its way to the grave: one party being for the burial and the other against it. This goes on till the corpse falls to the ground and several of the carriers are injured. It is then sometimes just thrown into the grave with the sacrifice of all the deceased's live-stock. In Car Nicobar there is only one short head-post, but this is carefully made in a conventional pattern.

Special Custom of the Revered Dead.—On Car Nicobar there is a special ceremonial for the burial of highly revered personages, which is a distinctly Indo-Chinese custom. The following is the account thereof by the Government Agent at Car Nicobar:—

> "Information about the death of a man at Lapati received. The man died on the previous evening at about 3 o'clock He was an old man of about hundred years of age .....the landlord of a third portion of the village. The burial ceremony was performed in a curious way; a short account thereof will be somewhat interesting.
>
> "The body was neatly wrapped in cloths under a curtain in the dead-room. An open sort of coffin, about 7 feet long and 4 feet wide, was made on the spot, and was fastened by six long, thick, green canes, three on the front side and three on the rear side; each cane was about 60 yards long. When everything was ready the coffin was drawn inside the dead-room on a sloping plank. The corpse was placed in the middle of the coffin and two women lay on either side of the corpse with their hands embracing it, and thus it was dropped below the house; when the coffin had fallen on to the ground, two stalwart men fell upon the corpse and lay together in the coffin. The large *elpanam* (public ground) of that village was filled by about a thousand people, both young and old, including those who came from all other villages of the island. Of these about a hundred men of the Southern villages and about a hundred of the Northern villages, caught hold of the long cane on either side and dragged the corpse up and down in competition. The canes were broken several times. Thus they occupied themselves until the grave was ready. At last they buried the body at about 6 o'clock. It appears that this ceremony is performed only when they bury those in the highest repute among them."

Devil Murders.—The "devil murders" of Car Nicobar are serious and cases occasionally occur on Chowra, Teressa and the Central Group. The missionary Haensel (1779-1787) reports them from the Central Group. "They commit, when there is, as they say, a necessity for it, murder." In Appendix D will be found notes on every case that has come to light during the last twenty years.

They are true ceremonial murders of men and women and sometimes even of children undertaken for the public benefit by a body of villagers after a more or less open consultation to get rid of persons considered dangerous and obnoxious to the community.

The causes of the murders have proved to be—

(1) Possession by an evil spirit,
(2) witchcraft to the public harm,
(3) danger to the community (a "bad man," incendiary),
(4) homicidal proclivity,
(5) fear of homicide (threat to kill),
(6) failure to cure (murder of a "doctor" *menluana*),
(7) theft.

But the root cause is always spirit possession—the victim is bad and dangerous because he is possessed.

The orthodox method is very cruel. The legs and arms are broken or dislocated so that the victim cannot fight; he is then strangled and his body sunk at sea. But it will be seen from the details that there is a good deal of variation from this practice in actual fact. The victims are usually taken unawares, but sometimes they make a fight and struggle for life.

Priests and Novices.—The *menluana* is a Shaman or doctor-priest of a sort that is common to many half-civilised peoples, but there is an interesting variety of him at Car Nicobar in the *mafai* or novice, the word actually meaning one undergoing sacerdotal instruction. Any one that feels himself inspired may become a *mafai*, but does not necessarily pass on to the state of a *menluana*.

He can give up the position at any time. The ordinary cause of becoming one is recovery from severe illness. The ceremony of making one is to place round his bed spirit-scaring articles and plenty of toddy. He is then profusely adorned with spirit-scaring articles and silver or platedware and many spelter rings are put on his arms and legs. He is then placed in a chair, given a *menluana's* silver-mounted sceptre, a spirit slaying dagger, and a bottle of toddy with a straw to suck through. He is now inspired, is highly fed at the public expense and liberally supplied with toddy and danced round every night. He is carried about from village to village in his chair carefully sheltered from the sun. His use is to cure the sick by touch and shampooing. If he resigns his position as *mafai* he goes through a special ceremony for the purpose. It is acknowledged that some *mafais* are impostors.

Temporary mafaiship is hardly distinguishable from convalescence. In 1899 Offandi, Chief of Mus in Car Nicobar, was persuaded by *menluanas* for their own benefit that he was possessed. They extracted, by conjuring, bits of iron and stone from his body, *beat* the devil out of him by a rope's end, adorned his limbs with spelter wire, put a *mafai* sceptre in his hand, and kept him like that for several days before he was released by the resignation ceremony.

Folktales.—Tales of origin and the like, told in a jerky, disjointed fashion, the Nicobarese share with the civilised and semi-civilised world.

Chowra is their holy land, the cradle of the race where the men are wizards. A belief that the inhabitants of Chowra turn to good account for keeping the control of the internal trade chiefly in their own hands.

The Car Nicobar story of origin is that a man arrived there from some unknown country on the Pegu-Tenasserim Coast with a pet dog. By her he had a son, whom the mother concealed in her *ngong* or cocoanut leaf petticoat. The son grew up, killed his father, and begot the race on his own mother. The end of the long bow tied round the foreheads of young men is to represent the dog ancestress's ears, and the long end of the loin cloth, her tail. They treat all dogs kindly in consequence, whence perhaps we may trace a lost totemism among them.

At Car Nicobar, too, cocoanuts originally grew out of the head of a man who was beheaded for procuring water out of his elbow by magic. Water is scarce in Car Nicobar. The people, however, were afraid to touch a cocoanut till one was given to a dying old man who at once recovered. Cocoanut trees are therefore valuable spirit scarers and at every death some are cut down, the nuts placed in the graveyard and the leaves round the house, and the body is washed with the milk,—all to scare the ghost.

The moon at an eclipse is eaten by a serpent and a great deal of noise is made on such occasions to frighten off the serpent.

Their other tales are full of magic and mythical animals and supernatural occurrences. In them appears the *pait*, an ophiophagus, snake-eating snake, which is *not* indigenous: the *tekari* which (?) is a tiger or lion, *not* indigenous: the *akafong*, a pure myth nowadays with a flame for a tongue.

In Appendix C will be found de Röepstorff's pretty tale of Shoan and the Mermaid. The latter is the whale's daughter, the cachalot being indigenous to the Nicobar seas. It is given as an instance of the receptivity of the Nicobarese to *foreign stories*, and hence the practically certain missionary and Biblical origin of the Great Nicobar tale of the Creation, in which *Deuse*, God, appears, also Eve and her birth, the forbidden fruit, and the temptation.

V. Social Customs.

Expression of Social Emotions.—There is a distinct expression of the social emotions by exclamations of the usual kind and a great deal of politeness in language, though the high degree of social equality among the people prevents the use of honorifics of any kind or titular forms of address. This is shown in such conventional expressions as the following and in the use of the term *pehari* (all right), as the obligatory reply to all polite expressions.

Kâhatore, (mutually), never mind; no matter.
Anri-chüh, (another still), the same to you.

Expressions demanding the reply pehari.

ta yait ta chakâ (in respect of beat in respect of face), I beg your pardon. *Pehari*, don't mention it.

Kôangatô me kāt (thank you now), thank you. *Pehari*, don't mention it.

chakâ hē kifē yôl (face we you? all), Here's to us all, friends? *Pehari*, to us all (toast at convivial meetings).

met (*ināt, ifēt*) *chaichachâka* or *chaicharakāt* (you greet-face-indeed, or greet-face-now), How d'you do? (you, you two, you all). *Pehari*, very well.

Expressions on departure.

yâshe me (*inā, ifē*) *ra* [part from you (you two, you all) now], Good bye; (said by guest).

tawātse me (*inā, ifē*) *rakāt* [just so you (you two, you all) now], Good bye; (said by host).

The conventions on visiting are thus described by Mr. Solomon, the Agent at Car Nicobar.

"At noon (24th May 1896) to-day four young women came from Malacca to Mus on some affair of their own, and came to my hut and asked me, "Where is Solo?" ("Solo" being my name to the Nicobarese). I replied in Nicobarese fashion, "I don't know." "Then who are you?" they asked. "I am a man." "What is your name?" they asked. I said, "I have no name." All this is in tone with Nicobarese manners. I then said, "Tell me your name and I will tell you mine." They complied and then I revealed the fact that I was Solo."

Suicide.—The above remarks show that the social emotions are strongly felt and a fact to this point is that James Snooks, an elder and landholder at Mus in Car Nicobar, committed suicide by hanging himself on the 5th October 1902, owing to domestic troubles with his children, whom his ghost will no doubt exceedingly trouble.

Marriages.—Girls are free to choose their husbands, but as is the rule where female freedom of choice in marriage exists, the questions of trees and pigs, *i.e.*, wealth, influence relatives, who then bring pressure on the girls in favour of certain suitors.

There is no marriage ceremony, and though dissolution of marriage by mutual consent is common, unfaithfulness during marriage is rare. On separation the children go to relatives and step-children are not kept in the house. That is, children being valuable possessions in a thinly populated land, are looked on as belonging to the families of the persons who produced them.

Naming Customs.—A child is named immediately after birth by its father and an additional name is granted as a mark of favour by a friend. This name is frequently changed in after life, which causes trouble when identity is sought by officials. A chief cause of change is the tabu of the name of deceased relatives and friends for a generation, for fear of summoning their spirits, and the obligatory assumption of the name of the deceased grandfather by men and grandmother by women on the death of both parents. Also any person may invent and adopt a name for self out of any word in the language, a custom which combined with the tabu on death here, as elsewhere, has a serious effect on the stability of the language in any given locality and has caused the frequent use of synonyms.

There is a feast on the occasion of naming a child and a ceremony before it, directly bearing on spirit scaring. On the name being given the women start crying and then collect round a trough, crying all the time, into which they throw specimens of all the food of the feast, each with a good wish for the babe's good luck in life. When this is over the trough is thrown into the sea and all spirits of harm are exorcised.

Fondness for European Names.—The Nicobarese have for a long while had a great fancy for foreign, chiefly English, names, with an extraordinary result, for traders and others have for generations allowed their fancy play in giving unfortunate Nicobarese ridiculous names, which have been used in addition to their own by the people in all good faith. Many persons also bear Indian, Burmese and Malay names in a corrupted form. A chief, or headman, is usually styled "Captain," a title they regard as lofty from observing the position of a ship's commander on board.

Quarrels.—Quarrels are nearly always settled by mutual friends and seldom get beyond angry words, the final settlement being concluded by a feast given by the party adjudged to be in the wrong.

Quarrels of a sort however arise over superstitions. When a family evil spirit has been caught and sent to sea in a model canoe and this canoe lands at another village or house site, the evil spirit has been transferred to a new house and vengeance results. This is taken secretly by the aggrieved party and all its friends, who collect and on a dark night attack the offenders, while asleep, with quarter-staves steeped in pig's blood and covered with sand. They wear helmets consisting of a cocoanut husk and smear their faces with red paint, so as to look savage.

There is however not much real savageness in it. The sticks are so long that they cannot be used in the houses and so the attacked party has to come out, which it does readily. As every village is liable at any time to such an attack, it is always prepared and keeps quarter-staves and cocoanut helmets ready for the purpose. There is a great deal of noise and some vigorous hammering till one party is getting the worst of it and then the women interfere and with dahs part the combatants. Sore limbs, bruises and broken fingers, but no broken heads are the results, of which the heroes are proud. When all the trouble is over, the aggressors remain as the guests of the other party and after a couple of days' feasting return home.

This procedure is adopted also when serious general offence is given by any particular person.

Amusements.—The great pastime of the Nicobarese is feasting and besides the numerous religious feasts and ceremonies they are constantly giving each other private feasts, of which the following is a description from Car Nicobar.

A week before an intended feast, a Nicobarese sends friends or dependants decorated with garlands to those he wishes to invite. When they arrive, they are entertained with betel, cheroots and toddy, and, if possible, a sucking pig. After this the invitation is given, and the intended guest is asked to bring some food with him to help out the feast. If he can he accepts: if he cannot he declines. On the night before the feast the guests are reminded by messenger. At the fixed time, usually at night, the guests arrive with baskets of food which they deliver to the house-wife. These consist of pork (roasted or boiled) cut into thick pieces; yams of different kinds; plantains and papayas (all boiled); *ku-wen* or bread fruit pudding—all fastened to strings, in such a manner that each string may be given to one guest: one or two bamboos filled with toddy; betel-nut neatly folded and fastened to thin bamboo sticks; and China tobacco (*sannoi am*, or dog's hair as they style it) twisted in dry pandanus leaves and arranged in bamboo holders. The food brought by one guest can be shared with about ten or fifteen other persons. The host slaughters one or two pigs and prepares other things according to his ability.

When all the guests have arrived, toddy is served out first in a small bamboo vessel or in a clean cocoanut shell, and then the food is distributed in basket plates made of cane. The chiefs and elders sit in a row in the middle of the room and the others here and there scattered about, and while they are eating they smoke cheroots and chew betel nut at intervals. After finishing the food the elders commence to sing jovial songs followed by the younger men. Thus it will be seen that the Nicobarese dinner party costs the host very little; but, on the other hand, he must be prepared to return the obligation to help his friends when his turn comes.

The people do not seem to play games much, their leisure time being so occupied with religious and other festivals. But wrestling and playing with the quarter-staff are favourite amusements.

For children spinning tops are ingeniously made out of the betel nut and a bit of stick and so is a toy windmill, of the fashion well known in Europe, out of the seed of a creeper. Models of all kinds of articles are also made as toys, and toy imitations of the articles a dead child would have used in later life are pathetically placed on its grave.

Dances.—The Nicobarese dance is a round dance performed inside or outside near the houses and in the North at the Assembly-house. They lay their arms across each other's backs, with the hands resting on the next person's shoulder and form a circle or as near as may be. Both sexes join, but in separate groups.

There is a leader in a monotonous concerted song and then they step right and left under his direction, and jump in unison coming down on both heels.

Music.—The Nicobarese are a musical people and sing clearly and well in unison. They compose songs for special occasions and are adepts at acrostic songs.

They have flageolet and a stringed musical instrument, made of bamboo, on which they accompany themselves.

Government.—Such government as the Nicobarese have is by the village. Each village has a chief, who is often hereditary, and recognised elders. In the chief is vested the land, but he cannot interfere with ownership of houses and products without the consent of the elders. Beyond a certain respect paid to him and a sort of right to unlimited toddy from his villagers, the chief has not much power or influence, except what may happen to be due to his personality. The maintenance of the chiefs or "captains" has been encouraged steadily for their own political convenience by all the foreign suzerains. Each chief has now a flag (Union-Jack), a letter of appointment, and a book, in which shipmasters and other visitors can record their visits. This custom was started by the Portuguese in the 17th Century, and has been carried on by the Danes, Austrians, and English in succession. In the eyes of the people a man so appointed by the foreign suzerain, unless a chief or elder naturally, is looked upon merely as an interpreter for communication with the suzerain without any social standing or power. Other persons besides the chief and the elders who have acquired a certain political power are the witch-finders and sorcerers (*menluana*). Government is in fact simple democracy bound by custom. Property is everywhere safe.

Family Government.—Families are patriarchal and are apt to live jointly. In such a joint household the father is the head of the family and after his death the mother. When both parents are dead the eldest brother.

Property and Heredity.—Houses and especially cocoanut and vegetable gardens are private property passing from life to life by heredity. The latter are carefully marked off and each owner has distinct notions as to the extent of his holding, which is carefully denoted by his private mark.

On the death of the parents all real property, *i.e.*, cocoanut and pandanus trees, fruit trees and all cultivated gardens, is equally divided among the brothers except that the lion's share of the cocoanut trees passes to the eldest brother. Practically all the father's personal property, *i.e.*, what he has purchased with cocoanuts in the way of clothing and luxuries of every kind, is destroyed at his death on his grave, a custom that keeps the people perpetually poor personally. The sisters inherit nothing at the death of the father. Their shares are allotted on marriage by the father or the brothers and consist of trees and pigs.

The whole subject of proprietary rights is still however most obscure and requires much more investigation than has hitherto been possible. According to the two Censuses of 1883 and 1901, in the Central Group the proprietary rights, that is village or grouped ownership, in cocoanuts has apparently changed in the last twenty years, as in the map attached. It must be understood however that this map is put forward as a definite groundwork for investigation rather than as a statement of established fact.

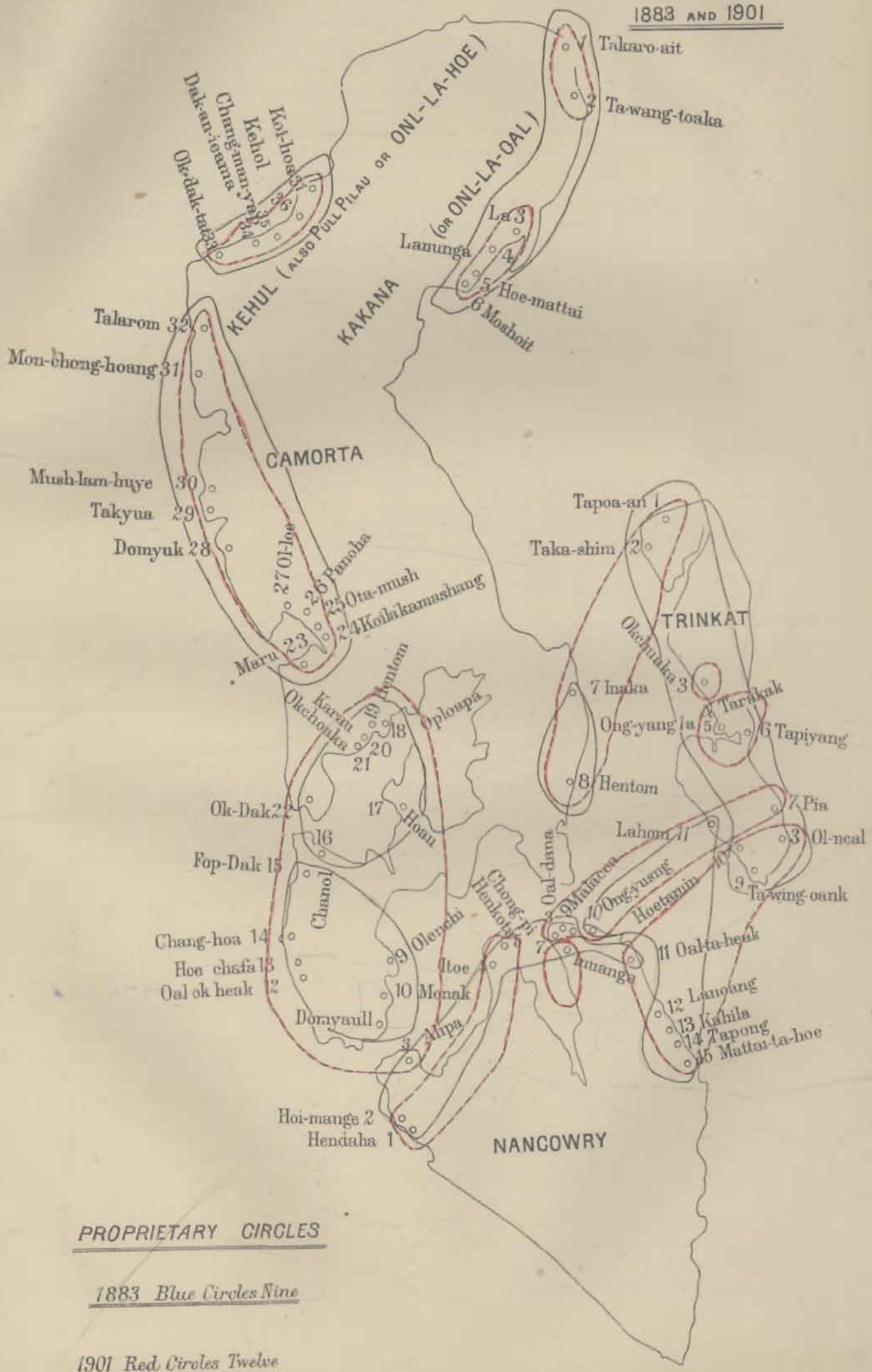
In Car Nicobar, where the villages are much the largest in the Islands the government and the land seems to be vested in the chief (*matakkôlö*) and three hereditary elders (*yomtundal*), who rule everything in it in council. All the village land is held by the people from this Council of Elders for cultivation, giving nothing for it beyond contributions at ceremonies. When Offandi, the Chief of Mus, sold land to the Government for the Mission and Agency without duly consulting the elders, he raised up much enmity towards himself, which it took a long time and many wordy quarrels to overcome. At the Census, however, only the appointed chief, his appointed deputy and each actual occupier of the land were recognised. In Appendix J to Chapter I and in Appendix G to this Chapter a list of these is given, which will be useful at the next Census for comparing facts and getting better at the real nature of the land tenure than was possible on this occasion.

VI. Arts.

Manufacturing Capacity.—The Nicobarese are good carpenters and can make good models of most of their larger articles. They can work in, but not make, iron, and are adepts in constructing all sorts of domestic articles: *vide*

NICOBAR GROUP — CAMORTA, NANCOWRY AND TRINKAT

ILLUSTRATING APPARENT CHANGES IN COCOANUT PROPRIETARY BETWEEN 1883 AND 1901



PROPRIETARY CIRCLES

1883 Blue Circles Nine

1901 Red Circles Twelve

Man's elaborate *Catalogue of Objects made and used by the Nicobarese*. Harpoons and spears of all sorts are made well, with detachable heads for pigs. All the heads are of iron, except for small fish and among the Shom Pen, who use hard wooden spears with notched heads. They make and use a cross-bow in some places, and everywhere quarter-staves (in the play of which they are adepts) and helmets, made of padded cloth or cocoanut husk. The pottery of Chowra is manufactured up to a large size and turned by hand, not on the wheel, and every maker has his own distinctive mark under the rim. The use of the pottery is for food that is cooked, *i.e.*, pork, pandanus, and cycas paste, fowls, rice, vegetables, cocoanut oil (for which however they have besides a special press). Fish is cooked in pots procured by trade from India. Rain-water is also ingeniously caught in Indian pots.

Manufactures.—In addition to the articles already described as being manufactured in connection with their superstitions, the following may be noted.

The Nicobarese are very expert and neat in articles made from the leaves and spathes of palms, the leaf of the pandanus and the shell of the cocoanut. The shells, with and without spouts, are used for storing every kind of liquid and small articles, for drinking cups, bowls, basins and lamps, for funnels, filters, for mortars in preparing powdered food, for scrapers and rings for pet parrots' feet. The leaf of the cocoanut is used for sails, thatch, skirts, and loin-cloths. Its stem-sheath for strainers; the spathe as a slow match, torch or light for cigarettes and fires.

The nipa palm is used thus: leaves for screens, spathe for mats, screens, fans, receptacles of many kinds, buckets, baskets, dishes.

Pandanus leaves are used for receptacles of several kinds, ornaments for the head, brushes, brooms and foot-wipers and covers of pots.

Out of wood, for preparing their food they make scoops for serving rice, pestles, graters, boards, spits. And a great number of domestic articles, including rakes, scrapers, pillows, poles, and so on.

They make iron scoops for cutting out cocoanut kernels, hoes, and tools for scooping out logs for canoes.

Shells of fish are used for many domestic purposes, chiefly as scrapers, and, at Chowra, in the manufacture of pottery.

Fibres of several kinds are used for thread, bow strings, fastenings for spears and harpoons, and fishing lines.

Bamboos and canes are used for many purposes. Of bamboo are made receptacles of all sorts, blow-pipes, betel-crushers, flageolets, lyres, and ear-sticks. Of cane, baskets of many sizes and descriptions, fish traps of many kinds, bird traps, cages for fowls and pigs. There is an ingenious bamboo spittoon and strainer connected with the manufacture of toddy.

The Nicobarese have found out the principle of Warren's Cooking Pot and use a wooden grating in an ordinary pot for steaming vegetables, pandanus and cycas paste.

Canoes.—The canoes are skilfully outrigged structures, light and easily hauled up and carried. They are made of one piece of wood hollowed out and burnt, and very carefully constructed: flat-bottomed, big-bellied, narrowed towards the top, with a small raised taffrail, battens for seats at regular intervals, and long and projecting bows. They are fast sailers, and, when properly managed safe in surf and rough water. The racing canoes are specially built and costly, with ornamental masts and flag staffs in the bows. The indigenous sails are wide masts of clipped cocoanut or nipa leaves, and erected two to four at intervals, with which the canoes will sail fairly well. Cotton lateen and other sails of borrowed patterns are, however, nowadays more commonly used with skill.

Fire-making.—Fire can be produced by an indigenous fire-stick arrangement, and must still be so for ceremonial purposes. For ordinary purposes, where matches are not forthcoming, bamboo fire-sticks are used as in Burma and the Far East, and produce a fire without much skill or practice.

Clothing.—The Nicobarese man at home wears only an infinitesimal loin-cloth, or rather string, fastened behind with a waggling tag. This must have been his garment from all time, because of the persistent reports that these

people were naked and tailed from the days of Ptolemy onwards to the middle of the 17th Century. The woman wears only a petticoat from waist to knee: nowadays of cotton cloth, but even still on occasion of the bark of the *ficus brevicuspis* and split cocoanut leaves. There is, however, from this point an infinite variety of clothing, the result of foreign trade and a fondness for European articles of dress. Anything he can get will be worn by the same man without regard to its appropriate use: "cylinder" hats, *sola topis*, blankets, shawls, coats, waist-coats, trousers, bits of uniform, Port Blair convict clothing of any kind.

The split cocoanut-leaf petticoats are confined to Chowra and Teressa, are very neatly made and are three in number, worn one over the other. The inner one is six inches long and the others a foot each. The bark-cloth petticoat is confined to the Shom Pen and the Southern Group coast people.

Ornaments.—As personal ornaments, ear-sticks with silver ends (usually four-anna pieces defaced), are generally worn and there is a sort of crown worn at Car Nicobar by young men returning from a journey to Chowra.

As semi-religious ornaments (and also as a cure for sickness) a number of German-silver bracelets, armlets and anklets are worn by *menluanas* (priests) and *mafais* ("novices"), as well as necklaces of large silver beads.

There are also ornaments of iron made on Chowra in imitation it is said of ancient weapons, which are costly and highly prized everywhere as curiosities and evidences of wealth. These are probably worth ethnographic enquiry.

Housing.—The people are well housed, the houses being often of considerable size and containing an entire family. The house is raised on piles some 5 to 7 feet from the ground, and consists of one large boarded floor, with mat and sometimes boarded walls, but without divisions. It is approached by a movable ladder. The houses are usually circular with a high thatched pent roof, but they are sometimes four-cornered oblongs. The thatching is of grass or palm leaves. Underneath are often large four-square platforms for seats or food. There is much rude comfort about such a dwelling, and inside it everything has its place and all is kept clean and in order. The cooking place is in a separate small hut in which are kept the cocoanut water-vessels, and the *larom* or prepared pandanus. Besides the dwelling houses there are, in the northern villages, special houses for the moribund and the lying-in women. The interior of the villages and the immediate surroundings of houses are, in the North, kept well swept and clean. Nicobarese villages vary in size from one or two houses to about fifty or more, and are situated in all sorts of sites, but usually on or near the sea-shore. When on a back-water or site safe from a heavy sea the house piles are at times driven into the sand below high and even low-water mark. In the house are kept all the utensils, weapons, ornaments, and belongings of the family, in chests on the floor, on platforms built into the roof, about the walls and roof. In places the most striking objects to the visitor are the *kareau*, or spirit-scarers: up to life-size figures of human beings often armed with spears, of mythical animals based on fish, crocodiles, birds, and pigs, and pictorial representations of all kinds of things in colours on areca spathe stretched flat, all connected with their animistic religion. There is often an armed figure just above the ladder. Outside the houses, too, will be seen similar "very bad devils," *i.e.* spirit-scarers. Of common objects, also, that can easily be mistaken as to use, one is the row or rows of pigs' lower jaws with tusks. These are not mementos of sport, but of the skill of the house-wife in rearing large pigs for food. Also bundles of wood, neatly made, are kept under the house, not for domestic use, but ready to place on the next grave that it will be necessary to dig. So, again, models of ships outside houses in Car Nicobar are not spirit-scarers, but signs to traders that the people are ready to trade in cocoanuts.

Public Buildings.—On Car Nicobar and Chowra, near each village by the sea-shore, is the *elpanam*, where are the public buildings of the village, consisting of a meeting house, a lying-in house, a mortuary and the cemetery. Village affairs, canoe races, etc., are settled at the assembly-house; a woman must be confined in and go through a probationary period of uncleanliness in the lying-in house and everyone ought to die in the mortuary: a dying person is removed thither if possible. At the *elpanam* are provided places for all foreigners, traders to set up their houses, shops and *kopra* factories.

VII. Commerce.

External Trade.—The Nicobarese never cultivate cereals, not even rice, and very little cotton, though carefully taught in this by the Moravians; but they exercise some care and knowledge over the cocoanut and tobacco, and have had much success with the many foreign fruits and vegetables introduced by the Danish and other missionaries. They club together in making their gardens, which are industriously cultivated and always, if possible, out of sight. They domesticate dogs, fowls, and pigs (which they elaborately fatten to English prize condition), but not cattle and goats, as they require no milk. They tame parrots and monkeys for sale. The staple article of trade has always been the universal cocoanut, of which it is computed that 15 million are annually produced, 10 million taken by the people (in most places cocoanut milk is their actual drink), and 5 million exported, $2\frac{1}{2}$ million coming from Car Nicobar and $2\frac{1}{2}$ million from the remaining islands. The export consists of whole nuts and *kopra* (pulp prepared for expressing oil). There is some export, also, of edible birds'-nests split cane, betel-nut, trepang (*beche-de-mer*), ambergris, and tortoise shell. The imports consist of a great variety of articles, including rice, cotton cloths, iron, cutlasses (*dahs*), knives, tobacco, crockery and pottery, glass-ware, silver and white-metal ornaments, sugar, camphor, wooden boxes and chests, biscuits, fishing nets, Epsom salts, turpentine, castor-oil, looking glasses, thread, string, matches, needles, Europeans' hats, old suits of cloth and cotton-clothing. Spirits and guns, though welcome, are contraband. As with all semi-civilized people articles of trade to be accepted must conform closely to fixed pattern. The foreign trade is in the hands of natives of India, Burmans, Malays, and Thinamen, who visit the islands in schooners, junks, and other small craft.

The system of trade is for the foreign trader to give the articles settled on for a certain quantity of cocoanuts to the local owner of trees in advance and then to work out their value from his trees himself. He must get the nuts down from the tree, make the *kopra* and take it away and the husks too, if he wants them, himself. All the Nicobarese does is to tally what he takes. It is a laborious system for the trader and requires systematic working.

A list of trade articles now in use will be found in Appendix H, and it is interesting to note that Busch in his Journal, 1845 (Danish Expedition), gives them as being then (1) cloth, (2) cutlasses (*i.e.*, *dahs*), (3) hatchets, (4) silver spoons, (5) Spanish dollars and rupees, (6) spirits, (7) guns, (8) knives, coloured cloths and European sundries, (9) Chinese and strong American tobacco.

In 1857 the Austrian *Novara* Expedition stated the articles of barter as follows:—*dahs*, axes, muskets, calico and coloured cotton stuffs, salt meat, biscuit, onions, rice, American tobacco in stick, medicinal salts, spirits of camphor, peppermint, turpentine, eau-de-cologne, castor oil, silver wire, beads, rum, old clothes, black felt hats. See Appendix I.

Internal Trade.—There is an old established internal trade, chiefly between the other islands and Chowra for pots, which are only made there. Chowra is also a mart for the purchase of racing and other canoes, made elsewhere in the islands.

The season for this trade is December to April. The Southern Group brings to the Central Group, baskets, tortoise shell, split rattans for canoes, sestus bark and cloth for matting and formerly for general clothing, and a few canoes. These are passed on to Chowra with spears, and racing canoes of the Central Group make, in return for a certain class of iron pig-spears and pots, and are sold by the Chowra people to Car Nicobar for cloth, baskets of Car Nicobar make and a great variety of articles, valued at Car Nicobar in cocoanuts.

There is a considerable trade between the Shom Pen and the coast people of Great Nicobar in canes, canoes, wooden spears, bark cloth, matting and honey for iron, *dahs* and cotton cloths.

Systems of Reckoning.—As reckoning is an important point of ethnography I have gone carefully into it in Appendix J as regards the Nicobarese; especially as the enquiry goes far to show that the inhabitants of all the islands, including the Shom Pen, are really one people—a fact that is not very clearly apparent otherwise. It also infers a long history of trade, and an old established civilisation of the present type, both of which facts can however be proved independently by direct historical evidence.

As a limitation in mathematical capacity it should be noted that the Nicobarese keep no records of reckoning beyond tallies and have no proper method for any mathematical process beyond tallying.

The conclusions that may fairly be drawn by an examination of Nicobarese ordinary and trade reckoning and the terms used in them are:—The system is Far Eastern, it is the same throughout the islands even among the Shom Pen, the terms, the methods and the very peculiarities have become interchanged between the islands and the original sense of the terms themselves is now quite lost. These conclusions infer a long growth, an old internal trade, and an ancient origin in the Far East. They further strongly infer a unity of origin for the people.

The basis of all Nicobarese reckoning is tally by the score and for trade purposes by the score of scores, and on this basis they have evolved a system of reckoning, which is naturally clumsy and complicated, but has become where trade is briskest simplified and made exact by an interesting series of rising standards up to very large figures. Tally is ordinarily kept by nicks with the thumbnail on strips of cane or bamboo, and in Car Nicobar, where trade in cocoanuts is largest, by notches cut in sets on a stick.

For ordinary purposes Nicobarese reckoning stops at about 600, except on Car Nicobar where it stops at 2,000, but for cocoanuts it goes everywhere up to very large figures and even the Shom Pen, who have no trade, have no difficulty in reckoning up to 80,000.

There is now no idea of the hand or multiplication in the terms for the smaller figures, but "five" is a clear derivative of an obsolete root for "hand," and in one or other of the languages 8 and 4 are multiples of 2, so are 6 and 9 of 3, and 9 is also "one-less-ten." So the terms for "and-a-half" applied to the score and score-of-scores contain clear lost roots meaning "lessened to half hand."

Commercial Scales.—The scales for reckoning cocoanuts stated in the European fashion are as follow, and show the extent of foreign trade per island: the greater the trade the greater the number of standards in the scale. It must be remembered however that the Nicobarese have no definite and only an instinctive scale. It will also be seen that the "wild" Shom Pen too have evolved a definite and useful scale for themselves, though without foreign trade.

SCALE FOR RECKONING COCOANUTS.

I.

For all islands.

10 *tafual* or *takoal* or *tahol* (pair) make 1 *inai* or *tom* score (20).

II.

Central and Southern Groups and Car Nicobar.

10 *tafual* or *tahol* . . . make 1 *inai* (20).
20 *inai* . . . . . „ 1 *momchiama* or *michama* (400).

III.

Chowra, Teressa, and Car Nicobar.

10 *tafual* or *takoal* or *tahol* (pair) make 1 *inai* or *tom* (score) (20).
10 *inai* or *tom* (score) . „ 1 *la*, *nong*, or *'ong* (200).
10 *la*, *nong* or *'ong* . . „ 1 *mamila* (*kaine*) (2,000).

IV.

Chowra.

10 *takoal* . . . . make 1 *tom* (20).
10 *tom* . . . . „ 1 *la* (200).
10 *la* . . . . „ 1 *mamila* (2,000).
2 *mamila* . . . . „ 1 *metnetchya* (4,000).

V.

Car Nicobar.

10 *tahol* . . . . make 1 *inai* (20).
10 *inai* . . . . „ 1 *'ong* (200).
10 *'ong* . . . . „ 1 *kaine* (2,000).
10 *kaine* . . . . „ 1 *lak* (20,000).

VI.

Shom Pen.

10 *ta-au* (pair)	. . .	make	1 *inai* (20).
20 *inai* (score)	. . .	„	1 *teo* (400).

One can see, when put in *this* way, which is of course distinctly not Nicobarese, where trade has sharpened wits.

Reckoning of Time.—The ethnographic result of examining the methods of the Nicobarese for reckoning time is exactly that of examining their methods for reckoning currency (cocoanuts). It is one system throughout, even to its peculiarities, and the methods of applying it practically in different islands dovetail so into each other and into the whole general system of reckoning as to presume them to be the creation of a people having a unity of civilisation.

The Nicobarese reckon time by the Monsoon, season or period of regular winds. Roughly the South-West Monsoon blows from May to October, the North-East from November to April, *i.e.*, for six months each. Two Monsoons thus make a solar year, though the Nicobarese have no notion of such reckoning. Within a Monsoon time is approximately divided by "moons" or lunar months. Each moon is divided clearly into days or as the Nicobarese reckon them *nights* up to 30 and more if necessary. As the Monsoons do not fall exactly to time but are "late" or "early," there is a rough and ready method of rectifying what would be otherwise obviously consequent errors in reckoning. The changing lunar months (September-October and March-April of our reckoning) have double names, according as the Monsoon is late or early, and are made to run on by intercalary days called *kanat* (*aiya-ap-chingeat* in Car Nicobar) or "moonless" in the former case. The first moon of the next Monsoon is cut short in the reckoning and thus the lunar months are made to fit into the year. Dark nights also when the new moon cannot be seen, are reckoned as *kanat* or intercalary days. By one or other method at their own appropriate time the Nicobarese manage to divide the solar year into two halves, of seven lunar months in Car Nicobar and six elsewhere, with sufficient approximation to keep the solar year straight, without having any idea of a solar year and using lunar months. In talking with the Nicobarese it has always to be borne in mind that they never reckon by the year, but always by the Monsoon or half year.

The months are variously divided, but the principle is to recognise four phases of the moon in every month—waxing, waxed, waning, waned—of 10, 10, 5, and 5 days each in the South and of 10, 6, 10, and 4 days each in the North. In the first three phases the days are reckoned consecutively and in the last or uncertain period each day has its name. The detail of the Nicobarese method of reckoning the month will be found in Appendices K and L.

Currency.—Without anywhere using coin, the Nicobarese have from all time been ready and quick-witted traders in their great staple, the cocoanut, using it also as their currency and obtaining for it even important articles of food which they do not produce, their clothing and many articles of daily use.

In order to explain the cocoanut currency of the Nicobarese and its place in civilisation, it is necessary to go briefly into the general question. Barter is the simple exchange of possessions. Currency is the use of a definite article every one possesses and uses as the medium of exchange for all goods between two parties. Money is a conventional article or token, not otherwise of use, used as the medium of exchange. A gives his knife for B's adze, that is barter: A gives 10 pairs of cocoanuts for B's adze and subsequently B gives A 10 pairs of cocoanuts for A's knife, they are using a medium of exchange and cocoanuts are their currency. The cocoanuts here measure the relative value of different articles of use. A gives a coin, in itself of no other use, to B for his adze and B gives A another coin for his knife: they are using a token for their currency, *i.e.*, money. The essence of an article of currency is that it is used for general purposes and also to measure the value of other articles: the essence of an article of money is that it is useless except as a measure of the value of other articles. The Nicobarese have no money; cocoanuts are their currency. They also barter.

As an instance of barter I can give the following:—In 1895 I had to acquire for Government about $8\frac{1}{2}$ acres of cocoanut-covered land from the

villagers of Mus in Car Nicobar for the Agency compound, and I bought them at the people's own valuation as a pure matter of barter for 12 suits of black cloth, 1 piece of red cloth, 6 bags of rice, 20 packets of China tobacco and 12 bottles of Commissariat rum. Valued in coccanuts the price would have been about 10,000 nuts.

As a proof that cocoanuts really are Nicobarese currency: on the 5th April 1896 the people of Mus in Car Nicobar had occasion to buy a large racing canoe from the people of Chowra. It was first valued at 35,000 cocoanuts, but instead of being paid for in actual nuts it was exchanged for a large number of articles, each valued in cocoanuts and mostly actually purchased with cocoanuts from Burmese and other traders. The bargain was finally struck and the following articles were given for the canoe each valued as under: —

Red cloth	5 pieces	at	1,200	each	6,000
Spoons, big	2 pairs	„	1,000	„	2,000
Baskets	6 No.	„	100	„	600
Two-anna pieces	20 „	„	15	„	300
Silver wire	3 sets	„	1,000	„	3,000
Silver rings	10 No.	„	100	„	1,000
White cloth	5 pieces	„	800	„	4,000
Knives	6 No.	„	50	„	300
Spoons and forks	10 pairs	„	500	„	5,000
Pigs	10 No.	„	400	„	4,000
Fowls	3 „	„	20	„	60
Beads	a quantity	„	500	...	500
Chisels	10 No.	„	50	each	500
Dahs, large	6 „	„	200	„	1,200
„ small	6 „	„	100	„	600
Fish hooks	12 „	„	20	„	240
Fishing line	3 „	„	50	„	150
Rupees	12 „	„	50	„	600
Axes	6 „	„	400	„	2,400
Carpenters' axes	6 „	„	200	„	1,200
Iron spikes, large	6 „	„	100	„	600
„ „ small	6 „	„	50	„	300
Sundry small articles		„	450	...	450
					35,000

APPENDIX A.

DAMPIER'S ACCOUNT OF THE NICOBARS, 1688.

We were now directing our course towards the Nicobar Islands, intending there to clean the ship's bottom, in order to make her sail well.

The 4th day in the evening, we had sight of one of the Nicobar Islands. The southernmost of them lies about 40 leagues N.-N.-W. from the N.-W. end of the Island Sumatra. This most southerly of them [Great Nicobar] is Nicobar itself, but all the cluster of islands lying south of the Andaman Islands, are called by our seamen the Nicobar Islands.

The inhabitants of these islands have no certain converse with any nation; but as ships pass by them, they will come aboard in their proes, and offer their commodities to sale, never enquiring of what nation they are; for all white people are alike to them. Their chiefest commodities are ambergrease and fruits.

Ambergrease is often found by the native Indians of these islands, who know it very well: as also know how to cheat ignorant strangers with a certain mixture like it. Several of our men bought such of them for a small purchase. Captain Weldon also about this time touched at some of these islands, to the north of the island where we lay: and I saw a great deal of such ambergrease, that one of his men bought there; but it was not good, having no smell at all. Yet I saw some there very good and fragrant.

At that island where Captain Weldon was [Camorta], there were two Fryers sent thither to convert the Indians. One of them came away with Captain Weldon, the other remained there still. He that came away with Captain Weldon gave a very good character of the inhabitants of that island, *viz.*, that they were very honest, civil, harmless people: That they were not addicted to quarrelling, theft, or murder; that they did marry, or at least live as man and wife, one man with one woman, never changing till death made the separation: That they were punctual and honest in performing their bargains: And that they were inclined to receive the Christian religion. This relation I had afterwards from the mouth of a priest at Tonqueen, who told me, that he received this information by a letter from the Fryer that Captain Weldon brought away from thence. But to proceed.

The 5th day of May we ran down on the west side of the island Nicobar, properly so called, and anchored at the N.-W. end of it, in a small bay, in 8 fathom water, not half mile from the shore [Pryce Channel]. The body of this island is in 7d. 30m. North Lat. It is about 12 leagues long, and three or four broad. The south end of it is pretty high, with steep cliffs against the sea: The rest of the island is low, flat and even. The mold of it is black, and deep; and it is very well watered with small running streams. It produceth abundance of tall trees, fit for any uses: For the whole bulk of it seems to be but one entire grove. But that which adds most to its beauty off at sea are the many spots of cocoanut trees which grow round it in every small bay. The bays are half a mile, or a mile long, more or less; and these bays are intercepted, or divided from each other, with as many little rocky points of woodland.

As the cocoanut trees do thus grow in groves, fronting to the sea, in the bays, so there is another sort of fruit tree in the bays bordering on the back side of the Coco trees farther from the sea. It is called by the natives a melory tree [*pandanus*]. This tree is as big as our large apple trees, and as high. It hath a blackish rind, and a pretty broad leaf. The fruit is as big as the bread fruit at Guam, or a large penny loaf. It is shaped like a pear, and hath a pretty tough smooth rind, of a light green colour. The inside of the fruit is in substance much like an apple: but full of small strings, as big as a brown thread. I never did see of these trees anywhere but here.

The natives of this island are tall, well-limb'd men: Pretty long visaged, with black eyes; their noses middle proportioned and the whole symetry of their faces agreeing very well. Their hair is black and lank, and their skins of a dark copper colour. The women have no hair on their eyebrows. I do believe it is pluckt up by the roots; for the men had hair growing on their eyebrows, as other people.

The men go all naked save only a long narrow piece of cloath or sash, which going round their wastes, and thence down between their thighs, is brought up behind, and tuckt in at that part which goes about the waste. The women have a kind of a short petticoat reaching from their waste to their knees.

Their language was different from any that I had ever heard before; yet they had some few Malayan words, and some of them had a word or two of Portuguese: Which probably they might learn aboard of their ships, passing by this place: For when these men see a sail, they do presently go aboard of them in their canoes. I did not perceive any form of religion that they had: They had neither temple, nor idol, nor any manner of outward veneration to any deity, that I did see.

They inhabit all round the island by the seaside, in the bays; their being four or five houses, more or less in each bay. Their houses are built on posts, as the Mindanaians are. They are small, low, and of a square form. There is but one room in each house, and this room is about eight foot from the ground: And from thence the roof is raised about eight foot

higher. But instead of a sharp ridge, the top is exceeding neatly arched with small rafters about the bigness of a man's arm, bent round like a half moon, and very curiously thatched with Palmeto leaves.

They live under no Government that I could perceive, for they seem to be equal, without any distinction; every man ruling in his own house. Their plantations are only those Co-co-Nut trees which grow by the sea-side; there being no cleared land farther in on the island: For I observed that when past the fruit trees, there were no paths to be seen going into the woods. The greatest use which they make of their Coco-trees, is to draw toddy from them, of which they are very fond.

The melory trees seem to grow wild: They have great earthen pots to boil the melory fruit in, which will hold 12 or 14 gallons. These pots they fill with the fruit, and putting in a little water, they cover the mouth of the pot with leaves, to keep in the steam, while it boils. When the fruit is soft, they peel off the rind, and scrape the pulp from the strings with a flat stick made like a knife; and then make it up in great lumps, as big as a Holland cheese; and then it will keep six or seven days. It looks yellow, and tastes well, and is their chiefest food: For they have no yams, potatoes and rice nor plantains (except a very few); yet they have a few small hogs, and a very few cocks and hens like ours. The men employ themselves in fishing; but I did not see much fish that they got: Every house hath at least two or three canoas belonging to it, which they draw up ashore.

The canoas that they go afishing in, are sharp at both ends; and both the sides and the bottom are very thin and smooth. They are shaped somewhat like the proes at Guam, with one side flattish, and the other with a pretty big belly: and they have small slight outlagers on one side. Being thus thin and light they are better managed with oars than with sails; yet they sail well enough, and are steered with a paddle. There commonly go twenty or thirty men in one of these canoas, and seldom fewer than nine or ten. Their oars are short, and they do not paddle, but row with them, as we do. The benches they fit on when they row, are made of split bamboos, laid across, and so near together, that they look like a deck. The bambo's lie moveable; so that when any go in to row they take up a bambo in the place where they would sit, and lay it by to make room for their legs. The canoas of those of the rest of these islands were like those of Nicobar: And probably they were alike in other things; for we saw no difference at all in the natives of them, who came hither while we were here.

But to proceed with our affairs: It was, as I said before the 5th day of May about ten in the morning, when we anchored at this island: Captain Read immediately ordered his men to heel the Ship, in order to clean her; which was done this day and the next. All the water vessels were fill'd, they intending to go to sea at night: For the winds being yet at N.-N. E. the Captain was in hopes to get over to Cape Comorin before the wind shifted. Otherwise it would have been somewhat difficult for him to get thither; because the westerly monsoon was now at hand.

I thought now was my time to make my escape, by getting leave, if possible, to stay here; for it seemed not very feazable to do it by stealth; and I had no reason to despair of getting leave: this being a place where my stay could, probably, do our Crew no harm, should I design it. Indeed one reason that put me on the thoughts of staying at this particular place, besides the present opportunity of leaving Captain Read which I did always intend to do as soon as I could, was, that I had here also a prospect of advancing a profitable trade for Ambergrease with these people, and of gaining a considerable fortune to my self: for in a short time I might have learned their language, and by accustoming myself to row with them in the Proes or Canoas, especially by conforming myself to their customs and manners of living, I should have seen how they got their Ambergrease, and have known what quantities they get, and the time of the year when most is found. And then afterwards I thought it would be easy for me to have transported myself from thence, either in some ship that pass this way, whether English, Dutch or Portuguese, or else to have gotten some of the young men of the island to have gone with me in one of their canoes to Achin; and there to have furnished myself with such commodities, as I found most coveted by them; and therewith, at my return, to have bought their Ambergrease.

I had, till this time, made no open show of going shore here: but now, the water being filled, and the ship in a readiness to sail, I desired Captain Read to let me ashore on this island. He, supposing that I could not go ashore in a place less frequented by ships than this, gave me leave; which probably he would have refused to have done, if he thought I should have gotten from hence in any short time; for fear of my giving an account of him to the English or Dutch. I soon got up my chest and bedding, and immediately got some to row me ashore; for fear lest his mind should change again.

The canoa that brought me ashore, landed me on a small sandy bay, where there were two houses, but no person in them. For the inhabitants were removed to some other house, probably, for fear of us; because the ship was close by: and yet both men and women came aboard the ship without any sign of fear. When our ship's canoa was going aboard again, they met the owner of the houses coming ashore in his boat. He made great many signs to them to fetch me off again: but they would not understand him. Then he came to me and offered his boat to carry me off: but I refused it. Then he made signs for me to go up into the house and, according as I did understand him by his signs, and a few Malayan words that he used, he intimated that somewhat would come out of the woods in the night, when I was asleep, and kill me, meaning probably some wild beast. Then I carried my chest and cloaths up into the house.

I had not been ashore an hour before Captain Teat and one John Damarell, with three or four armed men more came to fetch me aboard again. They need not have sent an armed

Posse for me; for had they but sent the cabbin-boy ashore for me, I would not have denied going aboard. For though I could have hid myself in the woods, yet then they would have abused or have killed some of the natives, purposely to incense them against me. I told them therefore, that I was ready to go with them, and went aboard with all my things.

When I came aboard I found the ship in an up-roar: for there were three men more, who taking courage by my example, desired leave also to accompany me. One of them was the Surgeon Mr. Coppenger, the other were Mr. Robert Hall, and one named Ambrose; I have forgot his sir-name. These men had always harboured the same designs as I had. The two left were not much opposed; but Captain Read and his crew would not part with the Surgeon. At last the Surgeon leapt into the Canoa, and taking up my gun swore he would go ashore, and that if any man did oppose it, he would shoot him: but John Oliver, who was then Quarter-master, leapt into the canoa, taking hold of him, took away the gun, and with the help of two or three more, they dragged him again into the ship.

Then Mr. Hall, and Ambrose, and I were again set ashore; and one of the men that rowed us ashore stole an axe, and gave it to us, knowing it was a good commodity with the Indians. It was now dark, therefore we lighted a candle, and I being the oldest stander in our new country, conducted them into one of the houses, where we did presently hang up our hammocks. We had scarce done this, before the canoa came ashore again, and brought the four Malaya men belonging to Achin, (which we took in the Proe we took off of Sumatra) and the Portuguese that came to our ship out of the Siam Jonk at Pulo Condore: The crew having no occasion for these, being leaving the Malayan parts where the Portuguese spark served as an interpreter; and not fearing now that the Achinese could be serviceable to us in bringing us over to their country, 40 Leagues off: nor imagining that we durst make such an attempt; as indeed it was a bold one. Now we were men enough to defend ourselves against the natives of this Island, if they should prove our enemies: though if none of these men had come ashore to me, I should not have feared any danger. Nay, perhaps less, because I should have been cautious of giving any offence to the natives: and I am of the opinion that there are no people in the world so barbarous as to kill a single person that falls accidentally into their hands or comes to live among them; except they have before been injured by some outrage, or violence committed against them. Yet even then, or afterwards, if a man could but preserve his life from their first rage, and come to treat with them (which is the hardest thing, because their way is usually to abscond, and rushing suddenly upon their enemy to kill him at unawares) one might, by some slight, insinuate ones self into their favours again. Especially by shewing some toy or knack, that they did never see before; which any European, that has seen the world, might soon contrive to amuse them withal: as might be done, generally even with a little fire struck with a flint and steel. As for the common opinion of Anthropophagi, or man-eaters, I did never meet with any such people: all nations or families in the world, that I have seen or heard of, having some sort of food to live on, either fruit, grain, pulse, or roots; which grow naturally, or else planted by them; if not fish, and land-animals besides; (yea, even the people of New-Holland, had fish amidst all their Penury) would scarce kill a man purposely to eat him. I know not what barbarous customs may formerly have been in the world: and to sacrifice their enemies to their gods is a thing hath been much talked of with relation to the savages of America. I am a stranger to that also, if it be, or have been customary in any nation there; and yet, if they sacrifice their enemies, it is not necessary they should eat them too. After all, I will not be peremptory in the negative, but I speak as to the compass of my own knowledge and know some of these cannibal stories to be false, and many of them have been disproved since I first went to the West-Indies. At that time how barbarous were the poor Florida Indians accounted, which now we find to be civil enough? What strange stories have we heard of the Indians, whose Islands were called the Isles of Cannibals? Yet we find that they do trade very civilly with the French and Spaniards; and have done so with us. I do own that they have formerly endeavoured to destroy our plantations at Barbadoes, and have since hindered us from settling the island Santa Lucia, by destroying two or three Colonies successively of those that were settled there; and even the island Tabogo has been often annoyed and ravaged by them, when settled by the Dutch, and still lies waste (though a delicate fruitful island) as being too near the Caribbees on the continent, who visit it every year. But this was to preserve their own right, by endeavouring to keep out any that would settle themselves on those islands where they had planted themselves; yet, even these people would not hurt a single Person, as I have been told by some that have been prisoners among them. I could instance also in the Indians of Bocca Toro and Bocca Drago and many other places where do they live, as the Spaniards call it wild and salvage; yet there they have been familiar with Privateers, but by abuses have withdrawn their friendship again. As for these Nicobar people, I found them affable enough, and therefore did not fear them: but I did not much care whether I had gotten any more company or no.

But, however, I was very well satisfied, and the rather because we were now men enough to row ourselves over to the Island Sumatra; and accordingly we presently consulted how to purchase a canoa of the natives.

It was a fine clear moon-light night, in which we were left ashore. Therefore we walked on the Sandy Bay, to watch when the ship would weigh and be gone, not thinking ourselves secure in our new gotten liberty till then. About 11 or 12 o'clock we saw her under sail, and then we returned to our chamber, and so to sleep. This was the 6th of May.

The next morning betimes our landlord, with four or five of his friends, came to see his new guests, and was somewhat surprised to see so many of us, for he knew of no more but myself. Yet he seemed to be very well pleased, and entertained us with a large calabash of

toddy, which he brought with him. Before he went away again (for wheresoever we came, they left their houses to us, but whether out of fear or superstition, I know not,) we bought a canoa of him for an axe, and we did presently put our chests and cloaths in it, designing to go to the south end of the island, and lie there till the monsoon shifted, which we expected every day.

When our things were stowed away, we with the Achinese entered with joy into our new Frigot, and launched off from the shore. We were no sooner off, but our canoa overset, bottom upwards. We preserved our lives well enough by swimming, and dragged also our chests and cloaths ashore; but all our things were wet. I had nothing of value but my journal, and some drafts of land, of my own taking, which I much prized, and which I had hitherto carefully preserved. Mr. Hall had also such another cargo of books and drafts, which were now like to perish. But we presently opened our chests and took out our books, which, with much ado, we did afterwards dry; but some of our drafts that lay loose in our chests were spoiled. We lay here afterwards three days, making great fires to dry our books. The Achinese in the meantime fixt our canoa with outlagers on each side; and they also cut a good mast for her, and made a substantial sail with mats.

The canoa being now very well fixt, and our books and cloaths dry, we launched out the second time, and rowed towards the east side of the island, leaving many islands to the north of us. The Indians of the island accompanied us with 8 or 10 canoas against our desire; for we thought that these men would make provision dearer at that side of the island we were going to, by giving an account what rates we gave for it at the place from whence we came, which was owing to the ship's being there; for the ship's crew were not so thirsty in bargaining (as they seldom are) as single persons, or a few men might be apt to be, who would keep to one bargain. Therefore to hinder them from going with us, Mr. Hall feared one Canoa's crew, by firing a shot over them. They all leaped overboard and cried out, but seeing us row away, they got into their canoa again and came after us.

The firing of that gun made all the inhabitants of the island to be our enemies. For presently after this we put ashore, at a bay where were four Houses, and a great many Canoas; but they all went away and came near us no more, for several days. We had then a great loaf of melory, which was our constant food; and if we had a mind to coco-nuts, or toddy, our Malayans of Achin would climb the trees, and fetch as many nuts as we would have, and a good pot of toddy every morning. Thus we lived till our melory was almost spent; being still in hopes that the natives would come to us, and fell it as they had formerly done. But they came not to us; nay, they opposed us wherever we came, and often shaking their lances at us, made all the show of hatred that they could invent.

At last, when we saw that they stood in opposition to us, we resolved to use force to get some of their food, if we could not get it other ways. With this resolution, we went in our canoa to a small bay, on the north part of the island; because it was smooth water there, and good landing, but on the other side, the wind being yet on that quarter, we could not land without jeopardy of oversetting our canoa, and wetting our arms, and then we must have lain at the mercy of our enemies who stood two or three hundred men in every bay, where they saw us coming, to keep us off.

When we set out, we rowed directly to the north end, and presently were followed by 7 or 8 of their canoas. They keeping at a distance, rowed away faster than we did, and got to the bay before us: And there, with about 20 more Canoas, full of men, they all landed, and stood to hinder us from landing. But we rowed in, within a hundred yards of them: then we lay still, and I took my gun, and presented at them: at which they all fell down flat on the ground. But I turned myself about, and to shew that we did not intend to harm them, I fired my gun off to sea, so that they might see the shot graze on the water. As soon as my gun was loaded again, we rowed gently in; at which some of them withdrew. The rest standing up, did still cut and hew the air, making signs of their hatred; till I once more frighted them with my gun, and discharged it as before. Then more of them sneaked away, leaving only five or six men on the bay. Then we rowed in again, and Mr. Hall, taking his sword in his hand, leapt ashore; and I stood ready with my gun to fire at the Indians, if they had injured him: but they did not stir, till he came to them, and saluted them.

He shook them by the hand, and by such signs of friendship as he made, the peace was concluded, ratified, and confirmed by all that were present: and others that were gone, were again called back, and they all very joyfully accepted of a peace. This became universal over all the island, to the great joy of the inhabitants. There was no ringing of bells, nor bonfires made, for that is not the custom here; but gladness appeared in their countenances, for now they could go out and fish again, without fear of being taken. This peace was not more welcome to them than to us; for now the inhabitants brought their melory again to us; which we bought for old rags and small stripes of cloath, about as broad as the palm of one's hand. I did not see above five or six hens, for they have but few on the island. At some places we saw some small hogs, which we could have bought of them reasonably; but we would not offend our Achinese friends, who were mahometans.

We stayed here two or three days, and then rowed toward the south end of the island, keeping on the east side, and we were kindly received by the natives, whereever we came. When we arrived at the south end of the island, we fitted ourselves with melory and water. We bought three or four loaves of melory, and about twelve large coco-nut-shells, that had all the kernel taken out, yet were preserved whole, except only a small hole at one end; and all these held for us about three gallons and a half of water. We bought also two or three bambo's, that held about four or five gallons more: this was our sea-store.

We now designed to go to Achin, a town on the N. W. end of the island Sumatra, distant from hence about forty leagues, bearing south south-east. We only waited for the western monsoon, which we had expected a great while, and now it seemed to be at hand; for the clouds began to hang their heads to the eastward, and at last moved gently that way; and though the wind was still at east, yet this was an infallible sign that the western monsoon was nigh.

APPENDIX B.

THE OSSUARY FEAST OF CAR NICOBAR.

24th September, 1897.—The people of Chukchuacha came to invite the people of Mûs for the feast *kana hâun,* which is to take place during the full moon of the current month.

26th September.—The people of Chukchuacha sent men to all the villages to inform the people that the feast of *kana hâun* would take place in a week's time. This is the final invitation, which they call *Mi-nga-la.*

Among the festivals of the Car Nicobarese, *kana hâun* or exhuming the bones of the dead is the most important. Literally it is called *kana-hâun* = eat pig, *lit.*, "when the remains of the dead are disinterred." It is a very laborious and costly festival, commemorated with much ceremony commingled with joy and sorrow. The festival is observed every third or fourth year. All the islanders cannot observe it at one limited period, nor can the people of one whole village do so conjointly with another. If a few families of a village commemorate the feast during one year, other families take up the feast at some other convenient year, that is to say, when their stores are in abundance. They also remain until the bones of their deceased are free from flesh. I witnessed this festival several times in different villages conducted with equal splendour and joy, but with a slight difference in each village. It consists of a course of ceremonies beginning from one new moon to another, in the middle of which, *viz.*, at full moon, the pigs are slaughtered and eaten.

The festival commences as follows:—

Proposal.—About ten months prior to the feast, all the people of the village consult together and fix the festival month, and inform the rest of the villagers and obtain their promise to help in the matter.

Invitation.—They then send messengers to give notice to all the villagers of the island about their proposals and send preliminary invitations. There are two kinds of invitations, *viz.*, general and special. The general invitation is given to their friends and relatives, that they may join them in the feast and help in other respects. The special invitation is that of one family among the commemorators of the feast inviting the whole people of another village, that they may give a performance in their house on the occasion. If ten families of a village commemorate the feast, they would invite the people of ten distant villages for the purpose, while those of three adjacent villages will be invited generally.

Ñâ-Kopâh.—Their first duty after sending out invitations is to make a *ñâ-kopâh* (food for the burial ground). A few well-carved wooden poles, about 50 to 60 feet in height, with cross battens, are prepared and fixed in the ground at Elpanam as well as in the interior of the village in front of the houses of the commemorators. On these they hang up varieties of yams, guyans, dabs, bundles of betel leaf, bunches of cocoanuts, areca nuts, pandanus fruit, plantains, cheroots and other eatables to which they are accustomed, altogether about fifty kinds. Below the post, they keep teak-wood boxes containing new clothes and jewels, bottles of toddy and earthen pots from Chowra, and fence them carefully. The pole with all the contents from top to bottom is decorated nicely with flags and other toys, and looks like an Indian car. This is the labour of about twenty or thirty men for about three months. From the day this *ñâ-kopâh* is fixed in the ground they are restricted from killing pigs in their village.

On these occasions they take great care in repairing their cooking huts and erecting new ones and in making new roads and paths, which they do up to the limits of their village in each direction. The open ground at Elpanam and the graveyard are also cleared and kept tidy. In the meanwhile they try to procure sufficient quantities of provisions for the festival.

A month before the festival they prepare some more *ñâ-kopâh* similar to the one mentioned above, but these will be fixed in the ground just a week before the feast with fresh eatables hanging on them. After fixing this pole they send final notice to the guests in all villages.

Besides this, a week before the festival day, they prepare a *kuimetîla* (headstone of a tomb). This is another laborious and tiresome work, made as follows: a well-carved round log of wood, about 3 feet long and 1 foot in bulk, with four holes on the top, is prepared and kept in readiness. At the approach of the feast a lot of men and women join together and adorn it by rolling round the log a piece of white calico and fringe it with red or blue broad-cloth, tearing them into pieces and folding it like ribbon. Four large soup ladles are fastened to the holes of the log and in the middle of it, a cross-shaped iron pike, about 6 feet in length, called *merâhta,* adorned with a lot of spoons, forks and soup ladles of all sizes. It also contains fancy weapons, toys, dolls, and other curiosities, which glitter much on the iron rod. Some keep this in the newly-erected cook-house, and others in the open yard. They particularly take the guests and friends to see this in order to show they are wealthy. The same iron rod is used by them in the rainy season as a magnet to prevent lightning and thunder.

The men then prepare two or three long temporary bamboo cages with separate enclosures for each pig, so that a dozen pigs may be enclosed in each cage. One is made underneath the house, and the rest in front of the house.

Some people meantime decorate the canoes and fill them with all sorts of eatables and curiosities, and keep them in front of the houses.

They obtain the help of their friends in the nearest villages, who, neglecting their own affairs, willingly come and help them in the work, for which purpose they even bring with them food sufficient for their own requirements till the close of the festival.

After all these preparations are over, then commences the preliminary ceremony called *wani-patti* (house decorations), which takes place a day before the festival. This is done as follows :—The interior of the house is decorated profusely with tender cocoanut leaves, guyan plants and flags. Bunches of tender cocoanuts, areca-nuts and plantains are tied all around the posts of the house outside, that the guests may take at their leisure. Several pieces of chintz, red cloth and calico are hung up tied to a string in the interior of the house as well as underneath the house. The *merâhta* (iron pike) and the adorned canoes are placed on either side of the *ñâ-kopâh*. The bamboo cages intended for pigs are also decorated. When these further arrangements have been made they kill a pig, sprinkle the blood over all the decorations as a sacrifice, and sing and dance around the house for the first time with their general guests.

Then on the festival evening they bring, with songs, a lot of pigs from the piggery in the jungle, and leave them in the cages and dance before them. The pigs that are left in the cage underneath the house are only for exhibition, intended to show the condition of their wealth, and at the same time they are dedicated for a future festival. In the cages outside are left those pigs that are to be slaughtered during the festive season. There is another cage besides these in which they leave those pigs brought to them by their friends as festive gifts.

Kiriam hē-lakhut.—This the second but chief festival. By eight or nine o'clock in the night the village is filled with almost the whole of the islanders,—a group of one village in one house. The special and general guests assemble in gangs in their respective quarters. The men are adorned with new loin cloths of various kinds and colours, a *tâ-chökla* or head ornament and a *tâ-sēha*, a necklace made of silver pieces. The females are adorned with necklaces, ear-rings, bangles made by twisting silver wires on hand and leg, and a string of silver coins as head ornament. They take much pains in cleaning the silver pieces by rubbing them in the sand that they may shine. A pair of Madras red handkerchiefs or two yards of red cloth and two yards of china blue cloth stitched together (both colours distinguishable) are worn by females as an under-garment. Some of them come already adorned from their houses. Others bring all these things with them and adorn themselves on the spot.

The special guests bring with them ten or twelve pigs of moderate size as presents to the party by whom they were invited. Here I have to say that the people, though they are well acquainted with each other, never call them friends. They have a regular agreement about this. Whoever contributes a pig during this festival is their only true friend. Special invitation for any occasion will be given only to this man by turns. The women bring with them baskets filled with prepared food such as boiled yams, rice *ku-wen*, etc., for luncheon, and with which they refresh themselves on that night, together with pork given at the time by the inviting party.

Then they commence to sing and dance by turns. The men give their performance first, and when they are tired the females perform. The former in their dance go through various motions, by sitting, rising, bending and jumping, but the latter only in treading. They practise for this purpose from the time they receive the first notice. The same thing will be seen in the compound of each festival party throughout the night.

Hâwat-ka-ku-hâ-un or *Ku-wan-ka-ku-hâun*.—In the morning, while dancing is still continued, they bring down some strong well-built wooden cages, about 4 feet long and 3½ feet in width and height, some in the shape of a palanquin, and some of a dome-shape like their houses. These cages are gaily decorated with flags, chintz and gilt jewels. On the top of the cage is prepared a wooden terrace with curtains so as to seat two or three men. The cage is fastened on either side by two long substantial bamboos. Some huge, long-tusked boars adorned with jewels are left in these cages (one in each) ; a man, a woman and a boy are seated in the terrace or platform with a quantity of plantains and betel-nut. When everything is ready, new red loincloth with white tassels and *tâchökla* (the head ornament) are supplied to the guests. Then the cages with pigs and the people upon them are carried round from house to house in a procession with singing and dancing; each cage is borne by forty men or women; some of them, who are not able to prepare a cage, substitute long bamboos, tying the legs of the pigs and fastening them across the bamboo. As they are proceeding, betel-nuts and plantains are distributed by the party seated over the cages. The females exhibit more amusement, with the heavy burden over their shoulders. Thus they proceed round the village and return home *viâ* Elpanam.

Now after returning to the original spot they let out these pigs as well as all other pigs, detaining only those that are to be slaughtered on the day for the guests. Then they fell the tremendous *ñâ-kopâh*, by cutting it with an axe 6 feet above the ground, and fence the spot. The canoes and other decorated things also are broken into pieces and the contents thrown in the yards. Only the *merâhta* or iron pike is preserved with its decorations until further orders.

Now comes *yang-hâun*, meaning "in return." A dozen or more pigs of ordinary size will be distributed by the inviting party to the group of performers. They may kill and eat them on the spot or take them away alive to their houses. This is given in place of a festive dinner. The dancing party who receive the above would, according to the number of groups, kill a few of the pigs, cut them into pieces and distribute the flesh to each family of their group. They roast these pieces and eat as much as they like, and bring the remaining portion to their houses. The pigs that were not killed will also be brought to their village, and will be reserved for some public occasion. As a rule, the people who receive the present must be ready to do the same in their turn when the same festival takes place in their village. The returning spectacle of these people, men and women, young and old, each with pieces of roasted pork, either fastened to long sticks or strings, or in baskets, affords more amusement. The general guests, that is to say of the nearest village, will wait there till the close of the feast to help the party, and to give a

performance every night. They will take their share of food with the commemorators. Th word *yang-hava* is a corruption. The proper word, as far as I was able to ascertain, is *yang-hâun*, or the big boar ; because this creature was dedicated for the purpose, and they look upon it as a sacred creature and offer it as a sacrifice in token of the head of the house who died some years ago.

Again, at night they resume the performance with the help of the general guests, and on the following morning they slaughter the big pigs which were carried in procession. It is the custom for these people to wrestle with the pigs before slaughtering them. They then cut them into long pieces, one of which is suspended at the entrance of their houses, as an offering for the devil, and it is allowed to remain there till the next festival. Some pieces will be distributed to their friends and relatives. Of the remaining portion of the pork, they will separate the fatty part and prepare ghee from it by pounding it in a wooden mortar and boiling it in an earthen vessel. This ghee is preserved in cocoanut shells and used in all their meals like butter. They also present a few shells of this ghee to those of their friends who have assisted them. This portion of the ceremony is called *wana-ka-kūa*.

[Elsewhere Mr. Solomon says, "This day is called by the people *kiriam-wana-ka-kūa* (dance for making lard)."]

The above festival is observed for four or five days. Then commences the ceremony of *kisu-ta-el-patti*. On this occasion, they remove all the decorations of the house and dance and sing inside. This is done in order to purify the house.

Then commences the ceremony of *tanang-la-patti*. During this day, the people engage themselves in covering the houses and huts at Elpanam with green cocoanut palms, to prevent pollution of the dried bones. They take their supper at the Elpanam and dance there all night.

Then commences *anul-la-kopâh* or *ul-la-kopâh*, digging the graves,—elsewhere *kiriam anul-la-kopâh*, dance for digging graveyards. On the evening of this day all the people assemble at Elpanam. The females and children and others stand far off from the graveyard, one or two adults of the commemorators of each house will dig the grave, remove the bones, and throw them in an adjoining bush, called *tang-ngē-kopâh*. But they replace in the grave the skulls of worthy people or heads of families ; then they fill the grave with earth, and place over it the new *kui-metīla* (head-stones). They also kill some young pigs and fowls, and sprinkle the blood over the bones before covering them with earth. The men who dig the grave are called *ta-kuwīa*, which means polluted. These *ta-kuwīa* will then take a bath in the sea and stay the night in the house of pollution. They will take their supper again at Elpanam and dance all night there. This is called *kiriam hanāla*.

Two or three days after this, they remove the cocoanut palm coverings from the house at Elpanam, and give another performance. This is called *kiriam-nga-rit-droi-ta-okka*. In the morning some sports and a little wrestling will take place.

One or two days after, they invite some of the Mâfais of the adjacent villages to give a performance. A grand treat and presents will be given to them. This is called *afai tapôya*, meaning grand *mafai* dance. When this is done they will challenge some other villagers to a boat race, and will have a performance and a treat for that purpose. With this ends the festival of *kana hâun*.

When everything is over they carefully gather all the tusks or jaw bones of the pigs that have been killed in each house during the festive season, fasten them to a long string, and hang them up in the public houses at Elpanam for general exhibition. This is done in order to make a comparison as to the grandeur of the ceremony, and the past and present condition of wealth. The festival, however, impoverishes many of them for some years. Some, however, continue to purchase things from merchants, but being unable to supply them with cocoanuts, hide themselves in the jungle till the departure of the traders from the island.

7th February, 1900.—The people of Mus, having completed their feast of *kana hâun*, for which they had been labouring so hard during the last three months, have now to assist the people of Lapati, who intend to commemorate the same feast next week ; they all consequently go to Lapati to help friends, and when that feast is over, the people of Chukchuacha and Arong will in turn follow suit. Thus they have endless work at this season.

20th February, 1900.—This evening I went to the Elpanam at Lapati with some Nicobarese friends in order to witness the ceremony of *Anūla* or *Ūlla Kopâh* (digging grave). It is an interesting sight. The men who were engaged in digging the grave wore white loin-cloths and the women white under-garments, and they are called *Takkuwi* (polluted). The graveyard was screened thickly by cocoanut leaves.

All the big houses at the Elpanam and the cooking huts in the village were also thickly covered so that no breeze could penetrate. Palms resembling walls, and four temporary huts were erected in each corner that the *takkuwi* might take their refreshment. Several pieces of white calico and turkey-red cloths were kept in these houses for packing the bones. The graves that are not to be dug were marked by a white curtain, and were neatly decorated. While digging the grave, one of the *tamiluanas* stands at the head and keeps fanning with a bunch of "devil-driving" leaves. Another man keeps ready with him a spathe (*chamom*) and a piece of white calico. The grave-digger first takes out the skull, which is wiped by the hand and carefully rolled in the white calico and kept in the spathe ; all other bones, from neck to feet, are then taken piece by piece and kept in the same *chamom*, which is carried and placed over big yams that are scattered below the dead-house for the purpose. They then wrap the spathe containing the bones, binding it with red and white calico. About fifty graves were dug and the bones were similarly treated, about five or six bundles of which were re-interred in the same

grave ; other bundles were taken away to a place called *Kufentĕnga* or *Kokenwalnga-Kopâh*, where they open the bundles and throw the bones and tear the cloth into rags. After this the grave-diggers come to the sea and wash their hands and legs while a few only bathe. Thus ends this ceremony.

Ūlla Kopâh was to be celebrated at the Elpanam during the night by the people of Mûs and Kenmai, for which purpose the Elpanam and the pathways were illuminated.

APPENDIX C.

MR. DE ROEPSTORFF'S TALE OF SHOĀN.

The subject of this story is not the outcome of the native imagination—that is a faculty of the mind which has been but little developed amongst this people. Shoān is a story which was told some time ago to an interested audience of Nicobarese by the author [de Roepstorff]. Anon it was adopted as their own, and soon became added to the recognized store of Nicobarese stories to be told by father to son to all succeeding generations.

It turned up lately, being re-told to the author of it, Mr. de Roepstorff, and it is here produced in the shape which it had by that time attained.

Shoān, a Nicobar tale.

Come all, Nicobarese and foreigners, old and young, men and women, boys and girls, youths and maidens, and listen to a story.

There was formerly a man by the name of Arang, whose wife had borne (him) three sons and three daughters.

He made himself a nice house, and possessed much property.

One day he went out on the sea with his eldest son, called Shoān. They wanted to fish with hook and line.

Strong wind got up and heavy sea sprung up.

Then it happened that one of the outriggers of the canoe broke, and both sank into the sea. Arang was drowned, but the boy crawled up on the back of the canoe and cried :

"What shall I do, my father is dead, what am I to do!"

"Whish! it is the whale arriving."

"Why are you crying, child?"

"Oh my father is dead, I cannot survive, how shall I get home (*lit.*, there is no road), what *am* I to do, my father is dead!"

"Sit down on my back, I know the road," said the whale. "Oh no, I will not!" said the boy. "I am afraid, I do not know the road, as my father is dead."

But after a while Shoān did sit down on the back of the whale. Whish—off they were, quickly, swiftly.

The whale is a chief of the sea. At the sight of him all got afraid.

The flying fish flew in all directions, the turtle dived down suddenly, the shark sank down (below) his fin, the sea snake dug himself into the sand, the *ilu* danced along the sea, the *dugong* hugged her young one, the dolphins fled, for they were afraid of the whale.

Thus (sped) the two. Bye and bye they arrived at the country of the whale. It was a domed big stone house. The walls were of red coral, the steps were made of *tridachna*. In the house they saw the daughter of the whale, whose name was Giri.

"Do you like this boy?" said the whale.

"All right, let him stay," said Giri.

"Do you like to stay, Shoān?"

"I am willing to stay here."

Then Shoān became the servant of Giri.

Giri's face was like that of a woman, below she was shaped with a fishtail, her breast was the colour of mother-of-pearl, her back like gold; her eyes were like stars, her hair like seaweed Said Giri—"What work do you know?"

"I can collect cocoanuts in the jungle."

"Never mind, we have no cocoanuts, but what other work do you know?"

"I can make boats."

"We do not want boats, (but) what other work (do you know)?"

"I know how to spear fish."

"Don't! you must not do it, (for) we love the fish; my father is a chief among the fish. Never mind; comb my hair."

Shoān remained, he combed her hair; they (used to) joke together, and they married.

Said Shoān—"How is it, wife, that you do not possess a looking-glass, although your face is so nice."

"I want a looking-glass, look out for one."

"In my parent's house in the village there is one looking glass, (but) I do not know the road."

"Never mind, I know the road; sit on my back and I will bring you near the land."

"I cannot walk in your country, but do, (I pray you,) return quickly."

"Certainly, wife, you (had better) stop near the edge of the coral reef on this big stone, I will return quickly."

Then Shoān returned to his village. He came to (*lit.*, saw) his father's house.

"Who is there?" (said his mother).

"It is I, Shoān."

"No (you are not); Shoān died with his father on the sea."

"Look at my face; I am Shoān, your son."

He came up into the house. When they heard (about it) all the people (of the village) came. They asked many questions and Shoān answered. He told the story about the whale, and the story of his marriage with Giri. The people laughed and said he was telling lies. Shoān got sorry and angry, and he ran away with the looking-glass. The people went after him and speared him, and thus died Shoān.

Giri stops in the sea near the coral banks, and she sings and calls. In the night when the moon is high, fishermen hear a sound like singing and the crying of a woman. They ask other people (about it) and wonder, for they do not know (about) Giri. Giri will not return alone, (that is why) she sings and she calls out: "Come (back) Shoān, come (back) Shoān."

APPENDIX D.

Authentic cases of "Devil" Murders in the Nicobars.

Date of murder.	Name of murderer and accomplices with residences.	Name of murdered persons.	Reasons for murder.	Mode of murder.	With or without previous consultation.
About May, 1883	1. James Snook *alias* Tomaku of Mus village, Car Nicobar. 2. Young Gwynne *alias* Oct-mo of Mus 3. Stephenson *alias* Romluen of Kinmai village. 4. Mr. Pell *alias* Lokhari of Mus village.	1. Taparawng 2. Female Ahurki 3. Female Tamal-hattan 4. Female Kom-chik 5. Female Dran-Atsal	Spirit possession and causing sickness.	Stunned by a club, strangled, and arms and legs dislocated. Bodies taken out to sea and sunk with stones.	With previous consultation.
May, 1883	Fameli	Taparawang	Ditto	Ditto ditto	Ditto.
March, 1884	1. Mr. Pell *alias* Lokhari. 2. Taing-taí 3. Ramala 4. Legh (Mus village, Car Nicobar.)	Kulal of Mus village	Spirit possession	Strangled and legs and hands dislocated. Body taken out to sea and sunk with stones.	Ditto.
September, 1885	Ala Sheam of Chowra	*Menluana* Shumeong	Ditto	Clubbed. Body taken out to sea and sunk.	Without previous consultation.
December, 1885	Harong of Kemios village, Car Nicobar, with the assistance of one Sakal.	Hangawez of Kemios village.	Ditto	Strangled and upper and lower limbs dislocated. Body taken out to sea and sunk with stones.	With previous consultation.
December, 1889	1. Hat Pali 2. Ashiali 3. Hinoila (Camorta)	Female Hin Young We	Practice of witchcraft	Clubbed and speared. Body buried on the beach	Ditto.
October, 1890	1. Chuk-chon 2. Irokte (of Kakana village, Car Nicobar.) 3. Maichich 4. Tinbelly 5. Song-o-soe (of Kemios village, Car Nicobar.)	Kara of Kakana village	Dangerous to society	Clubbed, strangled, and upper and lower limbs dislocated. Body buried.	Ditto.
October, 1890	Tateo, Kemios village, Car Nicobar	Ditto	Ditto	Ditto ditto	Ditto.
December, 1890	1. Sa-mya 2. Isoe-chok 3. Arotrum 4. Arhana 5. Hikka (Tamalu village, Car Nicobar.)	Cham	Ditto	Dislocated first arms and legs and then strangled victim. Body taken out to sea and sunk.	Ditto.
August, 1892	1. Talung-ku 2. Sub-ap-nga 3. Juan 4. Honnapa 5. Via 6. Lalku (Tamalu village, Car Nicobar.)	1. Sa-huit-kaw 2. Female Tretmu 3. Female child of above	Practising witchcraft	Dislocated first arms and legs and then strangled victims. Bodies buried at sea.	Ditto.

May, 1894	1. Chuk-komrian 2. Piko-koi 3. Harong	Kemios village, Car Nicobar.	1. Tiubelly	Dangerous to society	Clubbed and then strangled. The arms and calves of the deceased were also cut.	Ditto.
July, 1896	1. Rinangmaren 2. Scarecrow 3. Rinangno 4. Kumati 5. Tafonengsang 6. Chulancha	Perka village, Car Nicobar.	1. Sapuang 2. Omkuu	Theft, incendiarism, and danger to society.	Clubbed and then strangled. Also the arms and legs of the victims were dislocated. Bodies were taken out to sea and buried.	Ditto.
December, 1896	Tankoi of Chowra		*Menluana* Kanmila	A "Doctor" failing to cure.	Clubbed	Without previous consultation.
February, 1900	1. Natla 2. Iskol 3. Na-wi 4. Sundran	Malacca Village, Car Nicobar.	Tekwa	Practice of witchcraft	Victim was first made drunk with toddy and then seized and his arms and legs dislocated and in that state strangled. Body buried on sea-shore.	With previous consultation.
July, 1902	1. Kumati 2. Takaya-ku 3. Ang-ka-sa	Perka village, Car Nicobar.	Tafon	Theft and danger to society	Seized and throttled and the murder completed by strangulation. Body taken out to sea and sunk.	Without previous consultation. The victim accidentally came in the way of the murderers who immediately combined and murdered him.

Deposition of Nicobarese Tondauk alias *"Captain Dixon," resident of Mus Village, Car Nicobar, 4th witness for prosecution in Sessions Case No. 3 of 1884-85.*

"Two years ago (1) Taparawng, and his wife (2) Ahurke, (3) Tamalhattan, a woman, (4) Komchik and Dran Atsal, (5) also women, were killed on the beach at Mus. The first named was killed first in the afternoon and I then ran away to Chokchuacha because I hear they go kill other men. They kill them because they speak (call them) "Devil-man" but I not "savez" (believe) that. I not see. I only hear about it. James Snook told Stephenson to call men to make kill because "Devil-man" many men make die. I do not know about Mr. Pell and Young Gwynne having anything to do with it. The four women were killed the following day about noon all together on the beach. The men of Mus, Kinmai, and Lapate all assembled and assisted. Afterwards they had a feast at which they ate three pigs. Young Gwynne and Mr. Pell helped to kill but did not instigate. I was not present.

"I hear Fameli of Lapate, Stephenson, James Snook, Mr. Pell (not Young Gwynne) Friend of England give order for these people to be killed."

Deposition of Nicobarese Hullo alias *Joe Anderson, (1st witness for prosecution, in Sessions Case No. 7 of 1884-85), resident of Mus Village, Car Nicobar.*

"I was present about 9 months ago when (1) Takaelaich (male), (2) Kinwal (female), (3) Sonaiyu (male), (4) Taseren (female), (5) Lumpan (male) and a child were killed because they were "Devil-men" (*tatlak*)—Nos. 1, 5 and 2 were killed one day and two days after the other three persons were killed.

"I saw the three first named killed by Stevenson, Kulal, the accused and many others at Lapate at noon. They tied their arms behind them and dislocated their shoulders and hips and they passed a piece of wood through their arms and legs which were tied together and carried them to the beach and strangled them with rope made of bark and immediately after took them out to the sea and sank their bodies with stones. Fameli was not there, but his men were there. He was sick that day. I did not see the three others killed, but I heard they were killed two days afterwards.

"I saw Taparawng's corpse being carried from Lapate to Mus by three men and I saw Fameli the accused bury the corpse in the sand.

"I heard that Stevenson and Fameli had killed Taparawng. This was a long time ago—two South West monsoons ago. One year (English) ago."

Examination of accused Car Nicobarese Mr. Pell alias *Lokhare, Mus village, in the Court of the 3rd Assistant Superintendent, in the murder of Kulal, a fellow villager.*

Q. Do you know anything about the deaths of Taparawng, female Ahurke, female Tamalhattan, female Komchik, and female Dran Atsal?

A. I make kill them two years ago.

Q. Who assisted you to do so?

A. All men. Kinmai men, Lapate men, Mus men.

Q. Why did you kill them?

A. Because they were devil-men and made us sick.

Q. Were you sick?

A. Yes. Plenty days, but I did not die. Others died. Four men. (Three men and one woman.)

Q. Did you kill them all at the same time?

A. Yes, about the same. An hour elapsing after each death. Different parties went to each victim. This was at noon.

Q. Did you have any feast or ceremony before you killed them?

A. No, we had no feast before, but we all collected together, and after they were dead, we had a feast, one pig being eaten at Mus, another at Kinmai, and a third at Lapate. This was after three days.

Q. Do you know, what has become of Kulal and his son, Tatamala?

A. Kulal was killed by us, and I killed him a little also. Tatamala ran into the jungle, and I do not know whether his legs and arms were broken or not. This was about a month ago.

Q. Who assisted you to kill Kulal?

A. Lapate men, Mus men, and Kinmai men.

Q. Why did you kill Kulal?

A. Because he was a devil-man and made us sick.

Q. Who pulled the rope round Kulal's neck?

A. Taing-tai, Legh, Ramala and I.

Q Was Tatamala a "devil-man" also?

A. Yes, he was the same as his father.

Q. Who saw Kulal walking under houses at night.

A. I did under my house.

Q. Who else saw him?

A. Everybody saw him.

Deposition of Car Nicobarese Tondauk alias "*Captain Dixon*" *of Mus village, Car Nicobar, 1st witness for prosecution in Sessions Case No. 2 of 1884-85.*

"About two moons ago, five days before the *Nancowry* came with Mr. Man, a man named Kulal was killed at night time by Mr. Pell, Taing-tai, Ramala and Legh. I see myself. Mr. Pell pulled him by hair out of his house and then called the other three, and they strangled him with a rope. Deceased cried out. Plenty men make see and then all ran away afraid. It was about 10 P.M. No one but Mr. Pell instigated this murder. People did not know before it was going to take place, but they came out of their house when Kulal "sing out." I and my wife were at the house of Angwanta, close by Kulal's house. I asked the accused what they were doing. They said "bad man make kill." Then I run away. They broke the deceased's arms at the shoulder and his legs at the hips before they strangled him. Mr. Pell, accused No. 1, stated that witness had stated the truth and the other three accused also declined to cross-examine."

Examination of Harong of Kemios Village, Car Nicobar Island, accused No. 1 in Criminal Case No. 3 of 1885-86 of the Court of the Officer in charge, Nicobar Islands.

Q. What is your answer to the charge that about six months ago you murdered a man belonging to your village, named Hangawez?

A. I admit having done so assisted by Sakal. It was because deceased was a "Devil-man."

Q. State the particulars of the case.

A. It was at Sakal's request I took part in the murder which took place before day-break in the village on the shore at Kemios (Accused points out the spot referred to). We strangled the deceased by means of a thin rope, but did not dislocate any of his joints as has been the custom at similar murders at Mus and elsewhere. We then buried the body in the sand among the bushes close to the village (Accused here points out the spot which is found to be marked by a stake.) No one attempted to interfere with us.

Q. Do you wish to make any further statement?

A. No.

Examination of Accused Harong of Kemios Village, Car Nicobar Islands, in Sessions Case No. 5 of 1885-86.

Q. Why did you help to kill Hangawez?

A. Because he was a *thasse*, a devil (*atlak*) and stole my pigs, fowls, yams, etc.

Q. When did he steal them?

A. He stole a pig of mine on that very day we killed him.

Q. What had that to do with Sakal?

A. I called him to help me as he was a friend of mine.

Q. Did you consult any other people about killing Hangawez?

A. No. No one else knew that we were going to kill him.

Q. Where did you catch him?

A. We caught him in his house, where he was all alone. He resisted, but we overcame him. We put a rope round his neck tight so that he could not call out and dragged him down to the shore about 80 paces off and then strangled him. Our reason for taking him there before killing him was that we would not have been able to carry his body to the beach for the purpose of burial.

Q. You say he was an "*atlak*." Why did you consider him so?

A. Because he was a bad man and when he came to the village every man in the village, except himself, used to suffer from headache and stomach-ache.

Q. Did any men die?

A. Yes, five men died. (Accused cannot say when and does not know their names.)

Statement of Nicobarese Hinoila of Teressa Village, Nicobars, accused in Sessions Case No 1 of 1980-91.

"I am a *menluana*. I performed several sacrifices to cleanse the woman Him-Young-We, of witchcraft, so I ordered Hat Pali, Ashiale and Wā-at-Koyo to kill her about four months ago, because she ate men. I never saw her eat men. By the sacrifices I performed I found she had been eating men—that is she killed men by magic. If she got angry with any man, the man died.

"When a man is sick I attend him and find by pressing his stomach that he has been bewitched."

Deposition of Nicobarese Balanson, resident of Chowra Islands, 2nd witness for prosecution in Sessions Case No. 5 of 1890-91.

"The deceased was my father. He was killed five years ago. My son in Court (NOTE—a boy about six years of age) was not then born. The accused told me that he had killed my father Shumeong. I was in the jungle that day. He hit him about 11 A.M. and he died about 1 P.M. I saw the body when I came back from the jungle. It was taken out to sea in a *henmai*. I was not at all sorry when I heard of my father's death, as he was a bad *menluana*.

"All the village was glad when they heard of it. There have been no murders in Chowra since then.

"I was quite young at the time." (Witness points to his elbow as his then height)

Extract from Reasons for Commitment in Criminal Case No. 22 of 1890-91 of the Court of the Officiating Deputy Superintendent.

* * * * * *

It appears that the deceased Kára, son of Kinki, a leading man at Kakana village, and brother of Satuk, the witness for the prosecution, was a man of violent temper and had on three occasions and apparently on trifling provocation, committed murder, in consequence of which he had incurred the ill-will of all, or at least of the majority, of his fellow villagers, none of whom, however, could be induced to lay hands on him. The result was, therefore, that when about four months ago the headman of that village, Chuk-chon (No. 1 accused) decided on putting Kára to death, he could prevail on no one at Kakana to venture on carrying out his wishes. He accordingly sent his son Irokté (No. 2 accused) to Kémios with directions to summon four men, naming Accused Nos. 3, 4, 5 and 6, to come and kill Kára. Although unacquainted with the deceased these men are shown to have required no further inducement than the assurances of Chuk-chon and Irokté as to the bad character of the deceased in order to comply with their request.

It is shown that No. 3 accused provided himself with a thick stick and that the party guided by No. 2 accused and accompanied by a number of the men of Kemios left for Kakana where they arrived before dark and were met by No. 1 accused who proceeded with them to Kinki's hut. There, under the hut, the deceased was found seated and he was pointed out to them by Nos. 1 and 2 accused as the man whom they wished them to murder.

Thereupon No. 3 accused stole behind the deceased unobserved with his club with which he dealt him a blow on the back of the head which felled him. This he followed up with several more blows which rendered the deceased unconscious. No. 4 accused next seized the arms of the deceased and forcing them back severed the tendons at the shoulders.

Meantime No. 6 accused procured some cord from Kinki's hut (under which the murder was being committed) and with this he and his brother, No. 5 accused, proceeded to complete the murder by strangling the deceased, whose body was then buried in the sand near the shore, where the intention is to let it remain for one year, and then to throw the bones in the sea.

Examination of Tatéo, resident of Kemios, Car Nicobar, Accused in Sessions Case No. 16 of 1890-91.

Q. State what you know regarding the circumstances attending the death of Kára at Kákana.

A. "About five months ago Irokté, son of Chuk-chón, came to my village and told me, my brother (Songo-o-sóe), Tinbelly and Maichich that he wanted us to go with him to Kákana and kill Kára whom I knew as a bad character at that village, and who, among other things, had been reported as having murdered three men of Kákana.

"We agreed to go with Irokté as desired. Maichich provided himself with a thick stick. When we got to Kákana it was evening. Irokté led us to Kinki's hut, where we saw Kára seated below smoking. I did not see Chuk-chón there. On Irokté pointing out Kára to him, Maichich approached him from behind, and with his stick struck him a blow on the back of the head which brought him senseless to the ground, after which he struck him several more blows on the ground. Tinbelly then seized Kára's arms and forced them back, breaking the sinews. I meantime fetched some cord from the hut above which had shortly before been vacated in terror by Kinki, his wife and a girl. I did not see Sátuk there. With the cord, my brother and I completed the murder by strangling the deceased. We afterwards buried the corpse in the sand. I saw Maichich throw his stick into the sea after the murder. All the village people were glad at Kára's death.

Deposition of Nicobarese Lorenzo, resident of Tamalu village, Car Nicobar, 1st witness for prosecution in Sessions Case No. 1 of 1891-92, who promises to state truly.

"About five months ago a man named Chäm was killed under his hut at Tamalu village. I was one of many who witnessed the murder. It occurred after supper. He was killed by Sá-mya and Arotrum. The former, seeing the deceased take up a dáh, seized hold of him and called to Isóe-chòk to help him. These two men and Arotrum had gone to Chäm's hut that evening for the purpose of killing him. Seeing them there Chäm must have suspected their object, and this would account for his suddenly arming himself with a dáh.

"Isóe-chòk broke the arm and thigh tendon of the deceased, according to our practice on such occasions, while Sá-mya held the man down. Arotrum assisted them by holding the deceased down by the hair of his head. Arotrum then produced a piece of cord which he had brought with him, and with this he and Isóe-chòk strangled the deceased. They then took the corpse out to sea and sunk it with stones. The deceased had a wife and a son.

"Neither they nor any one else on the island were sorry at the murder, as the deceased was a bad man who had been frightening many of us by threatening us with a spear. At night he would wake people up and tell them he was going to spear them. Everyone went about in fear of him. We did not regard him as mad.

"Edwin happpened to be in the village when we made up our minds to kill the deceased, and he approved of it and was one of those who witnessed it. Our own headman, Hikka (*alias* Káoé), had also expressed his approval of our killing the deceased, and he was also one of the witnesses to the murder."

Deposition of Réla, Nicobarese of Car Nicobar, 2nd witness for prosecution in Sessions Case No. 14 of 1892-93.

"I was servant of Sa-huit-kaw. He was bad man. He went in for witchcraft. He always went out at night and burnt people's excrement. He killed six persons—three men, three women. About six months ago I was, about midnight, sleeping in a hut near the sea-shore. I heard a noise in Lenuk's house, and saw Sa-huit-kaw being pulled out by accused Nos. 5 and 6. I saw all the six accused then proceed to kill him. They put him on the ground face downwards, some holding him and others bent back his arms and thighs till the tendons were severed at his shoulders and the lower vertebræ dislocated and then passed a cord round his neck and strangled him and conveyed his body into deep water and sank it. Other witnesses in attendance saw the deed. I then ran away."

Deposition of Oyata of Kemios village, Car Nicobar Island, in Sessions Case No. 1 of 1895-96, regarding the murder of Car Nicobarese Tinbelly of Kemios village.

About the beginning of last rains, *i.e.*, about ten months ago, the deceased Tinbelly was murdered in the hut of Piko-koi (No. 2 accused) in the village of Kemios. The murder occurred at about noon, and was committed by the order, and in the presence, of No. 1 accused (Chok-komrian) who, with the two other accused, had been sleeping during the forenoon in the hut beside the deceased. No. 1 accused stood at the foot of the ladder and directed Nos. 2 and 3 to go up and kill the deceased. They at first demurred, but he threatened them that he would kill them if they disobeyed his order. On this the two men ascended the ladder. The only other person near the foot of the ladder at the time, besides me and No. 1 accused, was Kantera. Shortly after Nos. 2 and 3 entered the hut. I heard the sound of blows and this was followed by the corpse of the deceased being flung down the ladder by the two accused (Nos. 2 and 3). There was no one else inside the hut at the time. The two accused then descended from the hut; No. 3 had a cord with him. With this he and No. 2 accused strangled the deceased according to Car Nicobar custom, in order to make quite sure of killing him. No. 3 accused then took a clasp knife which he found in the deceased's hand and proceeded to cut the arms and calves of the deceased with it. Some little time after this the three accused lifted the corpse and proceeded to convey it into the jungle to bury it. Kantera and I, being afraid, did not accompany them but went to Arong village and informed Igomle, elder brother of the deceased, who at once went off to Kemios to inquire into the matter. The deceased was son-in-law of No. 1 accused, and his wife had for some months passed been carrying on an intrigue with the deceased's younger brother (Sanenya) which angered the deceased, and she consequently had for about a month before the murder been living with her father (No. 1 accused). Deceased had threatened to kill her for her misconduct, and it was for this reason that No. 1 accused determined to kill the deceased.

Question by court.—The murder was committed by means of an axe which No. 2 accused found inside the hut. He brought the axe out, stained with blood, after killing deceased.

Question by court.—When the corpse was thrown down the ladder, what wounds did you observe on it, and did either of the accused state by whom they had been inflicted?

Answer.—I saw wounds on the head and on the chest, and No. 2 accused stated that he had struck the blows. He descended the ladder with an axe which had blood on it. He threw the axe away when he came down below. Deceased was dead when they threw him down the ladder.

Examination of accused Rinangmaren of Perka village, Car Nicobar Island, in Sessions Case No. 11 of 1896-97 in the murder of Sapuang and Omkum, both of Perka village Car Nicobar Island, about July 1896.

Q. You have heard the evidence for prosecution. Do you admit or deny the truth of it?

A. I admit the truth of what has been said.

Q. What have you to say about the murder of Sapuang and Omkum?

A. We, the six accused, Scarecrow, Tafonengsang, Rinangno, Chulancha, and Kumati, with myself, killed the said two deceased, because they were bad men.

Q. What had the deceased done to you?

A. They were always threatening us with a gun, and were in the habit of stealing pigs and fowls, and on one occasion some time before had set fire to two huts, one at Malacca and one at Perka.

Q. Did you all combine to kill the deceased in the way described by the evidence?
A. Yes, we six all struck the two deceased with long sticks, like the one exhibited.
Q. Were you, the six accused, alone concerned in this murder?
A. We only were concerned, no others.
Q. Were the deceased in possession of the gun when murdered?
A. Yes, the gun was with Sapuang, and was taken by us after the two deceased were killed.

Statement of Nicobarese Tamkoi, resident of Chowra, accused in Sessions Case No. 4 of 1897-98.

Q. State how the deceased Kanmila came by his death.
A. What has been stated by the four witnesses, as recorded in the depositions, now read to me, taken by the Committing Magistrate, is correct. The murder occurred at night about three months ago in my father's hut at Chowra. No. 3 witness, Okio, and several other persons, including my father who was lying ill at the time, saw what occurred. I struck deceased with a stick on the back of his neck, and he fell dead or unconscious. I threw the body down the ladder and followed. Assisted by the witnesses Kamrang Piko No. 1, Cher No. 2, Okio No. 3, and Tachoi No. 4, I lashed the limbs of the deceased together with some cane, and we carried the body down to the beach. We then placed three heavy stones in a canoe and, attaching the corpse to the stern of the canoe, we towed it out to sea, where, after weighting it with three stones, we sank it in deep water; we then returned to the shore.

Examination of accused No. 1, Nátla, of Malacca village, Car Nicobar Island, in Sessions Case No. 13 of 1899-1900, in the murder of Tekwa, a fellow villager.

Q. You have heard the statement of Tom Jackson; what have you to say?
A. The deceased Tekwa was a bad man, and caused the death of my child Mahöa by witchcraft. This was about one year ago. I made no report as I intended to kill him if he continued to commit any more offences. Some months later he commenced to kill pigs belonging to me and to No. 4 accused. We two, therefore, together with No 2 accused, in whose hut deceased lived, conspired together to kill the latter. We called No. 3 accused, who lives in the same village, to assist us. About 10 days ago at 6 P.M. we gave deceased *tari* to drink in the hut of No. 2 accused, and when there was none remaining there we adjourned to the hut of No. 4 accused on the excuse of obtaining a further supply there. When near that hut I seized deceased round the arms and No. 4 caught hold of his hair and brought him to the ground where I broke the joints of deceased at the elbows and knees. Nos. 3 and 4 accused then passed a cord round deceased's neck and strangled him. No. 2 accused stood by looking on, but said nothing. He and No. 3 raised the corpse and conveyed it to the beach where, unobserved by any of the villagers, we buried it in the sand. Deceased had no other relatives except his wife and two children (small). The former was not angry with us for what had happened, but was merely frightened. We made no report about the case as we were afraid to do so.

Examination of Kumati of Perka village, Car Nicobar Island, in Criminal Case No. 8 of 1902-03, of the Court of the Deputy Superintendent.

Q. Do you know what has become of Tafon?
A. Yes, I do know. I and Takaya Ku, and Angkasa have killed him.
Q. How did you kill him?
A. As we were returning from the dance, we met the deceased Tafon on the road, about two or three hundred yards from the beach in the jungle. I told the other two accused that it would be a good opportunity to kill him. Takeyaku and I tied his hands and feet, and Angkasa pressed his throat with his hands and with a rope till he was nearly dead. We then tied him to a pole and carried him to the beach, where we strangled him. We put the body in a canoe and took it out nearly a mile and dropped it in the water.
Q. Did Tafon call out when you seized him?
A. No, because we seized him by the throat.
Q. Why did you kill him?
A. Because he stole my pigs, poultry, nuts, and pan leaves.
Q. Were you convicted on a former occasion of murder?
A. Yes, of the murder of two men, and was taken to Port Blair for one year.

APPENDIX E.

RELATIONS WITH THE BRITISH.

Instructions of the Chief Commissioner (Major-General M. Protheroe) to the Officer in charge, Nicobars, as to the appointment of chiefs, 28th August 1882.

A certificate is to be given to each headman appointed by you. These certificates of appointment should, I think, be issued from this office on the recommendation of the officer in charge, Nicobars, any alterations therein or additions thereto being submitted from time to time for consideration, and a register of such certificates being maintained both in the Chief Commissioner's office and that of the Officer in charge, Nicobars.

I return the lists submitted by you and shall feel obliged by your taking them to the Nicobars and ascertaining whether the men who are therein proposed as village headmen are willing to take office. If so, you should prepare and forward to me a list showing the names of the Nicobarese whom you propose to appoint and of the villages of which they are to have charge and forward the same to me, when the necessary certificates will be prepared and printed on durable paper.

The distribution of these certificates might be made the occasion of some little ceremony to show the Nicobarese that we are desirous of investing headmen with influence, and of treating them with consideration. I trust therefore that you will be able to persuade the villagers selected for office to attend at Camorta on a certain date. The nominees, who may thus assemble to receive their certificates, might be entertained during their stay at the station at Government expense and suitable presents bestowed upon them before their departure to their homes.

On hearing from you that these preliminaries have been arranged, I will visit Camorta and be present at the distribution of the certificates.

It is probable that the appointment of these headmen will not at first effect any material change in our relations with the Nicobarese, nor indeed would it be advisable to exact much from them in the first instance, but once appointed all intercourse with the villagers should be conducted through these headmen, whose influence through their connection with Government would, in course of time, be recognized by the villagers.

The duties required by law of village headmen are defined in Section 90 of the (old) Criminal Procedure Code, but it will be sufficient at first to impress upon the newly appointed headmen that we look to them to keep us acquainted with any unusual event which may occur within the limits of their respective charges.

All certified headmen visiting Camorta station on duty should be treated with consideration by the Officer in charge and granted subsistence while at head-quarters.

It is obvious that the success or otherwise of this attempt will depend mainly on the tact and good management of the officers employed in carrying out the details thereof. Your knowledge of the language and experience of the Nicobarese are advantages which will enable you to explain to them thoroughly what our wishes are and I am confident that no effort will be wanting on your part to attain the object in view by Government.

APPENDIX F.

MR. DE ROEPSTORFF'S NOTE ON THE SHOM PEN, 1883.

The inland or rather hill tribe of Great Nicobar have been visited by me several times, but I have only twice seen any number collected. The first time was on a visit to their villages on the hills above Laful Village with Colonel Cadell in March 1881. The second time was at a little trading house which lies on a stream at the head of Ganges harbour. I visited this place in November 1882 with Major (General) Protheroe, and we then found the hut, but deserted. In January this year (1883) I again visited the place and found the people present. As I had met them before they gave me a good reception. On both occasions I counted 25, men, women and children, but I did not see all the people of the sub-tribe. I have marked the (sites of) the other sub-tribes not visited by me and I hope some one of the other officers will also take up the matter as the chances are so very few to visit these isolated tribes. Until all sub-tribes have been visited, the question of whether there is any trace of negrito blood cannot be finally settled. I have estimated the hill tribe at 100 head which is a low estimate. I believe they are more numerous than the coast people.

APPENDIX G.

CAR NICOBAR.

List of the chiefs of the different villages and their deputies, 1896.

Village.	Chiefs.
Mus	Offandi. / David Jones.
Kenmai	Young Gwynne. / Stephenson.
Lapati	Young Edwin. / Chon Frederick.
Tapoiming	Lowi. / Kaluang.
Chukchuacha	Sam. / Young Brown.
Kenuaka	Corney Grain. / Joseph.
Tamalu	Hikka. / Linuk.
Perka	Ka-nga-na. / King Fisher.
Malacca	Telegraph. / Ramulla.
Kakana	Kinki. / Sanel-nga.
Kemios	Silama Chetty. / Monka.
Harong	Tom Dixon. / Gofal.
Sawi	Distant. / Crow.

List of Nicobarese headmen to whom new certificates, flags and clothes have been issued, 1896.

Name of Village.	Name of Headmen.	Issued.			
		Flag.	Certificates.	New suit.	
	Car-Nicobar.				
Mus	Offandi	1	1	1	
Kenmai	Young Gwynne	...	1	1	
Lapati	Young Edwin	...	1	1	
Tapoiming	Lowi	...	1	1	
Chukchuacha	Sam	...	1	1	
Kenuaka	Corney Grain	...	1	1	
Tamalu	Hikka	...	1	1	
Perka	Ka-nga-na	...	1	1	
Malacca	Telegraph	...	1	1	
Kakana	Kinki	...	1	1	
Kemios	Silama Chetty	1	1	1	
Harong	Tom Dixon	1	1	1	
Sawi	Distant	...	1	1	
	Teressa.				
Hinam	Hat	1	...	1	
Kirawa	.....	1	...	1	
	Bompoka.				
Pohat	Kinsuet	1	1	1	
	Camorta.				
Kehual	Kahepshi	1	1	1	
Masohit	Chandu	1	1	1	
	Trinkat.				
Okchuaka	England	...	1	1	
	Little Nicobar.				
Pulo Milo	Konshuri	1	...	1	
	Great Nicobar.				
Kondul	Dang	1	...	1	

APPENDIX H.

List of Trade Articles valued in cocoanuts (1896).

Articles.	Price in Cocoanuts.
Soup Ladle Nickel Silver	500
Long spoon „	500
Dessert Spoon and Fork „	500
Table Spoon and Fork „	300
Tea Spoon and Fork „	120
Mustard Spoon „	200
Silver pieces of 2 annas	8 Pair
Do. do. 1 rupee	50 „
Tumblers	20 to 40 according to size.
Decanters	60 to 80 do.
Plates and Soup Plates, white	40 to 80 do.
Bowls „	40 to 80 do.
Enamelled Plates „	40 to 80 do.
Do. Cups „	40 to 80 do.
Matches, a bundle of 12 boxes	24
Needles, a dozen	12
Balls, thread, a dozen	12
China tobacco, 1 packet	40
Tobacco, 1 bundle	100
Red cloth, 1 piece	1,200
Do. do. Turkey, 1 piece	1,600
Calico white, 1 piece	800
China black cloth, 1 piece	600
Madras Handkerchiefs, 1 piece	800 to 2,000
Rice (1 bag of 2 maunds Calcutta)	300 to 500
Do. (1 bag of 3 maunds Burma)	500 to 600
Chattis and Pots	10 to 40
American knives	80 to 120
Do. do., folding	20 to 60
Burmese *Dáhs*	40 to 200
Table knives	40 to 160
Fancy coloured chintz and *Saris*	Variable prices.
Fancy Bombay Handkerchiefs	
Wooden clothes box	
Tin „ „	
Looking Glass	
Sugar	
Camphor	
Epsom Salt	
Eno's Fruit Salt	
Turpentine	
Castor Oil	
Cabin Biscuits	
Fishing net	

APPENDIX I.

TRADE RETURNS IN 1857 (NOVARA EXPEDITION).

At present (1857) the principal product of the Nicobars is the cocoa-palm, which grows chiefly on the sea-shore, as far as the coral sand extends, and seldom pushes far inland, for which reason it was appropriately named by Martius, that most meritorius student of the palm family, the "sea-shore palm." The settlements of the indolent inhabitants of the Nicobars, who have neither tillage nor other industry, are therefore confined to this tract. Few natives could ever have been induced to go into the interior of the islands. The same kindly plant which affords the natives food and drink also brings them into involuntary contact with civilization, and becomes the means of introducing those wants and objects which are the result of a higher degree of development. Ripe cocoanuts form the chief article of export of the Nicobar Islands; edible birds'-nests, tortoise-shell, ambergris, trepang, etc., being of little importance as exports, are only shipped as secondary freight. According to printed returns, the northern islands are said to yield annually ten million cocoanuts, of which, however, at present, hardly more than five millions are exported,—three millions alone from Car Nicobar, and two millions from all the other islands together. As this important fruit is here six times cheaper than on the coast of Bengal, or in the Straits of Malacca, the number of English and Malay vessels that come here (principally from Penang) to ship cocoanuts, is every year increasing. The trade is carried on not in cash, but by barter, though silver has already a high value; and, notwithstanding all that is talked of the greediness of the Nicobarians for tobacco, glass-beads, and gewgaws, the truth of the proposition that money is the most current ware is even there justified.

The favourite articles of barter are cutlasses (like the *machetes* or wood-knives of the South American Indians), table-knives, axes, muskets, calico, and other coloured cotton stuffs, salt meat, biscuit, onions, rice, American chewing-tobacco (in sticks), medicines, salts, spirits of camphor, peppermint, turpentine, eau-de-cologne, castor-oil, silver wire, beads, rum and old clothes; above all, black felt hats, the strange preference for which may arise from the fact that the natives sometimes see the captains of English ships wearing black hats, and so come to regard this article of dress as a token of the position of captain or man in authority. On the Island of Car-Nicobar in 1857, the following relation subsisted between the number of cocoanuts delivered and the wares bartered for them :—

For 1 cutlass (worth about 1½ dollars)	300 ripe cocoanuts.
„ 1 knife-blade	100 „ „
„ 6 table-knife-blades	300 „ „
„ 1 American clasp-knife	50 „ „
„ 1 axe	300 „ „
„ 1 musket	500 „ „
„ 1 double-barrelled gun	2,500 „ „
„ 1 large metal spoon	180 „ „
„ 1 piece of silver wire 30 inches long (used as an ornament)	2,500 „ „
„ 1 keg of rum	2,500 „ „
„ 1 bottle of arrack	10 „ „
„ 3 sticks of American, so called negro-head, tobacco	100 „ „
„ 1 phial of castor oil	50 „ „
„ 1 lamp	500 „ „
„ 1 bag of rice	300 „ „
„ 1 piece blue calico (about 4 to 5 yards)	100 „ „
„ 1 handkerchief	100 „ „

APPENDIX J.

NICOBARESE RECKONING.

Like most half-civilised people the Nicobarese have evolved an elaborate and clumsy method of enumeration, in their case [as in that of the Kafirs of Kafiristan whose *huzār* (1,000) = 20 × 20 or 400] based on tallying by the score. And in order to project oneself into their minds and to grasp numbers as they present themselves to the Nicobarese, one has to set aside preconceived ideas on the subject dependent on the European decimal notation. The old English tally by the dozen and the gross, which still survives commercially mixed up in the higher figures with the general decimal system, for small articles made and sold in very large quantities, forms an almost exact parallel.

The Nicobarese have not much use for large numbers, except for their currency and export article of commerce, the cocoanut, and hence they have evolved two concurrent systems of enumeration, *viz.*, one for ordinary objects and one for cocoanuts.

In applying terms for numbers to objects and things they use special numerical co-effiicients, as do all the Far Eastern races, but the explanation of these belongs to Language and will be found in that section of this Report.

For ordinary objects the Nicobarese enumerate by a curiously isolated set of terms up to half a score (ten) by separate words—thus in all the dialects.

Car Nicobar.	Chowra.	Teressa and Bompoka.	Central Group.	Southern Group.	Shom Pen.
1. kahōk (heng)	hēang.	hēang.	hēang.	heg.	heng.
2. neat.	ân.	ân.	ân.	ân.	au.
3. lūe.	lūe.	lūe.	lōe, lūe.	lūe.	luge.
4. fan.	foön.	foön.	fôan.	fôat.	fuat.
5. tanī.	tanī.	tanī.	tanai.	tanī.	tain.
6. tafūal.	tafūal.	tafūa.	tafūal.	takôal.	lagau.
7. sât.	ishât.	isseat.	issât.	ishât.	aiñ.
8 heo-hare.	enfan.	enfoön.	enfôan.	enfôan.	towe.
9 maichūa-tare.	kalafan.	rōe-hata.	heang-hata.	hach-hata.	lungi.
10. sam.	shom.	shom.	shom.	shab.	teya.

After the half score and up to fifteen the enumeration is ten—one and so on for all the dialects, except Car Nicobar where they count one—ten and so on, using then *sīan* for *sam*. Among the Shom Pen, the inland tribe, who have no export commerce, there are no such special systems of enumeration as the other people have, but in addition to direct reckoning they count by pairs, a point of some interest as will be seen hereafter. Thus *au*, two, becomes *ta-au*, a pair. Then 2 = *heng ta-au*, one pair; 3 = *heng ta-au heng*, one pair one; 4 = *au ta-au*, two pair, and so on. For numerals beyond ten the Shom Pen have an expression for half-a-pair *mahaukoâ*, which again will be found later on to explain a point in the system of the other tribes, and count thus up to 15; *heng mahaukoâ teya*, one half-pair (and) ten = 11, and so on.

When approaching the first or any score all the dialects use a plan in common with many other people of counting "more reach a score." *E.g.*, in the Central dialect *loe tare tangla heang momchiama*, 3 more reach one score = 17 : *an tare tangla foan momchiama*, 2 more reach four score = 78.

A score in all the dialects is named as follows :—

Car Nicobar.	Chowra.	Teressa and Bompoka.	Central Group.	Southern Group.	Shom Pen.
michāma (anai)	noöng (tom)	momchīama (tom)	momchīama (inai)	pomchiama (inai)	inai

And after the score the Central and Southern Groups have a term for half-a-score (*doktai*), just as the Shom Pen have, as we have seen, one for half-a-pair. Thus in these two dialects 30 is *heang momchiama doktai*, one score (and) half-a-score.

Between the scores the numerals otherwise run as above explained,—"one score one" and so on.

The large figures 100 and so on are merely 5, 10, 15 scores up to 400, which is a score-of-scores in all the dialects, except Shom Pen which says *heng-teo*, *i.e.*, one *teo*, or score-of-scores, another point of importance in reckoning, as will be presently seen. For expressing score-of scores the other dialects use the alternative term for the first score, a point of interest later on, *e.g.*, in Central dialect *heang inai momchiama*, one score (of) scores.

The numeral we call 500 all the Nicobarese dialects call "one score (of scores and) five scores," except Shom Pen which says one-*teo* (score of scores) five (scores). So 600 is in the Central and Southern dialects "one score (and a) half (score of) scores": in Shom Pen it is "one *teo* (and) ten score": in Teressa it is "a score (and) ten (of) scores": in Chowra and Car Nicobar it is "a score (and) five pairs (of) scores." So also 700 in the Central and Southern dialects is "one score (and) half (score and) five (of) scores": in all the rest it is "one score (and) fifteen scores." Beyond 600 the Shom Pen and beyond 700 the other dialects, except Car Nicobar, do not ordinarily reckon. For 1,000 the Car Nicobarese say "two score

(and) five pairs (of) scores" : for 2,000 they say "five score scores." Beyond 2,000 they do not ordinarily have to reckon.

We are now in a position to reckon according to the Nicobarese fashion, supposing ourselves totally as we go along.

Tally by the score (1 to 20).

(*All dialects*) one, two, three, four, five, six, seven, eight, nine, ten.

(*All dialects but Shom Pen and Car Nicobar*) ten-one, ten-two, ten-three, ten-four, ten-five, four-more-one-score, three-more-one-score, two-more-one-score, one-more-one-score, one score. ALLY.

(*All dialects but Central and Southern*) (20 to 40) score-one, score-two, ... one-more-two-score, two score. TALLY.

Tally by score of scores (20 to 400).

(*All dialects but Shom Pen*) one-score, two-score, three-score, ... one-more-one-score (of) scores, one-score (of) scores. TALLY.

Further tally by score of scores (500-700-2,000).

All dialects except Shom Pen by varying expressions, meaning, one-score (and) five (of) scores, one-score (and) ten (of) scores, one-score and fifteen (of) scores, ...two score (and) five (of) scores ..... five score scores.

The Shom Pen stop tallying altogether at 600 : and the others, the Car Nicobarese excepted, at 700 and the Car Nicobarese themselves at 2,000, except for cocoanuts, for which there is a separate system.

Tally is usually kept by nicks with the thumb nail on strips of cane or bamboo, in Car Nicobar by notches cut in sets of five on a stick. Each nick or notch represents a score of whatever is being enumerated.

As regards the exceptions above noted. For tally up to a score, beyond ten the Car Nicobarese say "one-ten" and so on, to fifteen. For even numbers the Shom Pen use besides direct numerals, "one-pair, two-pair," etc. : and for odd numbers "one-pair-one," and so on : and beyond ten to fifteen they say "one half-pair (and) ten" and so on.

For tally beyond a score the Central and Southern people use a term, *doktai*, for "half-score" in the same way as the Shom Pen use "half-pair." This word is of great interest, as it is a lost stem, meaning "(waning to) half," which can be shown to be the case by the term for 5,000 in Car Nicobarese, *drongte lak*, half *lak*, *i.e.*, half 10,000. Here *lak* is borrowed from the Far Eastern *laksa, lak*, 10,000 (one form of the Sanskrit *laksha*, just as *lakh* for 100,000 is another in modern India), and *drongte* (*doktai*) is not otherwise found in Car Nicobarese. This term "*drongte*" is applied also to the "half (waned) moon" while "*dronga*" means "waning."

It will have been noticed that there are alternative terms for "score" ; one *old* one, as shown by the Shom Pen form, and one newer : the newer term being now used for "score" and the old one to tell or multiply it by the score. In going into the cocoanut counting system these alternative terms will be found put to yet another use. Again the Shom-Pen have a special term for score-of-scores, *teo :* and can tally up to large figures by scores : one score, two scores, three scores, one more one *teo*, one *teo*. This idea too will be found to be of value when going into the system of counting cocoanuts.

Another subversion of inter-island custom is to be noticed in Car Nicobar, where one is ordinarily *kahok*, but for cocoanuts one is the universal *heng*.

Beyond the score-of-scores (400) the Nicobarese have so seldom to enumerate ordinary objects that their nomenclature for the numerals then becomes, though clear, uncertain, as will be seen from the different methods by which the various islanders arrive at the same sum. At the same time the fact that the Shom Pen stop at 600, the others, except the Car Nicobarese, at 700, and the Car Nicobarese themselves at 2,000, is not due to want of intelligence, but to want of practical use : just as we stop practically at a million and most people are uncertain as to whether a billion is 10 or 100 or 1,000 or even a million millions. Beyond the billion the terms become academic.

As regards the smaller simple numbers the terms for them have got quite away from any idea now of connection with the hand or multiplication of each other, though both can be seen after examination to be present. The word for hand *tai* in Nicobarese is a "lost root" and now only exists for parts of the hand, thus,— *ok tai* back (of the) hand ; *oal tai* (in-hand, palm) ; *kane-tai* (stick-hand) and even *tai* (finger). So *tanai* (as will be seen from the "Etymology" to follow) is certainly a derivative of *tai*, formed with the differentiating infix *an*, thus :—*tai*, hand, fingers, *t-an-ai*, five. Next we find two clear roots *á* (*au, an, áṅ*) two and *fú* (*kó*) pair : whence in various forms, *an,* two ; *foan,* four, (two pair) ; *en foan,* eight, (twice two-pair). So in Shom Pen three, six and nine (*luge, lagau, lungi*) are clearly the inflected remains of some such connected multiples, and in the other dialects "six" is three pair ; *lue,* three, (*ta*)-*fū-al,* six, a pair of three (*ta* is a common radical prefix in the language). *Tafūa* (*tafūal, takóal, tahol*), which in that case is really a numerical coefficient, also means a pair in all the dialects except Shom Pen, and is built up etymologically in the same way as the homonym for six quite legitimately, thus,—*ta-fū-a,* prefix-root-suffix ; while we see the root again in Shom Pen in the (probably mixed) compound term for "half-a-pair" *ma-hau-koá,* (?)-two-pair. The term *heang-hata* for nine is an elliptical phrase "*heang hata* (*shom*)," one less (ten), as will be seen later on.

Turning now to the second system—the Nicobarese method of reckoning cocoanuts for commerce and currency, and from cocoanuts money, which they do not possess themselves, carries them into large figures. It is still a tally system, adopted for commercial purposes by all except the Shom Pen, from the system of tallying by the score.

Cocoanuts as currency are seldom used in small quantities and the Nicobarese get quickly to the score by counting the nuts in pairs :—thus one, two, three, four, five, six, seven, eight, nine pairs, one score. TALLY.

The term used for "score" in this case is *inai* (*tom*), the alternative already noted, and not *momchiama* (*pomchiama, michama, noöng*) as in the case of ordinary articles, *momchiama* being adopted, *quâ* cocoanuts, for "score-of-scores."

It must be remembered that cocoanuts, except when stated in scores or multiples of scores are always stated in pairs (*tafua, tafual, takoal*), the term for which is omitted in reckoning, unless it is necessary to express it for very small quantities or in the case of odd numbers, when 3 becomes "one-pair-one, *heang-tafual-heang*," and so on.

In tallying cocoanuts by the score the various islands have set up different standards of tally, which are complicated and in many cases in alternative use. The number of standards in fact indicates the trade, where trade is briskest the standards are most numerous. It may be noted that in counting cocoanuts "ten pair" may be substituted for "one score" in the lower tally everywhere, except in Chowra, where "one score" is used without an alternative.

It is now necessary to use some abbreviations :—C. = Central, S. = Southern, T. = Teressa, C. N. = Car Nicobar, and Ch. = Chowra.

The least developed method of tallying by the score is in C. and S., where there are only two standards, *inai* score (20) and *momchiama* score-of-scores (400). There the counting by the score is :—one, two, three,...score, one *momchiama* (score-of-scores) ; then one, two, three,... up to any number of *momchiama*. This method is very awkward in the higher figures, thus—

500	1	momchiama	5 (score) [400+5 (20)]
600	1	„	and-a-half (doktai) (400+200)
700	1	„	and-a-half 5 (score) [400+200+5 (20)]
1,000	2	„	and-a-half [(2×400)+200]
3,000	7	„	and-a-half [(7×400)+200]
10,000	1	score	5 momchiama [(20+5)×400]
20,000	2	„	5 pair momchiama [(40+5 [2] ×400]
100,000	10	„	5 momchiama [10×(20+5)×400]
200,000	1	„	5 (of) score (of) [momchiama (20+5)×20×400]

Car Nicobar adopts the score and score-of-scores (*inai*-momchiama) standard, but only alternatively and only as far as the higher of the two (400). T. and Ch. will talk about 11, etc., score, but as far as 15 score, only.

All these three islands, Car Nicobar, Teressa and Chowra, have a third standard at ten score (200), which is in these dialects called

C. N.	T.	Ch.
'ong*	nong	la

Then alternatively Ch. and C. N. will reckon by the *la* or *'ong* up to 15 score, and C. N. alternatively up to 20 score. Beyond the *nong*, T. always reckons by the *nong* thus.

200	1 'ong (nong, la)
300	1 'ong (nong, la) 5 score.
400	2 'ong (nong, la)

The standard of ten score (200) is carried by all the three islands C. N., T., Ch., up to 2,000, *i.e.*, 10 *'ong* (*nong, la*), when alternatively a new standard commences in C. N. called *kaiñe*, in T. and Ch., *mamîla*. Thus—

2,000	1 kaiñe (mamila)
3,000	1 kaiñe (mamila) 5" ong (nong, la).

After this the islands break off on their own lines. Thus T. carries on this (*mamila*) standard for all the higher figures: the 200,000 being in that dialect simply 5 score *mamila* (5×20×2,000). C.N. and Ch. do so also as far as 100,000, which is in all the three dialects 2 score 5 pairs *mamila* (*kaiñe*) or [2×20+5 (2)]×2,000 ; but Ch. alternatively commences a new standard at, *mamila* (4,000) called *metñetchya* and carries that on to all figures. Thus for Ch.,

20,000	is alternatively 5 metñetchya (5×4,000)
100,000	is 1 score 5 metñetchya [(20+5)×4,000]
200,000	is 2 score 10 metñetchya [(40+10)×4,000]

At 10 *kaiñe* (10×2,000=20,000) C. N. commences a new alternative standard *lak* (borrowed from the Malay and Far Eastern *laksa* 10,000†), meaning 10,000 pairs (=20,000) cocoanuts. This is carried on to all the high figures. Thus—

20,000	is	1 lak.
100,000	is	5 lak.
200,000	is	10 lak.

By an interesting expression C.N. says *drongte lak*, half *lak*, for 10,000. This proves that *doktai*, "and-a-half" (scores) of C. and S. really contains a lost root for "half." Also it is to

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* Inflectionally (1) ngong (2) tong (3) yong (10) mong, according to the terminal of the previous numeral.

† Not from the Indian *lakh* 1,00,000. Both *laksa* (10,000) and *lakh* (1,00,000) are from the same root as the Sanskrit *laksla*.

be noticed that when C. and S. get into large figures they have borrowed the T. Ch. alternative term for score. Thus

200,000 in C. and S. is *heang inai tanai tom momchiama*, one score (and) five score (of) score-of-scores.

The following table will show briefly the standards for reckoning cocoanuts :—

Cocoanut Reckoning Standards.

I.	pair	all islands	1	tafua (tafūal, takoal, tahol)	2
II.	10 pairs or score	,,	1	inai (tom)	20
III.	10 score	Ch. T., C. N.	1	la (nong, 'ong)	200
IV.	score of scores	C., S., C. N.	1	momchiama (pomchiama, michama)	400
V.	10 ten-scores	Ch., T., C. N.	1	mamila (kaiñe)	2,000
VI.	score of ten-scores.	Ch.	1	metñetchya	4,000
VII.	10,000 pairs	C. N.	1	lak (borrowed trade term)	20,000

C.N. and Ch. have thus six standards and Car Nicobar has the highest : T. has four standards : C. and S. have three. These standards exactly indicate the relative trading opportunity of the various islanders.

The Shom Pen have no trade, but they can easily reckon up to 80,000, thus *teya inai teo* 10 score (of) *teo*, [$(10 \times 20) \times 400 = 80{,}000$.] They have three standards :—I, pair, 1 *taau* 2 : II, score, 1 *inai*, 20 : III, score of scores, 1 *teo* 400. They do not in fact fall behind the other islanders in the capacity for grasping and reckoning in abstract figures.

For European trade the table of scales would be as follows :—

Scale for Reckoning Cocoanuts.

I.

For all islands.

10 tafua or takoal or tahol (pair)	make	1 inai or tom, score	(20)

II.

C., S., C. N.

10 tafual or tahol	make	1 inai	(20)
20 inai	,,	1 momchiama or michama	(400)

III.

Ch., T., C. N.

10 tafual or takoal or tahol (pair)	make	1 inai or tom (score)	(20)
10 inai or tom (score)	,,	1 la, nong, or 'ong	(200)
10 la, nong, or 'ong	,,	1 mamila (kaiñe)	(2,000)

IV.

Ch.

10 takoal	make	1 tom	(20)
10 tom	,,	1 la	(200)
10 la	,,	1 mamila	(2,000)
2 mamila	,,	1 metñetchya	(4,000)

V.

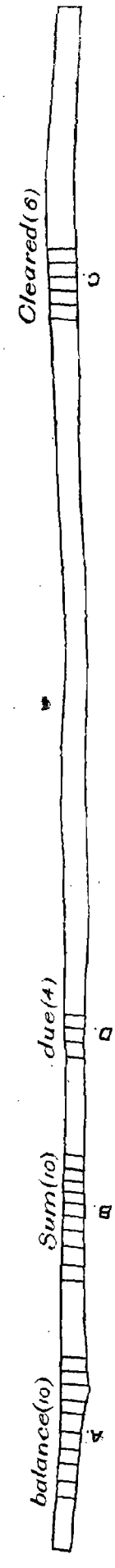
C. N.

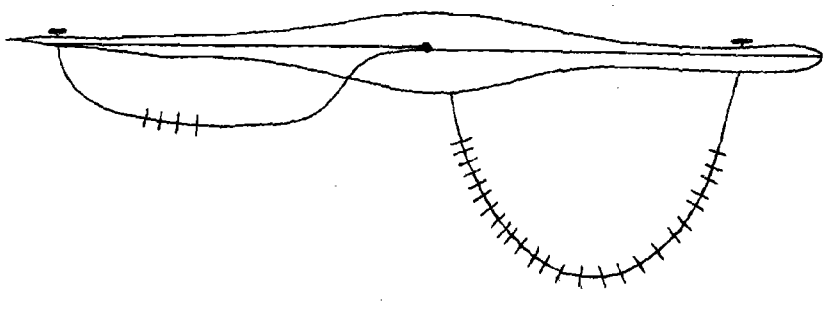
10 tahol	make	1 inai	(20)
10 inai	,,	1 ong	(200)
10 ong	,,	1 kaiñe	(2,000)
10 kaiñe	,,	1 lak	(20,000)

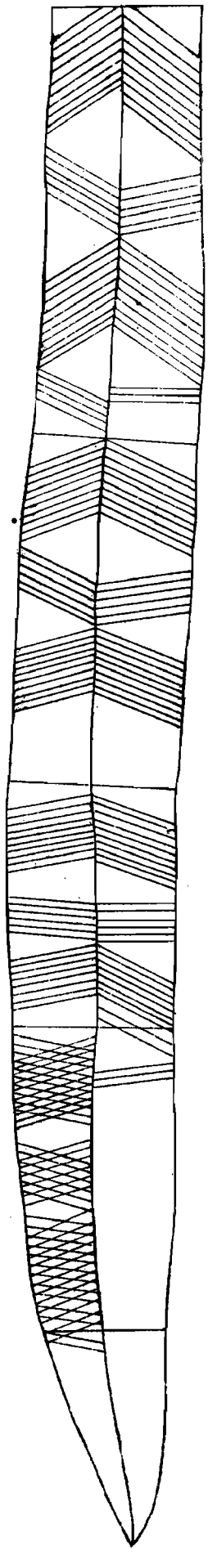
One can see, when put in *this* way, which is of course distinctly not Nicobarese, where trade has sharpened wits.

In a Car Nicobar tally stick, *kenrata-kok*, in my possession, unfortunately already dry-rotted in the notches, which are thus lost for the future a running account of cocoanuts with a trader, who has advanced rice for cocoanuts, is shown. The balance due on the rice was 2,000 cocoanuts, *i.e.*, 10 *'ong* or 1 *kaiñe* denoted by the 10 notches at A. The 10 notches at B represent the total sum 10 *'ong* to be made up. The 6 notches at C denote that the owner has cleared 6 *'ong* (1,200), the 4 notches at D that 4 *'ong* (800) are still due.

I have another tally of beads on a string from Car Nicobar (*kenrata-ngiji*) which shows that 26 *michama* (400 × 26 = 10,400) of cocoanuts are due out of a sum and that 4 *michama* (1,600) have been paid. The original debt was therefore 30 *michama, i.e.*, 12,000 cocoanuts, or as a Car Nicobarese would say, 6 *kaiñe* or *drongta lak heng kaiñe* [half *lak* (and) one *kaiñe*].







APPENDIX K.

DETAIL OF RECKONING THE MONTHS.

Each 'moon' is divided into phases and divisions in all the islands on the same system except Car Nicobar, which has a differing one. There is for descriptive purposes a waxing and a waning moon; dividing the 'moon' into halves. There are also a descriptive First Phase (*Heang La*, one piece) : Full Moon (whole or swollen moon) : Last Phase (*Kaneal*, Boar's tusk). For reckoning, the month is divided into 30 days and four phases :—I, (*she*), 1st to 10th (10 days) ; II, (*yam*) 11th to 20th (10 days) ; III, (*tatlanga*) 21st to 25th (5 days); IV, 26th to 30th (5 days). In the fourth phase the days are not counted but separately named.

In Car Nicobar there are three and four descriptive phases recognised. The three are:— First Phase (*Kanelhaun*, Boar's tusk) 2nd to 7th (6 days); Second Phase, (*Tutlaül*) 8th to 21st (14 days) : Third Phase (*Drongte chingeät*, half moon), 22nd to 1st (10 days) : total, 30 days. The four are :—Waxing moon, 1st to 10th (10 days) : Whole moon, 11th to 16th (6 days) : Waning moon, 17th to 26th (10 days) : Disappearing moon, 27th to 30th (4 days) : total, 30 days. In Car Nicobar also the full moon, and the day before and the two days after, are all recognised by separate terms. For reckoning, the month is divided into 30 days and 3 phases : waxing moon, 1st to 16th (16 days) ; waning moon, 17th to 26th (10 days) ; disappearing moon, 27th to 30th (4 days); total, 30 days.

In reckoning the month the Car Nicobarese reckon straight through the waxing moon from 1 to 16 and simply say "*kahok chingeat*, one moon . . . *tafual sian chingeat*, sixteen moon." They then go straight through the waning moon from 1 to 10 and say "*kahok dronga chingeat*, one waning moon," and so on. Lastly they run through the disappearing moon from 1 to 4, "*kahok salnowa chingeat*, one disappearing moon," etc. If intercalary days then ensue, they are all called *aiya ap-chingeat*.

In the other islands the plan of counting the days is the same, but the method differs and is more complicated. They count 1 to 10 (*she* moon) ; thus "*heang she kahe*, one *she* moon . . *shom she kahe*, ten *she* moon." Then 1 to 9 (*yam*, whole); thus "*heang yam kahe*, one *yam* moon . . *heang hata yam kahe*, nine *yam* moon." But the 20th is "*heang momchiama yam kahe*, one score *yam* moon," to finish the reckoning, because it now takes on a new phase. The 21st to 25th are reckoned backwards thus :—

21st	enfoan tatlanga	8	tatlanga
22nd	issat	„ 7	
23rd	tafual	„ 6	
24th	tanai	„ 5	
25th	foan	„ 4	

After this they reckon by separate names :

26th	ongawa
27th	hinai
28th	hinlain
29th	manut
30th	kanat

Any following intercalary days are all called *kanat*.

There is a term for the 19th in the Central Group, which explains the curious form *heang-hata* for nine. The ordinary term for the 19th day is *heang-hata yam kahe*, nine *yam* moon : but *shom heang hata tom yam*, which is obviously "ten one less score *yam*," is also used, because the 20th is *heang momchiama yam kahe*, one score *yam* moon. *Hat* means 'not' and *hata* here is clearly "less" and so *heang-hata*, nine, is an elliptic phase for *heang hata shom*, one less ten.

Another pair of expressions is *dronga chingeat*, waning moon, and *drongte chingeat*, half moon, which explains *drongta lak*, half *lak* (20,000), and *doktai* "and-a-half (score)." Here is a 'lost root' *drong*, *dok*, 'lessen,' which when combined with (*te*, *ta*) *tai* 'lost root' for 'hand,' means 'the lessened hand' or 'half.'

The only other term which might be disputed is *chamanga chingeat*, ten moon, the word for ten in Car Nicobar being *sam*, but it is quite a legitimate extension for differentiation by infix and suffix, thus ; *ch-am-ang-a* (for *s-am-am-a*).

In a Car Nicobar Calendar (*kenrata*) in my possession the days are notched as follows to indicate a monsoon. It is in the form of a sword-blade.

The first month	notches	31 days
The second	„	29 „
The third	„	26 „
The fourth	„	28 „
The fifth	„	26 „
The sixth	„	29 „
The seventh	„	28 „
		197 days.

or well over half the year, which would require readjustment during the next monsoon.

It will be observed that the notches are meant to go 10, 6, 10, 4=30.

That is, in this *kenrata* the Car Nicobarese four phase system is taken in calendering the months, *i.e.*, the months are divided into waxing, full, waning, and disappearing moon.

When the notches fill one side of the *kenrata* they commence on the other, and are thus able to keep tally of time for a short while.

APPENDIX L.

Mr. DE ROEPSTORFF'S CALENDAR.

In Mr. de Roepstorff's posthumous *Dictionary of the Nancowry (Central) Dialect*, of 1884, is given a complete and most interesting Calendar, found among his papers, for the year 1883, day by day, but unfortunately there is something wrong about it. He has given Danah-kapa and Kaba-chuij as two separate months, whereas they are duplicate names for the closing month of the N. W. Monsoon, and thus gives 13 and not 12 months to the year. He has also got the months Channi and Hammua in the reverse order. Further, his months work out thus for the solar year, giving an intercalary day each to (7) Hammua (July-August) and (9) Munakugapoah (September-October).

Month	1.	9th March	to	7th February	30 days.
„	2.	8th February	to	8th March	29 „
„	3.	9th March	to	6th April	29 „
„	4.	7th April	to	6th May	30 „
„	5.	7th May	to	5th June	29 „
„	6.	6th June	to	3rd July	29 „
„	7.	4th July	to	3rd August	31 „
„	8.	4th August	to	31st August	28 „
„	9.	1st September	to	1st October	31 „
„	10.	2nd October	to	30th October	29 „
„	11.	31st October	to	29th November	30 „
„	12.	30th November	to	23th December	29 „
„	13.	29th December	to	8th January	11 „
					365 days.

This would have resulted in the Nicobarese full year of two monsoons being completed in 383 days, and this reckoning would have brought about a muddle in the ensuing year, 1884, which does not as matter of fact occur.

It is to be observed that the S. W. monsoon was taken in that year as commencing on 7th May and the N. W. on 1st November, so that the S. W. Monsoon half year lasted 177 days and the N. W. about 188.

It is to be noted also that in Mr. de Roepstorff's calendar the *She* days are 10, the *Yam* days 10, and the *Tatlanga* days 5 in each month, while the odd dark nights run thus: for 1 month none, for 1 month 3, for 6 months 4, for 3 months 5, for 2 months 6 in the month.

CHAPTER IV.

LANGUAGES.

I. General Description.—History of the Study—Man's Enquiries into the Central Dialect—Philological Value — Dialects — Mutual Unintelligibility — Foreign Influence — Effect of Tabu on the Language — Method of Speech — A Highly Developed Analytical Language — Nature of Growth — Order of the Words — Difficult Etymology — Specimens of the Speech.

II. Grammar.—The Theory of Universal Grammar — Example of Sentences of One Word — Subject and Predicate — Principal and Subordinate Words — Functions of Words — Purpose of Sentence indicated by the Position of the Components — Order of the Words in the Sentences — Interrogatory Speech — Referent Substitutes (Pronouns) — Order of Connected Sentences — Expression of Connected Purposes — Expression of the Functions and Interrelation of Words — Connectors (Prepositions) — Connectors of Intimate Relation — Order of the Words is the Essence of the Grammar — Expression in Phrases — Numeral Coefficients — Elliptical Sentences — Analytical Nature of the Language — Order of Speech — Classification of Words depends primarily on Position in the Sentence — Phrases (Compound Words) classed as Words.

III. Etymology.—Classification of Words depends primarily on their Order in the Sentence — Classification of Words depends secondarily on Form—Form created by Radical Prefixes, Infixes, and Suffixes—Use of Radical Affixes, Agglutinated, Changed, and Inflected—Use of the Radical Affixes of Transfer — Correlated Radical Affixes of Transfer—Inflexion of Affixes—Duplication of Affixes—Connectors of Intimate Relation as Prefixes—Nature of Nicobarese Predicators (Verbs) — Expression of "Active" and "Passive" — Use of Radical Affixes of Differentiation—Working of Correlated Radical Affixes — In the "Comparative Degrees"—In expression of "Continuing Action"—In expression of Naturally Connected Words — In expression of Groups of Words round Ideas and Groups of Ideas round Words — Differentiating Radical Suffixes of Direction — Extreme Extension of the Use of the Radical Suffixes of Direction—In the General Expression of Time Past — In Interrogatives of Direction — Use of Terms for Parts of the Human Body as Supplementary Radical Affixes of Differentiation.

IV. Phonology.—Mode of Speech — Man's and de Roepstorff's Enquiries — Reduction of the Speech to Writing — Stress.

V. Comparison of Dialects.—Man's Enquiries—Comparison of Words — Comparison of Roots.

VI. Comparative Philology.—Comparison with the Indo-Chinese Languages — Elements of Uncertainty in the Comparison — Nicobarese Radically an Indo-Chinese Language.

I. General Description.

History of the Study.—The Nicobarese Language in the Central Dialect has been long since studied. Vocabularies, collections of sentences and partial Grammars of this Dialect have been made at intervals by various missionaries and others from 1711 onwards:—the two Jesuit Fathers Faure and Bonnet in 1711; Surgeon Fontana of the Austrian vessel *Josef und Theresia* in 1778, (pub. 1795); G. Hamilton in 1801; the Danish missionary Rosen in 1831-7; Fathers Chabord and Plaisant (in Teressa) in 1845; Fathers Barbe and Lacrampe in 1846; Dr. Rink in the Danish vessel *Galathea* in 1846; the Austrian *Novara* Expedition in 1857 (pub. in 1862), with additions by de Roepstorff and others under Colonel H. Man; Maurer in 1867; Mr. A. C. Man in 1869; comparative statement by V. Ball of all information up to 1869; Mr. E. H. Man in 1871 onwards; F. A. de Roepstorff in 1876 onwards; Dr. Svoboda of the Austrian *Aurora* Expedition, 1886 (pub. 1892).

Ten Vocabularies and a translation into the Central Dialect of 27 Chapters of the Gospel of St. Matthew were made by the Danish Moravian missionaries

(Herrnhuter) in 1768-87. These are still preserved in manuscript at Herrnhut, and were partially embodied in de Roepstorff's posthumous *Dictionary of the Nancowry (Central) Dialect*, 1884; a capital book with valuable appendices, requiring, however, retransliteration for English readers.

Man's Enquiries into the Central Dialect.—But the latest and best attempt to reproduce this Dialect is Mr. E. H. Man's *Dictionary of the Central Nicobarese Language*, 1889. This contains also a brief and valuable attempt at the Grammar and a Comparative Vocabulary of all the Dialects. The system of transcription adopted is the very competent one of the late Mr. A. J. Ellis. Mr. Man had the advantage of all the labours of his predecessors, together with a much longer residence in the islands than any of them and better means of locomotion. To these he has added the accuracy and care which distinguish all his work. In this Report, therefore, his book has been followed for the facts of the language and the forms of its words and all the examples given in it are culled from the great number of sentences he has recorded. For the mode of presentation I am, however, responsible, as Mr. Man attempted in his "Grammar" to explain the language exclusively from the current English view of Grammar, rather than to present its character as a scientific study.

The other Dialects only find a place in Mr. Man's studies and are still but little known, no one with sufficient scholarly equipment or inclination having ever resided on any of the islands for the time necessary to study them to the extent that has been possible at Nancowry.

Philological Value.—The Nicobarese speak one language, whose affinities are with the Indo-Chinese Languages, as represented nowadays by the Mon Language of Pegu and Annam and the Khmer Language of Cambodia amongst civilised peoples and by a number of uncivilised tribes in the Malay Peninsula and Indo-China. It has affinities also with the speech of the tribes in the Peninsula, who are generally classed as "wild Malays" (Orang-utan and Orang-bukit), so far as that speech has come under the old influence of the Indo-Chinese Languages. The Nicobarese language is thus of considerable value philologically, as preserving, on account of isolation and small admixture with foreign tongues for many centuries, the probable true basis for the philology of the Languages of the Indo-Chinese Family.

Dialects.—The language is spoken by 6,300 people in six dialects, which have now become so differentiated in details as to be mutually unintelligible, and to be practically, so far as actual colloquial speech is concerned, six different languages. These dialects are limited in range by the islands in which they are spoken :—

NICOBARESE DIALECTS.

1. Car Nicobar (pop. 3,451).
2. Chowra (pop. 522).
3. Teressa with Bompoka (pop. 702).
4. Central—Camorta, Nancowry, Trinkat, Katchall (pop. 1,095).
5. Southern—Great Nicobar Coasts and Kondul, Little Nicobar and Pulo Milo (pop. 192).
6. Shom Pen—inland tribe of Great Nicobar (pop. 348).

Mutual Unintelligibility.—Although it can be proved that the Nicobarese Language is fundamentally one tongue, yet the hopeless unintelligibility of the dialect of one island to the ear of the people of another may be shown by the following example :—

CAR NICOBAR.

om	*paiakua*	*dra*	*chain*	*ka*	*tarik*
don't	afraid	not	I	eat	man

CENTRAL.

wot	*men*	*pahoa*	*chit*	*okngok*	*ten*	*paiyuh*
don't	you	afraid	I-not	eat	to	man

SENSE OF BOTH.

Don't be afraid ! I don't eat men ! (I am not a cannibal).

Foreign Influence.—In spite of the aptitude of the people for picking up

such foreign tongues as they hear spoken, quite a few foreign words have been adopted into their speech. Examples are :—

FROM PORTUGUESE.

English.	Nicobarese.	English.	Nicobarese.
boot	shapato	cask	pipa
book, paper	lebare	elephant	lifonta
hat	shapeo	rupee	rupia
copper money	Santa Maria	shaman, sorcerer	pater
"God"	Deuse, Reos		

FROM HINDUSTANI.

salt	shal, sal		

FROM MALAY.

cup	mongko	evil spirit	iwipot
buffalo	kapo	fowl	haiyam
cat	koching		

Only a century ago Portuguese was the trade language of the islands, with a sprinkling of Danish, German, and English. Malay and Chinese were both so before the Portuguese day, and now English, Burmese, and Hindustani are well understood. Indeed, the nature of the trade at any given island can be tested by the foreign languages best understood there. *E.g.*, on Car Nicobar, Burmese is best understood, and then English and Hindustani : Malay and the other Nicobarese dialects not much. On Chowra, Hindustani, Tamil, Malay, and English are spoken, and generally also the other Nicobarese dialects, except Shom Pen. On Teressa, Malay, Burmese, and English are the languages with the dialects of Chowra and the Central Group. In the Central Group they talk Hindustani, Malay, Burmese, English, and Chinese with the dialects of the South and Teressa. In the Southern Group they talk Malay, Hindustani, Chinese, and English with the Central Dialect.

The women know only their own dialect, and are dumb before all strangers. And here, as elsewhere among polyglot peoples, natives of different islands sometimes have to converse in a mutually known foreign tongue (*e.g.*, Hindustani, Burmese, Malay, or English), when unable to comprehend each other's dialects.

Effect of Tabu on the Language.—There is a custom of tabu, which in the Nicobars, as elsewhere when it is in vogue, has seriously affected the language at different places, at least temporarily. Any person may adopt any word, however essential and common, in the language as his or her personal name, and when he or she dies it is tabued for a generation, for fear of summoning the ghost. In the interval a synonym has to be adopted and sometimes sticks, but that this is not very often the case is shown by a comparison of the Vocabularies published or made in 1711, 1787, 1876, and 1889, which prove that the language possesses a stability that is remarkable in the circumstances of its being unwritten and therefore purely colloquial, spoken by communities with few opportunities of meeting, and subject to the changing action of tabu.

Method of Speech.—The Nicobarese speech is slurred and indistinct, but there is no abnormal dependence on tone, accent, or gesture to make the meaning clear. The dialects are, as might be expected, rich in specialised words for actions and concrete ideas, but poor in generic and abstract terms.

A Highly Developed Analytical Language.—Nicobarese is a very highly developed Analytical Language, with a strong resemblance in grammatical structure to English. It bears every sign of a very long continuous growth, both of syntax and etymology, and is clearly the outcome of a strong intelligence constantly applied to its development. Considering that it is unwritten and but little affected by foreign tongues, and so has not had extraneous assistance in its growth, it is a remarkable product of the human mind. There is no difference in the development of the different dialects. That of the wild Shom Pen is as "advanced" in its structure as the speech of the trading Car-Nicobarese.

Nature of Growth.—The growth of the language has been so complicated, and so many principles of speech have been partially adopted in building it up, that nothing is readily discoverable regarding it. The subject and predicate are not at once perceptible to the grammarian, nor are principal and subordinate sentences. The sentences, too, cannot at once be analysed correctly, nor can the roots of the words without great care be separated from the overgrowth. Neither syntax nor etymology are easy, and correct speech is very far from being easily attained.

Order of the Words.—Grammatically the point to bear in mind is the order of the words, which is practically the English order, especially as functional inflexion is absent to help the speaker to intelligibility, and there is nothing in the form of the words to show their class, whether nouns, verbs, adjectives, and so on. Prepositions, conjunctions, auxiliaries, adverbs, and the "particles" of speech are freely used, and so are elliptical sentences. Compound words and phrases, consisting of two or more words just thrown together and used as one word, are unusually common, and the languages show their Far-Eastern proclivities by an extended use of "numeral coefficients."

Difficult Etymology.—The great difficulty in the language lies in the etymology. Words are built up of roots and stems, to which are added prefixes, infixes, and suffixes, both to mark the classes of connected words and to differentiate connected words when of the same class, *i.e.*, to show which of two connected words is a verb and which a noun, and to mark the difference in the sense of two connected nouns, and so on. But this differentiation is always hazily defined by the forms thus arrived at, and the presence of a particular classifying affix does not necessarily define the class to which the word belongs. So also the special differentiating affixes do not always mark differentiation.

Again the affixes are attached by mere agglutination, in forms which have undergone phonic change, and by actual inflexion. Their presence, too, not unfrequently causes phonic change in, and inflexion of, the roots or stems themselves.

The chief peculiarity of the language lies in a series of "suffixes of direction," indicating the direction (North, South, East, West, above, down, below, or at the landing-place) action, condition or movement takes place. But even suffixes so highly specialised as these are not by any means only attached to words, the sense of which they can and do affect in this way.

It is just possible that "North=up there: South=down there: West=below: East=in towards" have reference to the original migrations of the people, because the general direction of a migration, still in steady progress, of half civilised tribes of considerable mental development on the Northern Burmese frontiers is North to South regularly. But this point would require proof.

It is thus that only by a deep and prolonged study of the language, one can learn to recognise a root, or to perceive the sense or use of an affix, and only by a prolonged practice could one hope to speak or understand it correctly in all its phases. Nicobarese is, in this sense, indeed a difficult language.

Specimens of the Speech.—The following sample sentences in the Central Dialect will sufficiently exhibit the manner of Nicobarese speech.

The abbreviation c. i. r. = connector of intimate relation, a point to be explained later on. By translating it "in respect of" the sense of the Nicobarese sentences in which it occurs becomes clear.

SAMPLE SENTENCES IN THE CENTRAL DIALECT.

1

ane	*inoat*	*lamang*	*ten*	*chua*
that	knife	belong	to	I

(that knife belongs to me).

2

inoat	*ta*	*shong*	*ot*
knife	c. i. r.	sharp	is

(the knife is sharp).

3

anre	*ane*	*noang*	*shanen*	*kwomhata*	*ten*	*chua*
both	that	thing	spear	give	to	I

(give me both those spears).

4

iteak	*poatore*	*kamheng*	*en*	*an*
sleep	always	noon	c. i. r.	he

(he is always asleep at noon: the Nicobarese idiom is however really "noon (is) always asleep for him").

5

an	*chuh*	*harra*	*halau*	*loe*	*kan*	*de*
he	go	see	buy	cloth	wife	own

(he has gone to see about buying cloth for his wife).

6

leat	*etchai—chaka—lebare*	*chua*	*oal*	*kaiyi*	*de*
did	greet—face—paper (read aloud)	I	in	road	own

(I read it aloud while I was travelling).

7

etchai—chaka—lebare	*chua*	*tanang*	*ta*	*an*
read—aloud	I	arrived	from-somewhere	he

(he arrived while I was reading aloud).

8

harra	*ta*	*chau*	*de*	*ta*	*finowa*	*tai*
see	c. i. r.	elder-brother	own	c. i. r.	beat	by

chia	*an*	*kenyum*	*leat*	*chim*
father	it (the)	child	did	cry

(the child cried on seeing its elder brother beaten by its father).

9

chua	*finowa*	*tai*	*an*	*ta*	*ong*	*olhaki*
I	beat	by	he	c. i. r.	past-of-to-day	morning

(I was beaten by him this morning).

10

paitshe	*shi*	*loe*	*ot*	*ta*	*ofe*
some	old	cloth	is	c. i. r.	they

(they have some old cloth).

11

katom?	*yuang*	*kamatoka*	*kakat?*	*ta*	*wahe*
how-many?	persons	dancers	were?	c. i. r.	last-night

(how many dancers were there last night?)

12

an	*hat*	*koan*	*men*
he	not	child	you

(he is not your child).

13

oal	*hoptep*	*men*	*ta*	*ngong*
in	box	you	c. i. r.	nothing

(there is nothing in your box).

14

ane	*kanyut*	*halau*	*men*	*longto-ten*	*chi?*
that	coat	buy	you	from	who?

(from whom did you buy that coat?)

15

chua	*oklakngato*	*an*	*kato*	*ta*	*ñi*	*chua*
I	permit	he	live	c. i. r.	hut	I

(I let him live in my hut).

16

chua	*leap*	*kichal*
I	can	swim

(I can swim).

17

linhen	*chit*	*leap*	*okngok*	*taina*	*tu*
to-day	I-not	can	eat	because	sick

(I cannot eat to-day because I am sick).

II. Grammar.

The Theory of Universal Grammar.—I will now proceed to discuss the Nicobarese Language on the lines of the Theory of Universal Grammar already explained, using the Central Dialect for the purpose, and avoiding diacritical marks, except where necessary to the context. The familiar grammatical terms will be inserted in brackets beside the novel ones used, whenever necessary, in order to make statements clear in a familiar manner.

Example of Sentences of One Word.—The Nicobarese, like all other peoples, can express a complete meaning or sentence by an integer or single word, or by a phrase representing a single word: but they do not use this form of speech to excess. Thus:—

English.	Central Dialect.
oh (astonishment)	weē, oyakarē
alas	aiyakarē
oh (pain)	are
dear me (compassion)	ōh
ah (dislike)	shesh
ugh (disgust)	hu*n*h-hu*n*h-hu*n*h
hush	äh-äh-äh
tut (rebuke)	e*n*-e*n*-e*n*-e*n*
pooh	hāsh
hurrah, bravo	hâ-ha-a-a
lor	tochangtô
there (annoyance)	hah-ā-a
what a pity	höh
go on (encouragement)	shīal
there's no saying	a*n*yapa
who knows	a*n*yachü
what's that ?	kashī ?
thingummy (doubt)	chinda
thingembob (doubt)	chūanda

In the above words *italicised n* denotes a nasal.

Subject and Predicate.—Nicobarese sentences, when of more than one word, are usually, but not always, clearly divided into subject and predicate, as can be seen from an examination of the sample sentences above given. Thus:—

P = predicate : S = subject. The numbers below refer to the sample sentences.

(1) ane (S) inoat (S) lamang (P) ten (P) chua (P).
(2) inoat (S) ta (S) shong (S) ot (P).
(3) anre (P) ane (P) noang (P) shanen (P) komhata (P) ten (P) chua (P). (S not expressed).
(5) an (S) chuh (P) harra (P) halau (P) loe (P) kan (P) de (P).
(6) leat (P) etchai-chaka-lebare (P. phrase) chua (S) oal (P) kaiyi (P) de (P).
(7) etchai-chaka-lebare (P. phrase) chua (S) tanang (P) ta (P) an (S).
(8) harra-ta-chau-de-ta-finowa-tai-chia (S. phrase) an (S) kenyum (S) leat (P) chim (P). (Here "*harra*—etc.—*chia*" is a phrase, "see (ing) elder-brother beaten by father," in the subject part of the sentence.)
(9) chua (S) finowa (P) tai (P) an (P) ta (P) ong (P) olhaki (P).
(10) paitshe (S) shi (S) loe (S) ot (P) ta (P) ofe (P).
(11) katom (S) yuang (S) kamatoka (S) kakat (P) ta (P) wahe (P).
(12) an (S) hat (P) koan (P) men (P).
(14) ane (P) kanyut (P) halau (P) men (S) longtoten (P) chi (P).
(15) chua (S) oklakngato (P) an (P) kato (P) ta (P) ñi (P) chua (P).
(16) chua (S) leap (P) kichal (P).
(17) linhen (P) chit (S) leap (P) okngok (P) taina (S) tu (P).

Two of the sample sentences present a peculiarity in expressing Subject and Predicate:—

(4)	*aiteak*	*poatore*	*kamheng*	*en*	*an*
	asleep	always	noon	c. i. r.	he

This can be properly and directly translated, "he is always asleep at noon;" but the Nicobarese idiom runs in English, "noon is always asleep for him," the predicator (verb) "is" being unexpressed. So that the sentence is properly divided thus:—*iteak* (P) *poatore* (P) *kamheng* (S) *en* (P) *an* (P).

(13)	*oal*	*hoptep*	*men*	*ta*	*ngong*
	in	box	you	c.i.r.	nothing

Here we have both Subject and Predicate in an elliptical form, and in English, though translatable at once as "there is nothing in your box," the sentence really runs "(the contents, *not expressed*) in your box (are, *not expressed*) as nothing." So that neither the Subject nor the Predicator (verb) are expressed, but we have instead merely a phrase explaining the subject placed in apposition to another phrase illustrating the predicate. The sentence, in fact, as it stands consists of an explicator (adjective) phrase, placed in apposition to an illustrator (adverb) phrase, and is divided elliptically thus:—*oal-hoptep-men* (S) *ta-ngong* (P).

Principal and Subordinate Words.—The words in the sample sentences are also clearly, but not readily, divisible into principal and subordinate. Thus :—

(1) *ane* (sub.) *inoat* (prin.) in the subject: *lamang* (prin.) *ten-chua* (sub.) in the predicate.
(2) *inoat* (prin.) *ta-shong* (sub.) in the subject.
(3) all the words are sub. to *kwomhata* in the predicate.
(4) *itaek poatore en-an* are all sub. to a predicator (verb) unexpressed.
(5) *loe kan de* are all sub. to *chuh-harra-halau* (prin.) in the predicate.
(6) *leat* (sub.) *etchai-chaka-lebare* (prin.) *oal-kaiyi* (sub.).
(7) here are two separate sentences : — the first has one word in each part, and in the second *ta* is sub. to *tamang* in the predicate. In full analysis the first sentence is an illustrator (adverb) phrase illustrating the predicator (verb) in the second.
(8) in the subjective part *harra-ta-chau-de-ta-finowa-tai-chia* and *an* are sub. to *kenyum* and so is *leat* to *chim* in the predicate.
(9) all the words in the predicate are sub. to a predicator (verb) unexpressed.
(10) *paitshe* and *shi* are sub. to *loe* in the subject and *ta-ofe* to *ot* in the predicate.
(11) *katom-yuang* are sub. to *kamatoka* in the subject and *ta-wahe* to *kakat* in the predicate.
(12) all the words in the predicate are sub. to a predicator (verb) unexpressed.
(13) in this sentence *oal-hoptep-men* are sub. to an indicator (noun) unexpressed in the subject and *ta-ngong* to a predicator (verb) unexpressed in the predicate. The whole of the words actually expressed are thus subordinate.
(14) all the words in the predicate are sub. to *halau*.
(15) all the words in the predicate are sub. to *oklakngato*.
(16) *leap* is sub. to *kichal* in the predicate.
(17) here again are two sentences joined by *taina*, because. In the first *linhen* and *leap* are sub. to *okngok* in the predicate. In the second *taina* is sub. to *chua* (I) unexpressed in the subject, and *tu* to a predicator (verb) unexpressed in the predicate.

Functions of Words.—The next stage in analysis is to examine the functions of the words used in the sample sentences, and for this purpose the following abbreviations will be used :—

ABBREVIATIONS USED.

int.	integer
in.	indicator
e.	explicator
p.	predicator
ill.	illustrator
c.	connector
intd.	introducer
r. c.	referent conjunctor
r. s.	referent substitute
c. in.	complementary indicator
c. e.	complementary explicator
c. ill.	complementary illustrator

The sample sentences can then be further analysed thus :—

(1) *ane* (e.) *inoat* (in.) *lamang* (p.) *ten* (c.) *chua* (r. s. as c. in.).
(2) *inoat* (in.) *ta* (c.) — *shong* (e., the whole an e. phrase) *ot* (p.).
(3) *anre* (c. e.) *ane* (c. e.) *noang* (c. e.) *shanen* (c. in.) *kwomhata* (p.) *ten* (c.) — *chua* (r. s. as in.) the whole an ill. phrase).
(4) *iteak* (e.) *poatore* (ill.) *kamheng* (in.) *en* (c.) *an* (r. s. as in.) : (*iteak-poatore-en-an-* form an ill. phrase).
(5) *an* (r. s. as in) *chuh* (p.) — *harra* (p.) — *halau* (p., the whole a p. phrase) *loe* (c. in.) *kan* (in.) — *de* (e., the whole an e. phrase).
(6) *leat* (p.) — *etchai* (p.) — *chaka* (c. in.) — *lebare* (c. in., the whole a p. phrase) *chua* (r. s. as in.) *oal* (c.) — *kaiyi* (in.) — *de* (e., the whole an e. phrase).
(7) *etchai* (p.) — *chaka* (c. in.) — *lebare* (c. in.) — *chua* (r. s. as in., the whole an ill. phrase) *tanang* (p.) *ta* (ill.) *an* (r. s. as in.).
(8) *harra* (p.) — *ta* (c.) — *chau* (c. in.) — *de* (c. e.) — *ta* (c.) — *finowa* (e.) — *tai* (c.) *chia* (in., the whole an e. clause) *an* (e.) *kenyum* (in.) *leat* (p.) — *chim* (p., the whole a p. phrase).
(9) *chua* (r. s. as in.) *finowa* (e.) — *tai* (c.) — *an* (r. s. as in., the whole an e. phrase) *ta* (c.) — *ong* (e.) — *olhaki* (in., the whole an ill. phrase).
(10) *paitshe* (e.) *shi* (e.) *loe* (in.) *ot* (p.) *ta* (c.) — *ofe* (r. s. as in., the whole an ill. phrase).
(11) *katom* (e.) — *yuang* (e., the whole an e. phrase) *kamatoka* (in.) *kakat* (p.) *ta* (c.) — *wahe* (in., the whole an ill. phrase).
(12) *an* (r. s. as in.) *hat* (e.) *koan* (c. in.) *men* (e.).

(13) *oal* (c.) — *hoptep* (in.) — *men* (r. s. as e., the whole an e. phrase of subject unexpressed) *ta* (c.) — *ngong* (in., the whole an ill. phrase of predicate unexpressed).
(14) *ane* (c. in.) *kanyut* (c. in.) *halau* (p.) *men* (r. s. as in.) *longtoten* (c.) — *chi* (r. s., the whole an ill. phrase).
(15) *chua* (r. s. as in.) *oklakngato* (p.) *an* (r. s. as in.) — *kato* (p., the whole c. in. phrase) *ta* (c.) — *ñi* (in.) — *chua* (r. s. as e., the whole an ill. phrase).
(16) *chua* (r. s. as in.) *leap* (p.) — *kichal* (p., the whole a p. phrase).
(17) *linhen* (ill.) *chit* (r. s. as in.) *leap* (p.) — *okngok* (p., the whole a p. phrase) *taina* (r. c.) *tu* (e.).

Purpose of Sentence indicated by the Position of the Components.—It will be seen that the purposes of the sentences thus analysed are as under :

(1) Affirmation :—Nos. 1, 2, 15, 16, 17.
(2) Denial : —Nos. 12, 13.
(3) Interrogation :—Nos. 11, 14.
(4) Exhortation :—No. 3.
(5) Information :—Nos. 4, 5, 6, 7, 8, 9, 10.

The sample sentences cover, therefore, the whole range of all speech as regards purpose, and analysis shows that the Nicobarese rely on the position of the words in the sentence to indicate its purpose, that no special order is observed for differentiating any particular purpose, and that the position of the words is in their language of the greatest importance for the intelligibility of the sentences. That is, Nicobarese is a language that indicates purpose mainly by the position of the components of the sentences.

Order of the Words in the Sentences.—Another analysis of the sample sentences will, therefore, now be made to show what the order of the words in Nicobarese sentences is.

I

Subject precedes predicate, but for emphasis can follow it :

Preceding :

(1) *ane-inoat* (S) *lamang-ten-chua* (P).

and so always, except

(6) *leat-etchai-chaka-lebare* (P) *chua-oal-kaiyi-de* (S).
(7) *etchai-chaka-lebare-chua-tanang-ta* (P) *an* (S).

II

Subject, predicate, complement (object).

(1) *ane-inoat* (S) *lamang* (P) *ten-chua* (C).

But the order is reversed for emphasis.

(3) *anre-ane-noang-shanen* (C) *kwomhata-ten-chua* (P., S. unexpressed.)
(14) *ane-kanyut* (C) *halau* (P) *men* (S) *longtoten-chi?* (P).

III

Explicator (adjective) precedes indicator (noun) ; or follows it, usually with a connector (preposition), but also without a connector, thus :

(a) Preceding indicator (noun) :

(1) *one* (e.) *inoat* (in.) *lamang ten chua.*
(3) *anre* (e.) *ane* (e.) *noang* (e.) *shanen* (in.) *kwomhata ten chua.*
(4) *iteak* (e.) *poatore* (ill.) *kamheng* (in.) *en an.*
(5) *paitshe* (e.) *shi* (e.) *loe* (in.) *ot ta ofe.*

(b) Following indicator (noun) with connector :

(2) *inoat* (in.) *ta* (e.) *shong* (e.) *ot.*

(c) Following indicator without connector :

(5) *an chuh harra halau loe kan* (in.) *de* (e.).
(9) *chua* (in.) *finowa* (e.) *tai an ta ong olhaki.*
(12) *an* (in.) *hat* (e.) *koan* (in.) *men* (e.).
(13) *oal hoptep* (in.) *men* (e) *ta ngong.*

(d) Following indicator (noun) with and without connector :

(8) *harra ta chau* (in.) *de* (e. without c.) *ta* (c.) *finowa* (e.) *tai chia an kenyum leat chim.*

IV

Illustrators (adverbs) usually follow, but sometimes precede, predicators (verbs).

(a) follow:

(3) *anre ane noang shanen kwomhata* (p.) *ten-chua* (ill. phrase).
(5) *an chuh-harra-halau* (p.) *loe kan-de* (ill. phrase).
(10) *paitshe shi loe ot* (p.) *ta-ofe* (ill. phrase).
(11) *katom yuang kamatoka kakat* (p.) *ta-wahe* (ill. phrase).
(14) *ane kanyut halau* (p.) *men longtoten-chi* (ill. phrase).

(b) precede:

(7) *etchai-chaka-lebare-chua* (ill. phrase) *tanang* (p.) *ta* (ill.) *an.*
(17) *linhen* (ill.) *chit leap-okngok* (p.).

But illustrators (adverbs) follow explicators (adjectives).

(4) *iteak* (e.) *poatore* (ill.) *kamheng an en.*
(9) *chua-finowa-taia-an* (e. phrase) *ta-ong-olhaki* (ill. phrase).
(13) *oal-hoptep-men* (e. phrase) *ta-ngong* (ill. phrase).

V

Connectors (prepositions) precede the words they connect with preceding words.

(a) connecting predicator (verb) with complement (object).

(1) *ane inoat lamang* (p.) *ten* (c.) *chua* (C).
(3) *anre ane noang shanen kwomhata* (p.) *ten* (c.) *chua* (C).
(8) *harra* (p.) *ta* (c.) *chau* (C) *de ta finowa tai chia an kenyum leat chim.*

(b) connecting predicator (verb) with illustrator (adverb).

(4) *iteak poatore kamheng en* (c.) *an* (r. s. for ill. phrase). (p. unexpressed).
(9) *chua finowa tai an ta* (c.) *ong-olhaki* (ill. phrase).
(10) *paitshe shi loe ot* (p.) *ta* (c.) *ofe* (r. s. for ill. phrase).
(11) *katom yuang kamatoka kakat* (p.) *ta* (c.) *wahe* (ill).
(13) *oal hoptep-men ta* (c.) *ngong* (in. as an ill. phrase) : (here ill. is connected with p. unexpressed).
(14) *an kanyut halau* (p.) *men longtoten* (c.) *chi* (r. s. for ill. phrase).
(15) *chua oklakngato an kato* (p.) *ta* (c.) *ñi-chua* (ill. phrase).

(c) connecting indicator (noun) with explicator (adjective).

(2) *inoat* (in.) *ta* (c.) *shong* (e.) *ot.*
(6) *leat-etchai-chaka-lebare-chua* (in.) *oal* (c.) *kaiyi-de* (e. phrase).
(8) *harra ta chau-de* (in.) *ta* (c.) *finowa* (e.) *tai chia an kenyum leat chim.*
(15) *oal* (c.) *hoptep-men* (e. phrase connected with in. unexpressed) *ta ngong.*

(d) connecting explicator (adjective) with illustrator (adverb).

(8) *harra ta chau de ta finowa* (e.) *tai* (c.) *chia* (in.) *an kenyum leat chim.*
(9) *chua finowa* (e.) *tai* (c.) *an* (in.) *ta ong olhaki.*

VI

Referent conjunctors (conjunctions) commence a sentence connected with a previous one.

(17) *linhen chit leap okngok* (first sentence) *taina* (r. c.) *tu* (second sentence).

paiyuh	*hat*	*doh*	*katoka*	*hen* (r. c.)	*mikasha*
man	not	can	dance (first sentence)	when	sing

hoi-haki
solemn-chaunt (second sentence).
(one may not dance when singing the solemn chaunt).

VII

Interrogatory Speech.—Introducers (adverbs) commence sentences

kahe	*na*	*ita ?*
when	he	here ? (p. unexpressed).

(when will he be here ?)

chi	*yo*	*haiyuan ?*
who	wish	pig-hunt ?

(who is going to hunt pigs ?)

chun *oñihan* *ongfwang* *en* *chua?*
which tree cut-down c. i. r. I ?
(which tree shall I cut down?)

chin *leang* *an?*
what name *he*?
(what is his name?)

chuang *leang* *an?*
what name it ?
(what is its name?)

Questions are, however, usually asked by means of an interrogatory prefix, *ka*, *ká*, *kan*, meaning "what?", attached to the subject of the sentence. In every such case the usual place of the subject is not changed. *E. g.*,—

tau *men* *ká—an?*
younger-brother you he ?
(is he your younger-brother?)

shwatare *ka—men?* *ta* *linhen*
return you? c. i. r. morning
(will you return this morning?)

makngayan *ka-en—koan?* *men*
quite-well c. i. r. child? you
(is your child quite well?)

mah *ka—met?* *heang* *shua* *men* *Loöng*
ever you-not? one time you Great Nicobar
(have you never once been to Great Nicobar?)

As in many languages, there is an interrogative introducer (adverb) *an*, which expects an affirmative answer. *E. g.*,—

an? *na* *tau* *men*
yes? he younger-brother you
(isn't he your younger brother?)

an? *men* *iteakla* *ta* *linhen*
yes? you drowsy c. i. r. morning
(aren't you drowsy this morning?)

an? *men* *heang*
yes? you one
(didn't you get anything?)

The following uses of *ka*, when prefixed to a word, show the system of the Nicobarese language well.

men *itua* *Loöng* *ka-hanan?*
you visit Great-Nicobar no ?
(will you visit Great-Nicobar or not?)

men *hen* *ka-an?* *ka-hanan?*
you see yes? no ?
(you saw it, didn't you?)

an? *ka-men?* *yiangan* *chua* *olyol* *an* *ka-hanan?*
yes? you? with I say yes no ?
(are you coming with me? say, "yes or no.")

VIII

Referent Substitutes (Pronouns).—Referent substitutes (pronouns) follow the place of their originals.

(1) *ane inoat lamang ten chua* (r. s. as in.).
(4) *iteak poatore kamheng en an* (r. s. as ill. phrase).
(5) *an* (r. s. as in.) *chuh harra halau loe kan de.*
(8) *an* (r. s. as e.) *kenyum leat chim.*
(9) *chua finowa tai an* (r. s. as ill. phrase) *ta ong olhaki.*
(10) *paitshe shi loe ot ta ofe* (r. s. as ill. phrase).
(12) *an* (r. s. as in.) *hat koan men.*
(13) *oal hoptep men* (r. s. as e.).
(15) *chua oklakngato an* (r. s. as in.) *kato ta ñi chua* (r. s. as e.).
(16) *chua* (r. s. as in.) *leap kichal.*
(17) *linhen chit* (r. s. as in.) *leap okngok taina tu.*

The ordinary referent substitutes (pronouns) are :

TABLE OF "PERSONAL PRONOUNS."

chua	I
men	thou, (you)
an, na	he, she, it
hen, chaai	we-two
he, chioi	we
iña	you-two
ife	you
ona	they-two
ofe	they

Chua, men, an are ordinarily inflected also to *cha, me, eh*. *E. g.*,

hendun	*ta*	*eh*
awake	c. i. r.	he
(awake him)		

There is further inflexion of all the "personal pronouns" with *hat*, not, in negative sentences. Thus—

TABLE OF NEGATIVE "PERSONAL PRONOUNS."

chit	I-not
met	thou-not
net (and *hat*)	he-not
hen-hat	we-two-not (in full, to distinguish from)
het	we-not
iñat	you-two-not
ifet	you-not
onat	they-two-not
ofat	they-not

Inflexion of some of these words appears again in the questions used when startled. Thus—

chūa ? kane ? what ? that ? (what was that ? (ka-ne ? = ka ? + ane)
chūa ? kiña ? what ? you-two ? (what was that ?) (kiña ? = ka ? + iña)
chūa ? kife ? what ? you ? (what was that ?) (kife ? = ka ? + ife)

So, too, in greetings : *et-chai-chaka* (greet-face), greet ; then (*et-*) *chai-chachā-ka* (greet-face-indeed), or (*et-*) *chai-cha-rakat* (greet-face-now). Then further,

met-chai° ? how d'you do ? (met = men + et)
iñat-chai° ? how d'you do, you two ? (iñat = iña + et)
ifet-chai° ? how d'you do, all of you ? (ifet = ife + et)

Another common inflexion of the same type may be noticed here, though it does not belong to this place : *wot*, don't, for *wi-hat* (do-not).

Order of Connected Sentences.—Connected sentences are usually joined by referent conjunctors (conjunctions) and in such cases the principal sentence is followed by the subordinate.

(17) *linhen chit leat okngok* (principal sentence) *taina* (r. c.) *tu* (subordinate sentence).

ata	*men*	*milak*	*laok*	*taina*	*chua*	*yo*
go	you	play	outside (prin. sentence)	because	I	wish

iteak
sleep (sub. sentence)

(go and play outside, because I want to sleep)

paiyuh	*hat*	*doh*	*katoka*	*hen*	*ikasha*
man	not	can	dance (prin. sentence)	when	sing

hoi-haki
solemn-chaunt (sub. sentence).

(one cannot dance, when singing the solemn chaunt)

Referent substitutes (pronouns) are often, though not always, used in both of two consecutive sentences.

Thus :—

ka, who, which,
chichi ya, whoever
kal, whatever
} in the prin. sentence with *shina*, the same, in the sub. sentence.

Except when thus used *shina* should therefore be regarded as a referent conjunctor (conjunction).

Expression of Connected Purposes.—But the tendency of the Nicobarese in indicating connected purposes by speech is to treat the subordinate sentence as an integral part of the principal, and to avoid breaking up speech into separate sentences connected by referent conjuctors (conjunctions). *E.g.*,—

(6)	*leat*	*etchai-chaka-lebare*	*chua*	*oal*	*kaiyi*	*de*
	did	read-aloud	I	in	road	own

There are two connected purposes in the sentences of this statement: (1) "I read aloud," (2) "while I was travelling." But the Nicobarese treats them as one by turning the subordinate sentence *oal-kaiyi-de* into an explicator (adjective) phrase attached to the subject "*chua*, I."

(7)	*etchai-chaka-lebare*	*chua*	*tanang*	*ta*	*an*
	read-aloud	I	arrive	from-somewhere	he

Here the two connected purposes of the statement are more apparent. The information is (1) "I was reading aloud," (2) "he arrived from somewhere." But the Nicobarese has treated the subordinate sentence *et-chai-chaka-lebare chua* as an illustrator (adverb) phrase of the principal sentence *tanang ta an*.

(8)	*harra*	*ta*	*chau*	*de*	*ta*	*finowa*	*tai*	*chia*
	see	c. i. r.	elder-brother	own	c. i. r.	beat	by	father
	an	*kenyum*	*leat*	*chim*				
	the	child	did	cry				

Here we have (1) "the child cried." (2) "on seeing his elder-brother beaten by his father." But the subordinate sentence *harra ta chau de ta finowa tai chia* is treated by the Nicobarese as an explicator (adj.) phrase of the subject *an kenyum*.

Expression of the Functions and Interrelation of Words.—It will have been observed that the Nicobarese express the interrelation of the components of their sentences by functional connectors (in their case prepositions), which form, therefore, an important part of their speech. Thus—

(1)	*lamang*	*ten*	*chua*					
	belong	to	I					
(2)	*inoat*	*ta*	*shong*	*ot*				
	knife	c. i. r.	sharp	is				
(3)	*kwomhata*	*ten*	*chua*					
	give	to	I					
(4)	*iteak*	*kamheng*	*en*	*an*				
	asleep	noon	c. i. r.	he (is)				
(6)	*leat*	*etchai-chaka-lebare*	*chua*	*oal*	*kaiyi*	*de*		
	did	read-aloud	I	in	road	own		
(7)	*harra*	*ta*	*chau*	*de*	*ta*	*finowa*	*tai*	*chia*
	see	c. i. r.	elder-brother	own	c. i. r.	beat	by	father
(8)	*chua*	*finowa*	*tai*	*an*	*ta*	*ong*		*olhaki*
	I	beat	by	he	c. i. r.	past-of-to-day		morning
(9)	*paitshe*	*shi*	*loe*	*ot*	*ta*	*ofe*		
	some	old	cloth	is	c. i. r.	they		
(10)	*katom*	*yuang*	*kamatoka*	*kakat*	*ta*	*wahe*		
	how-many?	persons	dancers	were	c. i. r.	last-night		
(13)	*oal*	*hoptep*	*men*	*ta*	*ngong*			
	in	box	you	c. i. r.	nothing			
(14)	*ane*	*kanyut*	*halau*	*men*	*longtoten*	*chi*		
	that	coat	buy	you	from	who		
(15)	*chua*	*oklakngato*	*an*	*kato*	*ta*	*ñi*	*chua*	
	I	permit	he	live	c. i. r.	hut	I.	

Connectors (Prepositions).—The functional connectors (prepositions) and connector-phrases are necessarily numerous and their use quite simply expressed. The commonest are—

TABLE OF "PREPOSITIONS."

Central Dialect.	English.	Central Dialect.	English.
ten, an, ta, tatai	to, at, on (object)	yô	to (place)
tai	by	en, at, kat	at
oal, ol	in	enyah	after
yol, yiang, hokaio	with	hat, taihit, hatyol hatyiangan	without

Central Dialect.	English.	Central Dialect.	English.
longto, longtoten, ngatai, yanga longtota, chaka, lamongtotai	from	kai	concerning
ngashi	about, in relation to	yona-ta-kae	for, account of, sake of
henshat-kae	for, place of	heangechuk	among
mongyuangñe	between	tatashiak	along-side
tanuak	beneath	haroh-tomtare	except
oyuhta	till, until	tamang	as-far-as
ta-tangtatai, heangetai	as-well-as	tamat	during
		yohñe	through (a solid)
okalhare	across	oakñe	through a fluid.

A good example of their use is the following :—

an	*okaihanga*	*powah*	*longtota*	*oal*	*due*	*chua*
he	took-away-south	paddle	from	in	canoe	I

[he took away to the South the paddle out of (from inside of) my canoe].

Connectors of Intimate Relation.—The only class of connectors (prepositions) that presents any difficulties is that of the connectors of intimate relation. These are *ta, en, pan* and may be translated "in respect of, as, as for, as to, regarding, as regards, with reference to, concerning, for" according to the context. They are used for connecting :

(1) indicator (noun) with its explicator (adj.)
(2) subject and its predicate.
(3) explicator (adj.) with its illustrator (adv.)
(4) predicator (verb) and its complement (object).

(1) indicator (noun) with its explicator (adj.)

inoat	*ta*	*shong*	*ot*
knife		sharp	is

(the knife is sharp).

paiyuh	*ta*	*uruhatshe*	*dak*
man		many	come

(many men came).

kenyum	*tai*	*an*	*ta*	*finowa*
child	by	he		beat

(the child was beaten by him).

(2) subject and its predicate.

yuchuh	*pan*	*chua*
go-home		I

(I am going home).

paitshe	*homkwoa*	*en*	*men*	*ten*	*chua*
some	give		thou	to	I

(give me some).

oal	*hoptep*	*men*	*ta*	*ngong*
in	box	you		nothing

(there is nothing in your box).

(3) explicator (adj.) with its illustrator (adv.).

iteak	*kamheng*	*en*	*an*
asleep	noon		he

(noon is asleep for him, *i. e.*, he sleeps at noon).

chua	*finowa*	*tai*	*an*	*ta*	*ong*	*olhaki*
I	beat	by	he		past-of-to-day	morning

(I was beaten by him this morning).

hat	*ot*	*loe*	*ta*	*oal*	*hoptep*	*an*
not	is	cloth		in	box	he

there is no cloth in his box).

(4) predicator (verb) and its complement (object).

harra	*ta*	*chau*	*de*
see		elder-brother	own

(seeing the elder brother).

paitshe	*shi*	*loe*	*ot*	*ta*	*ofe*
some	old	cloth	is		they

(they have some old cloth).

wi	*an*	*en*	*ta*	*linhen*
make	it	indeed		to-day

(make it to-day).

chit	*leap*	*wi*	*en*	*an*
I-not	can	make		it

(I cannot make it).

The Nicobarese, however, have no idea of using connectors (conjunctions) merely for joining two words together. They cannot express "and" or "or" without a paraphrase. Thus—

ane	*nina*	*an—diawa*	*an*	*homkwom*
that	this	it—another	he	give

(he gives this and that)

an	*dak*	*olhaki*	*hanan*	*en*	*chua*
he	come	morning	no		I

[he will come in the morning: no: (then) I, *i. e.*, he or I will come in the morning.]

Order of the Words is the Essence of the Grammar.—But the great point of the speech is the position of the words, and that comes out clearly in the following instances from the sample sentences, where the words are simply thrown together.

an	*chuh*	*harra*	*halau*	*loe*	*kan*	*de*
he	go	see	buy	cloth	wife	own

(he has gone to see about buying cloth for his wife).

an	*hat*	*koan*	*men*
he	not	child	you

(he is not your child).

ane	*kanyut*	*halau*	*men*	*longtoten*	*chi?*
that	coat	buy	you	from	who?

(from whom did you buy that coat?)

It would be impossible to make such sentences intelligible, except by the order of the words. The same principle of simple collocation in a certain order is adopted in elliptical connected sentences.

oal	*hoptep*	*men*	*ta*	*ngong*
in	box	you	c. i. r.	nothing

(there is nothing in your box).

Simple collocation of words in a fixed order, determining the functions and classes of each is very common in the language.

chia	*kan*	*chua*	}	= my wife's father.
father	wife	I		
kan	*chia*	*men*	}	= your father's wife.
wife	father	you		
due	*chang*	*chua*	}	= my own canoe.
canoe	own	I		

hoptep	*chang*	*chia*	*kan*	*chua*
box	own	father	wife	I

(my wife's father's own box).

Expression in Phrases.—The habit just explained comes out strongly in the simple collocation of appropriate words to express the various phases of action or condition necessarily connected with predicators (verbs). Thus—

TABLE OF "AUXILIARIES TO "VERBS."

orihata	beat
wot ori (*wot* for *wi hat*, do not)	don't beat
chua ori	I beat (I am beating)
chua yuangshito ori	I busy beat (I was beating)
chua leat yuangshito yanga ori	I finish busy just-now beat (I had been beating)
chua yanga ori	I just-now beat (I have just beaten)
chua leat ori	I finish beat (I have beaten, I did beat)
chua ori leatngare	I beat entirely (I had beaten)
chua yo ori	I wish beat (I will beat)
chua enyah ori	I afterwards beat (I shall beat)
chua alde ori	I just-now beat (I am about to beat)
lak (& shok) chua ori	let I beat (let me beat)
chua leap ori	I can beat
chua doh ori	I able beat [I may (perhaps) beat]
dohta chua ori	duty I beat (I must beat)
chua kaiyahtashe ori	I permit-from-some-one beat (I may, *i.e.*, have the power to, beat)
haroh-ta-yande chua ori	expect-continue I beat (I might beat)
ori-ta-yande	beat-continue (go on beating)

So with the really ellipsed form *oria*, beaten, where the predicator (verb) is unexpressed. *E. g.*,—

chua leat oria	I finish beaten (I was beaten)
chua yo oria	I wish beaten (I shall be beaten)
chua doh oria	I can beaten (I may be beaten)

and so on.

All this shows that the Nicobarese have no idea of "active" and "passive" voices, the expression of the various natural phases of action and condition being merely with them a question of the collocation of certain conventional appropriate words.

Numeral Coefficients.—The habit of collocating conventional words in phrases comes out in another important point in the Nicobarese language. There is, in common with all Far Eastern languages, but carried to a far greater extent than usual, a kind of explicator (adj.) employed in Nicobarese, known to grammarians as the "numeral coefficients," attached with numerals to indicators (nouns), when the numerals themselves are used as explicators (adj.). Thus, one cannot say in Nicobarese "one man," but one must say "one fruit man," *i. e.*, one must not say ***heang enkoiña***, but ***heang yuang enkoiña***. The numeral coefficient is always collocated with the words to which it is attached between the numeral and the thing enumerated.

TABLE OF NUMERAL COEFFICIENTS.

	Central.	Car Nicobar.
(1)	for human beings and spirit-scaring figures (*kareau*).	
	yuang (fruit)	*taka*
	koi (head)	
	tat, tat-yuang, tat-koi	
(2)	for animate moving objects, eggs, parts of the body, domestic and other objects that are round.	
	noang (cylinder)	*nong*
(3)	for fruit	
	noang-yuang	*taka*
(4)	for flat objects, cooking pots and fishing nets.	
	tak (wide)	*tak*
(5)	for dwellings and buildings.	
	hen	*momti*
(6)	for trees and long things.	
	chanang	*ma*
(7)	for ships and boats.	
	danoi	*nong*

	Central.	Car Nicobar.
(8)	for bamboos used for keeping shell-lime.	
	hinle	*kaha*
(9)	for bunches of fruit, but for single pine-apples or *papaya*.	
	tom (bunch)	*lamnaha, tum*
(10)	for bundles of *pandanus*-paste.	
	manoal, mokonha	
(11)	for bundles of split-cane and wood-chips.	
	pomak	*chumvi*
(12)	for bundles of cane	
	mekuya	
(13)	for bundles of fire-wood	
	minol	
(14)	for bundles of tobacco	
	lamem	*milima*
(15)	for books	
	amoka	
(16)	for ladders	
	chaminkaa	
(17)	for pieces of cloth	
	shamanap	
(18)	for cord and fishing lines	
	kamilang	

Another set of numeral coefficients for "pair" is used in the same way.

tafual	pair	of cocoanuts, rupees, edible birds'-nests.
tak	pair	of bamboos for shell-lime.
amok	pair	of cooking pots.

This principle is carried rather far in the following instances :—

amok is also used for two pairs of bamboos for shell-lime.

kamintap is a set (4 to 5) of cooking pots.

noang is a set of ten pieces of tortoise-shell.

Ex. *loe noang okkap*, three sets tortoise-shell, *i.e.*, 30 pieces.

Numeral coefficients appear again in yet another way in the following instances :—

tanai shua,	five times, but
tanai kotatai	five times (for hammering and hand work)
an kochat	two times (for jumping)
foan kongalak	four times (for going)
loe koñenge	three times (for talking, singing)
foan koshichaka	four times (for eating, drinking, feeding)
issat kashianka	seven times (for washing, bathing).

Elliptical Sentences.—Elliptical sentences are very common: the obvious predicate being usually unexpressed.

iteak poatore kamheng en an, noon (is) always asleep for him.

an hat koan men, he (is) not your child.

Analytical Nature of the Language.—We can now perceive generally how the Nicobarese mind regards speech. A Nicobarese has no idea of using variation in the external form of words to indicate *the functions of the sentences* and the interrelation of the component words, but uses position and special additional words (connectors) for those purposes: nor does he use anything but position to indicate *the functions of his words*. He must consequently, to make himself intelligible, rely mainly on the order of his words in the sentence, which thus becomes of the greatest importance to him. His language is, therefore, essentially a Syntactical Language of the analytical variety. Briefly it may be described as an Analytical Language.

Order of Speech.—To the Nicobarese instinct the logical order of speech for all purposes is as follows :—

(1) subject before predicate.

(2) subject, predicate, complement (object).

(3) explicator (adj.) before indicator (noun) : or with connector (prep.) after indicator.

(4) illustrator (adv.) after predicator (verb) or explicator (adj.)

(5 connector (prep.) before the word it connects with another.

(6) referent conjunctor (conjunction between connected sentences) and introducers (interrogative adv.) before everything.

(7) referent substitutes (pronouns) follow the position of their originals.

(8) the principal sentence precedes the subordinate.

The Nicobarese has to adhere strictly to this order, and can only vary it when the inherent qualities of the words used allows him to do so for emphasis or convenience; as when he makes the subject follow the predicate, explicator (adj.) follow indicator (noun) without connector (prep.), illustrator (adv.) precede predicator (verb) or explicator (adj.). He has very complicated methods, without using functional variation of form, of indicating the *nature* and class of his words, and these necessarily form the chief point for study in the language as regards the structure of its words.

Classification of Words depends primarily on Position in the Sentence.—Primarily there is nothing in external form, which necessarily denotes the function or functions of a word in a sentence and therefore its class or its inherent qualities, *i.e.*, its nature. Nor is there primarily anything in external form to show that a word has been transferred from one class to another. That is, properly the class of a word is known by its nature or by its position, and its transfer from one class to another is shown by its position.

I have said above "primarily" and "properly," because, like all speakers of highly developed languages, as analytical languages must necessarily be, the Nicobarese follow one principle of language chiefly and others in a minor degree. So, as will be seen later on, it is possible in many, though not in by any means all, cases to classify Nicobarese words by their form.

Examples of the effect of position on the class of a word.

loa, "quick," explicator (adj.), is transferred to illustrator, (adv.) "quickly," by position.

mittoi, "false" to "falsehood."

chang, "own," predicator (verb) to "own," explicator (adj.)

hen, "time" to ref. conj. "when."

kapngato, "remember" to "mindful."

paitngato, "forget" to "forgetful."

kedölnga, "another" to "otherwise."

loatayan, "punctual" to "early," illustrator (adv.).

hoi, "far" explicator (adj.) to "far," illustrator (adv.).

Words of the same form with totally different meanings according to class are known by position.

kato as explicator (adj.) means "silent": as a predicator (verb) it means "dwell."

tafual as an indicator (noun) means "pair": as a numeral explicator (adj.) or indicator (noun) it means "six."

ta as an indicator (noun) means "touch": as a explicator (adj.) it means "flat."

kahe as an indicator (noun) means "moon": as a ref. conj. it means "when."

yo means "if," "wish" (verb), "to," "thither" according to its position in the sentence. *E. g.*,—

yo	*men*	*yo*	*yo*	*Pu*
if	you	wish	to	Car-Nicobar.

(if you wish to go to Car-Nicobar).

Phrases (Compound Words) classed as Words.—Phrases (compound words) formed of several words thrown together without connectors are very common. They are treated in the sentence precisely as simple words.

Indicator phrases (*compound nouns*).

hen-hatom	time-night, night-time.
paiyuh-olchua	man-jungle, jungle-man.
koi-henyuan	head-hill, hill-top.
anh chaka-foin	life-face-crossbow, bolt of crossbow.
anha-hoal-hindal	contents gun, cartridge.
moah-toah	nose-breast, teat.

Explicator phrases (compound adjectives).

karu-fap	big-side, corpulent.
yo-hujoie	wish-drunk, intemperate.
yo-hujoie-tai	wish-drunk-make, intoxicating.
doh-enhngashe	can-recover, able.

Predicator phrases (compound verbs).

alde-shiang	just-now-sweet, become sweet.
ingahñe-nang	inform-ear, send word.
wi-kaiyi-dak	make-road-water, drain.

The use of such phrases (compound words) as single words is proved by the following examples:—

I. Roots: *ru*, shade; *koi*, head. Then—

(1) *ha*——*ru*——*ngare* — go into the shade.
pref. shade suff.

(2) *ha*——*ru*——*koi* — take shelter.
pref. shade head.

(3) *ha*——*ru*——*ya*——*koi*—*re* — shade the head.
pref. shade suff. head suff.

In this case we have:

(1) root + pref. + suff. (simple word).

(2) root 1 + root 2 + pref. (compound word).

(3) root 1 + pref. + suff. = first word (+) root 2 + suff. = second word, the whole being a compound word. The third case shows clearly that the whole compound is looked upon as one word grammatically constructed.

II. Roots: *tum* (lost r.), tie; *lah*, leg. Then—

(1) *tum*——*a*——*lah* — tied by the leg (simple word).
tie suff. + leg

(2) *om*——*tum*——*lah* — tie the legs (compound word).
pref. tie + leg

III. Roots: *tum* (lost r.), tie; *koal*, arm.

(1) *tum*—*a*——*koal* — tied by the arms, pinioned (simple word).
tie suff. arm

(2) *om*——*tum*--*koal* — tie by the arms, pinion (compound word).
pref. tie + arm

III. Etymology.

Classification of Words depends primarily on their Order in the Sentence.—It has been already noted that the Nicobarese relies mainly on the position and inherent qualities of his words, *i.e.*, on their nature, for a complete expression of his meaning, and that there is nothing in the external form of the words, which necessarily indicates their class, or whether a word, as used in a sentence, belongs to its original class or has been transferred to another. That is, there is nothing to show that *leap*, can, and *wi*, do, are predicators (verbs), or that *oyuhta*, till, is a connector (prep.), or that *due*, canoe, and *koi*, head, are indicators (nouns), except their actual meaning.

Again, there is nothing to show when the indicator (noun) *chua*, I, is transferred to explicator (adj.) "my," or when *loa*, quick, explicator (adj.), is transferred to illustrator (adv.) "quickly," or when *leat*, did, predicator (verb), is transferred to illustrator (adv.) "already," except their position in the sentence.

Classification of Words depends secondarily on Form.—But, nevertheless, the Nicobarese have means of indicating the class to which a word has been transferred, or to which of two or more classes connected words in different classes belong and of differentiating connected words belonging to the same class. They can thus make their speech clearer than would be possible, if they entirely trusted to the mere collocation of their words.

Form created by Radical Prefixes, Infixes, and Suffixes.—The Nicobarese manage to differentiate connected words by adding, in various complicated ways, affixes of all the three sorts,—prefixes, infixes, and suffixes—to simple stems or roots. The affixes are, therefore, none of them functional, but

are all radical, and the words consist of simple stems, or of compound stems (stems made up of a root or a simple stem *plus* radical affixes). The Nicobarese carry this principle through a great part, but not through all, of their language, and have by its means built up a complicated but uncertain system of radical and derivative words, and have rendered their language a very difficult one to analyse and to speak or to understand correctly.

Use of Radical Affixes, Agglutinated, Changed and Inflected.—The radical affixes usually employed to indicate transfer of stems from one class to another, *i.e.*, to create words of different classes connected with each other, those to which the affixes are added being necessarily "derivatives" of the others, are as follow. It will be seen, from what follows later, that they are added—

(1) by mere agglutination, *i.e.*, unchanged form,
(2) by changed form,
(3) by clipped form, *i.e.*, by inflexion.

TABLE OF RADICAL AFFIXES OF TRANSFER.

(*Mr. Man gives many more.*)

Prefixes.

ka	ha	na		ma	men	en	hen
op	o	la	lan	lok	fuk		

Infixes.

ma	am	an	e

Suffixes.

a	o	yo	yan	la	nga	hat

Use of the Radical Affixes of Transfer.—The following examples will exhibit the use of the radical affixes of transfer :—

Abbreviations used in the following tables:

in. class	for nouns (indicators)
e. class	adjectives (explicators)
p. class	verbs (predicators)
ill. class	adverbs (illustrators)
c. class	prepositions (connectors)

RADICAL AFFIXES OF TRANSFER,

added by agglutination.

Prefixes.

ha	
c. class	to p. class
yol (with)	*ha-yol* (mix fluid)
na	
in. class	to p. class
wa (blood)	*na-wa* (bleed)
ma	
e. class	to in. class
hujoie (drunk)	*ma-hujoie* (drunkard)
en	
p. class	to in. class
poya (sit)	*en-poya* (seat)
op	
p. class	to in. class
lop (cover the shoulders)	*op-lop* (shawl)
o	
in. class	to p. class
foang (window)	*o-foah* (to open)
hen	
p. class	to in. class
tainya (to plait)	*hen-tain* (basket)
lain (revolve)	*hen-lain* (wheel)

men

in. class	to e. class
koan (child)	*men-koan* (having many children)

la

in. class	to e. class
ok (back)	*la-ok* (behind, following)

ka

ill. class	to in. class
yol (together)	*ka-yol* (friend)

lan

in. class	to p. class
dakmat (tear)	*lan-dakmat* (water, of the eyes)

lok

in. class	to p. class
shamoa (sprout)	*lok-shamoa* (to sprout)
hoang (sweat)	*lok-hoang* (to sweat)

fuk

in. class	to p. class
dak (water)	*fuk-dak* (drink water)

Infixes.

ma

p. class	to in. class
pa-hoa (to fear)	*pa-ma-hoa* (coward)
po-moan (to fight)	*pa-ma-moan* (warrior)
poin-ñop (die)	*pa-ma-ñap* (corpse)
e. class	to in. class
ka-ru (large)	*ka-ma-ru* (adult)
in. class	to e. class
pu-yol (hair)	*pa-ma-yol* (hairy)

am

p. class	to in. class
d-āk (come)	*d-am-āk* (guest)
t-āk (to measure)	*t-am-āka* (fathom)
e. class	to in. class
k-oang (strong)	*k-am-oang* (strong man)
p. class	to e. class
l-eap (can)	*l-am-iap* (expert)
in. class	to e. class
k-oan (child)	*k-am-oano* (having children)
ch-uaha (property)	*ch-am-woah*on (rich)

an

p. class	to in. class
t-āk (to measure)	*t-an-āk-ram* (measure-night, sand-glass)
w-i-ñi (make-hut, build)	*w-an-e-ñi* (framework of hut)
ch-io (to whistle)	*ch-an-eo* (a whistle)
ch-ial (lift)	*ch-an-öla* (strap, handle)
e. class	to in. class
sh-i-tashe (old)	*sh-an-i-tashe* (age)

Suffixes.

a

p. class	to e. class
ngeang (employ)	*ngeang-a* (employed)
p. class	to in. class
top (drink)	*top-a* (beverage)
e. class	to p. class
oreh (first)	*oreh-a* (begin)
p. class	to e. class
ori (beat)	*ori-a* (beaten)

o

in. class	to e. class
fap (side)	*fap-o* (fat)

la

p. class	to e. class
iteak (sleep)	*iteak-la* (sleepy)
p. class	to in. class
leat (finish)	*l-an-eat-la* (final memorial feast)

nga

p. class *doh* (can) — to e. class *doh-nga* (able)

in. class *kaiyi* (road), (*ol*)-*chua* (jungle) — to p. class *kaiyi-nga* (go away), *ch-am-ua-nga* (go into the jungle)

yan

in. class *oyau* (cocoanut-tree) — to e. class *oyau-yan* (lonely)

hat

e. class *paich* (small) — to in. class *paich-hat* (a little)

yo

in. class *due* (canoe) — to p. class *due-yo* (travel in a canoe)

Radical Affixes of Transfer,

added in changed form.

Prefixes.

change of *ma* to *mo*

p. class *heu* (see) — to e. class *mo-hiwa* (long-sighted)

change of *ha* to *hâ*

in. class *wan* (net) — to p. class *hâ-wan* (net fish)

change of *en* to *an*

p. class (*oal-*)*ola* [bury (in)] — to in. class *an-ula* (grave)

change of *en* to *in*

p. class (*ol-*) *yola* (speak) — to in. class *in-öla* (tale)

Infixes.

change of *am* to *om*

p. class *p-em* (drink), *w-i* (make) — to in. class *p-om-em* (drunkard), *w-om-i* (maker)

e. class *ch-ongkoi* (tall) — to in. class *ch-om-ongkoi* (tall man)

in. class *sh-ayo* (sack) — to p. class *sh-om-yo* (fill a sack)

change of *am* to *anm*

p. class *t-op* (drink) — to in. class *t-anm-op* (drunkard)

change of *an* to *en*

p. class *h-et* (to chisel) — to in. class *h-en-et* (a chisel)

change of *an* to *in*

p. class *d-ian* (run) — to in. class *d-in-nonha* (winner in a foot race)

Suffixes.

change of *a* to *wa*

p. class *halau* (buy) — to in. class *halau-wa* (buyer)

change of *a* to *ya*

in. class *miyai* (value) — to e. class *miyai-ya* (costly)

change of *a* to *ha*

p. class *dian* (run) — to in. class *dinnon-ha* (winner in a foot race)

change of *o* to *yo*

in. class *chatai* (weapon) — to e. class *chatai-yo* (armed)

in. class *due* (canoe) — to p. class *due-yo* (travel in a canoe).

RADICAL AFFIXES OF TRANSFER,

added by inflexion.

Prefixes.

ha inflected to *h-*

p. class	to	in. class
okngok (eat)		*h-okngok* (food)
in. class	to	p. class
omkwom (gift)		*h-omkwom* (give)

ma inflected to *m-*

p. class	to	in. class
enluana (exorcise)		*m-enluana* (exorcist)
itua (visit)		*m-itua* (visitor)
e. class	to	in. class
oreh (first)		*m-oreh* (first person or living thing)
omtom (all, the whole)		*m-omtoma* (flock)

Correlated Radical Affixes of Transfer.—The Nicobarese also indicate the classes to which connected words derived from lost or obscure roots belong, by a system of correlated radical affixes of transfer.

CORRELATED RADICAL AFFIXES OF TRANSFER.

Prefixes.

lost or obscure root	*p. class.*	*to in. class*
heat	ha-heat (to hook)	hen-heat (hooked pole)
het	ha*n*-het (to strain)	hen-het (strainer)
oi	hu-yoie (drink)	hen-yoiya (drunkard)
shin	ka-shin (to prop)	ken-shin (a prop)
tok	ka-toka (to dance)	ken-toka (a dance)
shang	ka-shang (to fish in slack water)	kan-shang (a weir)
kak	tom-kak (pierce)	ten-kak (lancet)
fual	tom-fualhata (tie a pair of cocoanuts)	ta-fual (a pair)
hon	kom-hon (to trap fish)	ken-hon (a trap)

A good instance of the use and force of correlated radical affixes of transfer is the following :—obscure or lost root, *tain :* then *tain-ya,* plaiting : *en-tain-ya,* plaited : *hen-tain,* basket : *ha-tain-ya-paiyah,* crosswise.

Instructive examples of the effect of correlated affixes of transfer on the forms of connected words are the following, where a prefix has been added to the lost root of one or two connected words and an infix to the other. Thus—

lost or obscure root	*p. class (pref. used)*	*to in. class (inf. used)*
di	o-di (beat with stick)	d-an-i (cudgel)
kash	i-kasha (sing)	k-an-oishe (song)

That the lost root is really *kash* in the last case is shown by *womi-kasha* (maker-song), a singer.

Inflexion of Affixes.—It is probable that there is more inflexion than at first appears in the existing forms of the radical prefixes. Thus in the case of the correlated radical prefixes :

hen may be taken to be	ha + en
ken	ka + en
ten	ta + en
tom	ta + om (for am)
pan	pa + an
pen	pa + en (for an)

Duplication of Affixes.—The existence of such inflexion would make one suspect the common existence of duplicated radical affixes, and that this is the case the following instances go to show :—

(1) *en-luana* (exorcise): *m-en-luana* (exorcist). Here the root is *luan* and the prefix *men* is certainly an inflected form of *ma* + *en,* two separate prefixes.

(2) *koan* (child) : *k-am-an-uana* (a generation). Here the root is *k-oan*, and the infix *aman* is certainly *am*+*an*, two separate infixes.

(3) *h-en-tain* (basket) : *m-en-tainya* (basketful). Here the root is *tain* and the prefixes *hen* and *men* are certainly inflected forms of *ha*+*en* and *ma*+*en* respectively.

There is also a prefix of transfer, *kala*, which seems certainly to be made up of *ka*+*la* Thus, *hoi* (far) : *kala-hoiya* (sky).

Duplication of suffixes is very common. *E. g.*,—

Lapa-yan (well) : *lapa-yanto* (glad). *Di* (bulk) : *di-ngareshe* (all absent from anything, entirely wanting in) : here the suffix is treble, *nga*+*re*+*she*.

The proof will be seen in the following examples :—

owi-hala (to take out)	*owi-la eh* (take it out)
kaichmat-hala (to dig up)	*kaichmat-la eh* (dig it up)
lenkah-hanga (to bend)	*lenkah-nga eh* (bend it)
owi-hahat (to screw in)	*owi-ha eh* (screw it in)
tuak-haiñe (to drag)	*tuak-ñe eh* (drag it)
tapaih-haiñe (to spit out)	*tapaih-ñe eh* (spit it out)
ep-hashe (to transplant)	*ep-she eh* (transplant it)

Connectors of Intimate Relation as Prefixes.—There must of course be a strong tendency in the connectors of intimate relation (prepositions), *ta*, *en*, *pan*, *pen*, to become radical prefixes of transfer, and we accordingly find that in some cases they do so. *E. g.*,—

CONNECTORS OF INTIMATE RELATION AS RADICAL PREFIXES OF TRANSFER.

ta		
p. class	to	in. class
kapah (die)		ta-kapah (corpse)
pen		
e. class	to	in. class
teyen (white)		pen-teyen-oalmat (white of the eye)
al (black)		pen-al-oalmat (pupil of the eye)

Nature of Nicobarese Predicators (Verbs).—There is also a use of the duplicated prefix *hen* as an affix of transfer with predicators (verbs), which is of grammatical interest, as showing that the Nicobarese do not separate in their minds predicators (verbs), when they merely assert a fact regarding a subject, from indicators (nouns). They look upon them both as indicating, the first the idea about a thing, and the second the thing itself; and instinctively put the words for both in the same class, indicators (nouns). That is, the Nicobarese look upon "intransitive verbs" as "nouns," and in order to transfer them to the class of real, *i.e.*, "transitive verbs," they add sometimes, but (in obedience to their instinct in such matters) not always, an affix of transfer, the prefix *hen*. Thus—

English.	Intransitive form.	Transitive form.
break	tokngа	hen-tokngа
smart	dahngа	hen-dahngа
sink	pangshe	hen-pangshe

Expression of "Active" and "Passive."—An important set of correlated suffixes of transfer in daily use are worth noting apart. They are used to transfer explicators (adj.) to predicators (verb) and have, naturally though erroneously, been taken to indicate the "passive and active voice."

The common explicator adj. suffix of transfer is *a* : then very commonly

stem	e. class	to p. class
harok (burn)	*harok-a* (burnt)	*harok-hata* (burn)
haril (shoot with gun)	*harill-a* (shot)	*haril-hata* (shoot)

That this is the correct way to view this point in Nicobarese Grammar can be shown thus :—

(1)	*lak he harok ten an*	*lak he ori ten an*
	let we burn to it	let we beat to it
(2)	*lak an haroka*	*lak an oria*
	let it burnt	let it beaten
(3)	*harokhata ta eh*	*orihata ta eh*
	burn c. i. r. it	beat c. i. r. it

Here we have in (1) the mere stems *harok*, burn; *ori*, beat. In (2) we have the predicator (be) unexpressed. In (3) we have the subject (thou, you) unexpressed. There is no instinct whatever of an "active" or "passive voice." Of the suffixes, *a* is merely a suffix of transfer indicating the class (e.) to which the stems have been transferred from their original class (p.): and *hata* is really a suffix of differentiation, giving a definite turn to the original sense of the stem.

Use of Radical Affixes of Differentiation.—The Nicobarese differentiate connected words of the same class and derived from the same root (original meaning) by radical affixes, precisely as they indicate transfer of words from class to class. There is no difference in method or form in the affixes thus used. *E.g.*,—

RADICAL AFFIXES OF DIFFERENTIATION,

for connected indicators (nouns).

Prefixes.

hen-tain (basket)	men-tainya (basketful)
wetare (goblet)	ta-wetare (gobletful)
yai (price)	mi-yai (value)
en-koiña (a male)	men-koiña (a male of a given race)
mongko (cup)	mo-mongkoa (cupful)

Infixes.

sh-ayo (sack)	sh-am-ayowa (sackful)
k-ahe (moon)	k-am-ahe*n*wa (lunation)

Combined prefix and infix.

p-omle (bottle)	ta-p-ah-omle (bottleful)

for connected explicators (adjectives).

Suffixes.

keh (violent)	keh-to (ill-tempered)	keh-ngayan (difficult)
lapa (good)	lapa-yan (well)	lapa-yanto (glad)
heang (one)	heang-ashe (alike) heang-e (same)	heang-ayan (equal) heang-she (first)
karu (large)	karu-ngashe (extensive)	karu-she (abundant)
yol (together)	yol-hashe (same kind) yol-ten (accompanying)	yol-shi (beside)

Working of Correlated Radical Affixes.—In the following instances one can see side by side the working of the correlated radical suffixes both of transfer and differentiation.

(1) Lost or obscure root; *tang*, (?) arrive.

Class.	Word.	Sense.
e.	tang-ngashe	perfect
e.	tang-tashe	correct
p.	tang-hat	arrive
p.	tang-ngato	approve
p.	tang-ngayan	satisfy

(2) Lost or obscure root; *yah*, (?) attract.

e.	yah-ngamat	pretty
e.	yah-ngato	happy
e.	yah-ngayan	kind
p.	yah-ngashin	fond of (to be)
p.	ha-yah-ngashi	love (family) (to)
i.	hen-yah-ngashe	family love

In the last two instances it will be noticed that correlated prefixes of differentiation have been called in to make the sense clear in the usual way.

In the "Comparative Degrees."—In working out his "comparative degrees" the Nicobarese exhibits the uses of the radical affixes in most of the ways above explained. He adds the suffix *a* and then sometimes the infix *en* or the prefixes *en* and *ong*, and sometimes he uses correlated prefixes. This addition he effects by agglutination, change of form, or inflexion.

TABLE OF THE "COMPARATIVE DEGREES."

(Suffix always *a*).

Unchanged Form of Suffix.

Infix *en*		
changed form	*ch-ong* (high)	*ch-in-onga* (higher)
inflected	*l-apa* (good)	*l-en-paa* (better)
inflected	*ch-aling* (long)	*ch-in-linga* (longer)
inflected	*sh-iang* (sweet)	*sh-inn-anga* (sweeter)
inflected	*p-oap* (poor)	*p-enn-oapa* (poorer)
inflected	*la-ngan* (heavy)	*l-en-ngana* (heavier)

Changed Form of Suffix.

inflected	*f-uoi* (thick)	*f-enn-oiyo* (thicker)
inflected	*pa-chau* (cold)	*p-en-chauwa* (colder)

Unchanged Form of Suffix.

Prefixes *en, ong*		
inflected	*enha* (near)	*enn-enhaa* (nearer)
agglutinated	*koang* (strong)	*ong-koanga* (stronger)

Unchanged Form of Suffix.

Correlated Prefixes		
	mi-tanto (strong)	*en-tanta* (stronger)

The "superlative" does not come into the argument, as there is, strictly, no such "degree," the illustrator (adv.), *ka*, indeed, following the "comparative" for the purpose. Thus—

chong (high) *chinonga* (higher) *chinonga ka* (highest).

In expression of "Continuing Action."—So also in working out a plan for expressing "continuing action," the Nicobarese employs the same method. He adds a suffix *yande* to the suffix *a*, and then proceeds as in the former case.

CONTINUING ACTION.

(Suffix always *a*+*yande*.)

Infix *en*		
inflected	*t-op* (drink)	*t-enn-opayande* (c. drinking)
inflected	(*ok*)-*ng-ok* (eat)	*ng-enn-okayande* (c. eating)
inflected	(*i*)-*k-asha* (sing)	*k-enn-oishayande* (c. singing)
inflected	(*ong*)-*sh-ongha* (walk)	*sh-inn-ongayande* (c. walking)
correlated pefixes		
	i-teak (sleep)	*en-teakayande* (c. sleeping)
	ka-toka (dance)	*ken-tokayande* (c. dancing)
	et-et (write)	*en-etayande* (c. writing)
	a-minh (rain)	*en-minhayande* (c. raining)

In Expression of Naturally Connected Words.—So further in the case of expressing the depth of water, a matter of much consequence to a people constantly navigating canoes and boats along a coral-bound shore.

Water and canoes are measured by the arm-span, which is something over five feet, or roughly a fathom: *heang tanaka*, one fathom. But for the more commonly used 2 to 10 fathoms there are expressions specially differentiated by means of the prefix or infix *en* and the suffix *o* (for *a*), attached on the principles noted in Chapter III in the case of the numerals.

Root.		Word.	Sense.
an	two	enn-a-yo	2 fathoms
l-ue	three	l-enn-oiy-yo	3 fathoms
f-oan	four	h-enn-oan-no	4 fathoms
t-ai	five	t-enn-ey-o	5 fathoms
t-afual	six	t-en-fual-o	6 fathoms
issat	seven	en-shat-o	7 fathoms
enfoan	eight	enfoan-no	8 fathoms
sh-om	ten	sh-inn-am-o	10 fathoms

Sudden emphasis on these terms is very often necessary in navigation, and further differentiation is effected by the attachment of the prefix *ma* or the infix *am*. *E. g.*,—

m-enn-a-yo	only 2 fathoms
l-amen-oiy-yo	only 3 fathoms
ma-h-enn-oan-o	only 4 fathoms
t-amen-ey-o	only 5 fathoms
t-amen-fual-o	only 6 fathoms
m-en-shat-o	only 7 fathoms
m-enfoan-no	only 8 fathoms
sh-aminn-am-o	only 10 fathoms

In Expression of Groups of Words round Ideas, and Groups of Ideas round Words.—The Nicobarese carry this plan of differentiating connected words of the same class by radical affixes very far, and manage by this means to create groups of words round one idea or set of ideas, or *vice versâ*, groups of ideas round one word or set of words.

GROUPS OF WORDS ROUND AN IDEA DIFFERENTIATED BY RADICAL AFFIXES.

I. IDEA: "SAME SORT."

(*Prefixes or infixes employed.*)

enkoiña	a male	m-enkoiña	a male of the same race
enkana	a female	m-enkana	a female of the same race
kenyum	child	k-am-enyuma	child of the same race
paiyuh	a Nicobarese	p-en-yuh p-amen-yuh	a Nicobarese of the same community.
not	pig	men-nota	pig of the same village
am	dog	enm-ama	dog of the same village
chong	ship	ch-inm-onga	ship of the same rig
mattai	village	m-en-tai	village of the same people
kentoka	dance	k-am-entoka	dance of the same kind
kanoishe	song	ka-men-noishe	song of the same kind
kaling	foreigner	ka-ma-lenga	foreigner of the same country.

This last word is an instance where a foreign word has been subjected to Nicobarese grammatical forms; for Kling, Kaling is an Indian word for the foreigners settled in the Malay countries, from Kalinga, the Northern coasts of Madras.

Example.

heang	*kamennoishe*	*ta*	*koishe*	*an*	*kamentoka*	*ta*
one	same kind-of-song	c. i. r.	sing	two	same kind-of-dance	c. i. r.

katoka	*tai*	*chua*	*wahe*
dance	by	I	last-night

(one sort of song was sung and two dances of the same kind were danced by me last night).

II. IDEA: "COMPLETE CONDITION."

(*Suffixes employed.*)

Root or Stem.	Connected Words.	Sense.
di (bulk)	di-re di-ngashe	all good (of a hut, goods)
	di-shire di-ngare	all bad (of a hut or goods)
	di-ngareshe	all absent (of a quality, substance)
heang (one)	heang-lare	all good (contents of anything)
	heang-ngare	all bad (contents of anything)
duat (length)	duat-shire	all (of a long object)
heang-leat (one-finished)	heang-leat-tare	the whole set

Example.

linhen	*dingareshe*	*mattai*	*neë*	*hat*	*ot*	*toak*	*ta*	*tain*
to-day	all-absent	village	this	not	is	toddy	c. i. r.	fermented

(there is no fermented toddy at all in this village to-day).

GROUPS OF IDEAS ROUND A WORD DIFFERENTIATED BY RADICAL AFFIXES.

Word: *la*, a portion; then *l-inn-a*, less.

(*Suffixes employed*).

linna-ngashe linna-ngayan	less than ——
linna-hala	less than (a height; a distance northwards,
linna-hashe	less than (a shortness; a distance westwards)
linna-haiñe	less than (a nearness; a distance to landing-place,
linna-hanga	less than (a distance southwards)
linna-hahat	less than (a distance eastwards)

Examples.

an linna-hala chinonga koi ten chua
he less taller head to I
(he is not so tall as I am)
an linna-ngayan ongkoanga ten men
he less stronger to you
(he is not so strong as you are).

Differentiating Radical Suffixes of Direction.—When one comes to consider the suffixes of predicators (verbs), we find the principle of differentiating and grouping connected words by radical affixes carried to an extraordinary extent. Thus, there are sets of suffixes attached to roots or stems indicating motion, which give them a special force, though, when attached, as they frequently are, to other roots or stems, they have no particular force traceable now, whatever might have been possible once.

DIFFERENTIATING RADICAL SUFFIXES OF DIRECTION ATTACHED TO ROOTS AND STEMS INDICATING MOTION.

hala	lare	le	la	al	northwards, upwards, out of.
hanga	ngare	nge	nga	ang	southwards, from self.
hahat	hare	he	hat	ahat	eastwards, inwards
hashe	shire	she		aich	westwards, downwards.
haiñe	nire	ñe		aiñ	towards the landing place, outwards, away.
hata	tare	te	ta	at	towards any direction on same lead, towards self.

As the differentiating radical suffixes of direction play an important part in Nicobarese speech, some examples are given here—

I. Root *o*, go.

go north	o-le	go up (ascend)	o-le
go south	o-nge		
go east	o-he		
go west	o-she	go down (descend)	o-she
go to landing place	o-ñe		
go anywhere	o-te		

II. Root *af*, go.

go north	af-al
go south	af-ang
go east	af-ahat
go west	af-aich
go to landing place	af-aiñ
go anywhere	af-at

III. Root *tang*, arrive

arrive from north	tang-la
arrive from south	tang-nga
arrive from east	tang-hat
arrive from west	tang-she
arrive from landing place	tang-ñe
arrive from somewhere	tang-ta

IV. Root, *oid*, hither

hither from north	oid-lare
hither from south	oid-ngare
hither from east	oid-hare
hither from west	oid-shire
hither from landing pl.	oid-ñire
hither from anywhere	oid-tare

V. Root *shwa*, bring back

bring back from north	shwa-hala
bring back from south	shwa-hanga
bring back from east	shwa-hahat
bring back from west	shwa-hashe
bring back from landing p.	shwa-haiñe
bring back from anywhere	shwa-hata

Extreme Extension of the Use of the Radical Suffixes of Direction.—These suffixes explain a set of illustrators (adverbs) of direction, which are to be explained as consisting of a lost root *nga*+suffix of direction. *E. g.*,—

ILLUSTRATORS (ADVERBS) OF DIRECTION.

ngala-le	north, above	nga-iche }	west, below
nga-nge	south, down	nga-she }	
nga-hae	east	nga-iñe	to landing place

Example.

due	*ngaiñe*	*chamang*	*chi ?*
canoe	at-landing-place	belong	who ?

(whose is the canoe at the landing place ?)

Transferring these illustrators (adverbs) to indicators (nouns) by means of using the connector of intimate relation, *ta*, as a prefix, we get

THE FOUR QUARTERS.

Ta-ngale	North	Ta-ngange	South
Ta-ngahae	East	Ta-ngaiche	West

In the general Expression of Time Past.—Transferred to yet another set of illustrators (adv.), the sense of "ago" is conveyed to predicators (verbs) of motion in the same curious manner.

ILLUSTRATORS (ADVERBS) OF TIME PAST.

hala	ago (of movement, occurrence in the North)
hanga	ago (of movement, occurrence in the South)
hat	ago (of movement, occurrence in the East)
hashe	ago (of movement, occurrence in the West)
hata	ago (of returning)
hashi	ago (of a death).

Example.

tanai	*hanga*	*kamahenwa*	*an*	*kapah*
five	ago-to-the-South	month	he	die

(five months ago he died in the South).

In Interrogatives of Direction.—The interrogative prefix *ka*, *kă*, *kan*, has been already explained and when attached by inflexion to *ot*, be, together with an inflected suffix of direction, it produces a curious and common set of forms of question and answer.

INTERROGATIVES OF DIRECTION.

Root *ot*, be, plus prefix *ka* for the question, plus suffix *ta* of "any direction" inflected with suffix of definite direction.

k-od-de ?	be ?
k-o-lde ?	be north ? be upstairs ? be above ?
k-o-ngde ?	be south ? be below ?
k-o-hare ?	be east ?
k-o-itde ?	be west ? be downstairs ?
k-o-inde ?	be at landing place ?

Examples.

Q. *Kodde ta ane dak ?* Any water there ? A. *Kakat.* There is.

Q. *Kolde ta ane dak ?* Any water up there ? up north ? A. *Kolde.* It is up there; up north. A. *Ngalde.* It is up here.

Q. *Kongde ta ane dak ?* Any water down there ? down south ? A. *Kongde.* It is down there; down south. A. *Ngange.* It is down there.

Q. *Kohare ta ane dak ?* Any water to the east ? A. *Ngahae.* To the east.

Q. *Koitde ta ane dak ?* Any water downstairs ? to the west ? A. *Koitde.* To the west. A. *Ngashe* (and *ngaiche*). It is down here.

Q. *Koinde ta ane dak ?* Any water at the landing-place ? A. *Koinde.* It is at the landing-place.

In the above instances *kakat* is a case of a double prefix *ka*+*ka*+(*o*) *t*. *E. g.*,—

Q.	*Kakat ?*	*enkoiña*	*enkana*	*ta*	*ita*	A. *Kakat.*
Q.	Be ?	man	woman	c, i, r.	here	A. Be.
(Q.	Are there any men and women here ?					A. There are.)

Use of Terms for Parts of the Human Body as Supplementary Radical Affixes of Differentiation.—Words relating to some parts of the body are used as supplementary radical suffixes both of differentiation and transfer to indicate action or relation naturally referable to those parts. Thus—

-tai (hand) refers to what is done by the hand or by force: *-lah* (foot, leg), to movement by the foot: *-koi* (head), to anything relating to the head or top: *-nang* (ear), to what can be heard: *-chaka* (face), to what is done before one or in the presence: *-nge* (voice), to speech: *-mat* (skin), to what is outside, on the surface. *E. g.*—

SUPPLEMENTARY RADICAL SUFFIXES DERIVED FROM PARTS OF THE BODY.

	derived from parts of the body.	
tai (hand)	*hoah* (starve)-*nga-tai*	(make to starve.)
lah (foot)	*o* (go)-*nge-lah*	(to) leave
koi (head)	*kenyua* (pot)-*nga-koi* (head)	pot-cover
nang (ear)	*hima-nga-nang*	advice
chaka (face)	*oreh* (before)-*chaka*	(to) advance
nge (voice)	*opyap* (overhear)-*nga-nge*	(to) eavesdrop
mat (skin)	*ettat* (polish)-*mat*	(to) wipe.

IV. PHONOLOGY.

Mode of Speech.—The Nicobarese speak in a deep monotonous tone and with open lips, thus adding to the many difficulties presented by their language by giving it an exceedingly indistinct sound. The pronunciation is guttural, nasal, drawled and indeterminate, *i.e.*, the Nicobarese speak slowly from the throat with the flat of the tongue and open lips. Final consonants are habitually slurred, especially labials, palatals and gutturals. All this is the result of the habit of betel-chewing till the lips are parted, the teeth greatly encrusted and the gums distended, rendering the articulation of speech most imperfect.

Man's and de Roepstorff's Enquiries.—Mr. Man was at very great pains to catch the real sound of Nicobarese words, and his reproduction of them on Mr. A. J. Ellis's scheme may be taken as being as near to complete accuracy as one is likely to arrive at. Mr. de Roepstorff, who was a Dane, used in 1876 his national system of representation, which has been followed by Danish and German writers, but is entirely unsuited to English readers. *E. g.*, he writes *j* for *y*, and the usual Danish and German complications to represent *ch* and *j* and so on. He had also the common Danish and German difficulty in distinguishing surds from sonants, which has made his transliterations puzzling.

Reduction of the Speech to Writing.—There are a great number of vowel sounds in the language, which have been reproduced by Messrs. Man and Ellis as follows :—

THE VOWELS IN THE CENTRAL DIALECT.

	English.	Central.		English.	Central.
a	id*ea*, c*u*t	yūang (fruit)	ò	p*o*t	òmtōm (all)
ā	c*ur*	dāk (come)	ô	*aw*ful	lôe (cloth)
à	cas*a* (Ital.)	kâkàtok (a month)	ö	könig (Ger.)	höi (far).
â	f*a*ther	kân (wife)	u	infl*u*ence	puâ (catch)
ä	f*a*thom	leät (finished)	ū	p*oo*l	dūe*n* (monkey)
e	b*e*d, ch*a*otic	heng (sun)	ü	*ü*ber (Ger.)	düe (canoe)
ē	p*air*	lēang (name)	ai	b*i*te	tanai (five)
i	l*i*d	kal*i*ng (foreigner)	au	h*ou*se	karea*u* (spirit-scarer)
ī	pol*i*ce	wī (make)	àu	h*aus* (Ger.)	oàu (vomit)
o	ind*o*lent	ko*â*l (arm)	òi	b*oi*l	enlòien (wallow)
ō	p*o*le	enlōin (axe)			

Almost every vowel is nasalised and the following are reproduced in the written form adopted.

NASALISED VOWELS IN THE CENTRAL DIALECT.

a*n*	holīa*n* (spinster)	ō*n*	kenhō*n*a (pocket)
à*n*	mià*n* (spear)	ò*n*	ò*n*h (fuel)
â*n*	â*n* (two)	ô*n*	mô*n*huyä (albumen)
e*n*	e*n*h (near)	u*n*	chyu*n* (sweet)
i*n*	ami*n*h (rain)	ai*n*	mifai*n*ya (cloud)
ī*n*	fī*n*ha (hogshead)	au*n*	a*n*hau*n* (parboil)
o*n*	haro*n*h (stalk game)	oi*n*	omhòi*n* (tobacco)

The consonants do not require much explanation, but the following may be noticed.

	English.	Central.		English.	Central.
ch	*ch*ain	chakâ (face)	ñg	lin*g*er	iñgol (nearly ripe)
hw	*wh*at (Scotch)	benhwâva (ashes)	re	*r*est (Eng. *r*)	karū (large)
ñ	ga*gn*er (Fr.)	enkoiña (man)	sh	*sh*e	shohōng (west wind)
ng	si*ng*er	yangtare (follow)			

Stress.—Stress is on the root or stem, or on what is now thought by the Nicobarese to be so. These can to a great extent be separated out from the affixes by the stress. In stems of two syllables the stress is on the second syllable, unless the first contains a long vowel.

V. Comparison of Dialects.

Man's Enquiries.—Mr. Man gives a long list of words in the dialects, and when considering the currency of the people in Chapter III, the comparative terms for the numerals and words connected with enumeration have also been given. From these last the deduction seemed to be clear, that the six dialects of the Nicobarese are variants of the same fundamental tongue. The same inference seems inevitable from the following examination of a selection of words from Mr. Man's *Dictionary*.

The following abbreviations will be used in the accompanying tables.

C. N.	= Car Nicobar	Ch.	= Chowra
T.	= Teressa	C.	= Central
S.	= Southern	S. P.	= Shom Pen

Comparison of Words.—Roots will be separated out of the words by placing the affixes in italics. This separation of roots is of course at present tentative, as roots can only be ascertained beyond doubt by a comparison with other connected languages in the Far East. The present attempt will, however, be useful to students.

Words in the six Dialects Compared.

English.	C. N.	Ch.	T.	C.	S.	S.P.
bachelor	*lâ*mok	*mai*âl	*mai*yoh	*i*lū	*il*ū	*hakâoit*
maiden	dê*la*	*lâ*mok	*lâ*mok	ho*lian-* (wihla)	*pen*hōn- (wihla)	
child	*nī a*	ken-yu*m*	ken-yu*m*	ken-yu*m*	pin-i*en*	ak*an*
female	*ki*kâ*na*	*en*kâ*na*	*en*kēa*na*	*en*kâ*na*	*o*yü*na*	ap*an*
male	*ki*kô*na*	*mo*hē*o*	*mai*o*h*	*en*koiña	*atāha*	ak*oit*
man	tâ*a* tâ*rik* tâ*oin*	pâe*h*	pai	pai*yuh*	pô*h*	ak*oit*
woman	*ki*kâ*na*	*en*kâ*na*	*en*kēa*na*	*en*kâ*na*	*o*yü*ha*	*o*yü-ap*an*
back (the)	ok	ok	ok	ok	*tom*nô*it*	*ho*kō*a*
blood	mâm	*pâheò it*	vâ	wâ	wâ	döb
breast	täh	tòh	tòh	toh	toâh	tō*a*
ear	nâng	nâng	*a*nang	nâng	nâng	nâng
finger	*kun*tī	*kenush*nòi	*moh*tī	*kan*etai	*ke*wet	noai-tī
hair	kü*ya*	hēòk	heòk	yôk	yôk	jūo, joa
hand	*el*tī	nòi	*moh*tī	*kan*etai	*ke*wet	noai-tī
head	kūi	kōi	kōi	kōi	kōi	kōi
leg	kal*dran*	läah	läh	lâh	lâh	làu
nose	*el*menh	monh	monh	maanh	moanh	*ma*hūn
stomach	*el*lōan	wiang	vīang	wīang	wīang	kàu, kâ*nal*
bird	chechon	shichū*a*	shichū*a*	sichū*a*	shichū*a*	sichū*a*
canoe	âp	dü*e*	rô*e*	dü*e*	*hen*hô*at*	dōai, hö*a*
a cocoanut	ta*ôka*	*o*wēàu	*o*vēàu	*o*yàu	gàu	*kaleal*
dog	am	òm	òm	âm	âm	kab
fire	tá*möya*	*palô*	heō*e*	heō*e*	*hen*tôn*ha*	yo*p*
fruit	rong	eang	äng	yūang	oag	
hut	*pā*tī	ñī	ñī	ñī	en	ñi-yang
	âm	âm-tôm	am-tôm		ñi	ñi-ngân
meat	alâ*hah*	en*ha*	en*ho*	ân*ha*	en*ha*	en*ha*
moon	chi-nge*at*	*ma*nēa*na*	ka-hai	kâ-hē	kâ-he	*hawôp*

English.	C. N.	Ch.	T.	C.	S.	S. P.
name	*mi*naiñ*a*	lē*ang*	ē*ang*	lē*ang*	*l*ē	lē*d*
North	*la*ôla	*la*ôl	*lá*ō	*tang*âle	*lá*ôl	
north-wind	*ka*pâ	*ka*pâ	*ka*pâ	*ka*pâ	*ka*pâ	
paddle	paiyu*ah*	kâhē*al*	kâhē*a*	pōw*ah*	pàu*ah*	kâk*al*
pig	hàun	nōt	nōt	nōt	pak*òit*	mēn
pig (wild)	hân-cho*n*	*mil*ī*ah*	en*ha*	sh*aru*a*l*	chū*am*	nōng
place	chiu*k*	chu*k*	chu*k*	chu*k*	chū	*lōi*chau
village	pânò*m*	pân*am*	mat*tai*	mat*tai*	pat*tai*	*he*ôa
sea	mai	sh*amar*àu	*en*lī*ang*	*kama*lē	ô	
seed	kōl*al*	*en*shung	*en*shung	*op*ēp	*op*iēp	*k*ēap
storm	rash*at*	fēh	*hur*âsh*a*	*hur*âsh*a*	*o*rash*a*	
tabu	*tā*kô*ya*	kā*l*	ye*òich*	chī*j*	yī*i*	yū*id*
tomorrow	*hur*ēch	tâh*a*-kōi	*hor*òich	*ha*kī	*ha*kī	yā*b*ō
year	*som*yüh*u*	*sam*aih*a*	*samen*ēoh	sh*omen*yūh	shâü	*an*hö*i*
yes	han, hōn	an	an	an	han	
all	rok*hare*	chiö*i*	chiö*i*	*om*tom	he	*kaa*pöi
bad	at-lāk	hat-lu	hat-lapā	hat-lapā	ngâ-kö	wu-*àu*hu
good	lāk	lu	lapā	lapā	kö	*àu*kö
not	{ar, at {drân	hat	hat	hat	ngâ	wu
hear	hang	hēang	heäng	yâng	hâng	hâng
see	māk	har*ra*	ha	har*ra*	ha*ka*	tā*a*
say	rô	*kan*yu*a*	*enneola*	*olyola*	hâh*al*	tē*it*
steal	*ol*â*ya*	*mal*â*nga*	*kal*ô*hanga*	*kal*ô*hanga*	*pal*a*it*	
he	ngô*a*	an	an	an, na	an	nho
I	{chyū*a* {chī*an*	chiā	chiā	chü*a*	*e*chī*ahan*	chi*au*
we-two	hôl-chyū	chī*a*-hâu	hain-hâ	hen	hē	â-mô
we	ī*ha*	hē	hē	hē	hē*i*	*fü*ehäe-mô
you-two	ñâ*a*	*i*ñâ	*i*ñâ	*i*ñâ	ñâö	
oyu	yī*a*	*e*hē	*i*hē	*i*fē	hē*e*	

Comparison of Roots.—We can now compare the above words b yroots so far as these are at present apparent, which will sufficiently show the unity of origin of all the dialects, and should help to fix the identity of the general Nicobarese Language with that of the tongue of some definite group of speakers in the Far East.

ROOTS IN THE SIX DIALECTS COMPARED.

English.	C. N.	Ch.	T.	C.	S.	S. P.
bachelor	mok	âl	yoh	lū	lū	kâ
maiden	de	mok	mok	ho	hōn	
child	ī	ken-yu	ken-yu	ken-yu	pin-ī	ak
female	kân	kân	kēan	kân	yü	ap
male	kôn	hē	o	koiñ	tā	ak
man	tâ	pâ	pai	pai	pô	ak
woman	kân	kân	kēan	kân	yü	yü-ap
back (the)	ok	ok	ok	ok	nô	kō
blood	mâm	pâh	vâ	wâ	wâ	döb
breast	täh	tòh	tòh	toh	toâh	tō
ear	nâng	nâng	nang	nâng	nâng	nâng
finger	tī	nòi	tī	tai	wet	noai-tī
hair	kü	hēòk	hēòk	yôk	yôk	jū, jo
hand	tī	nòi	tī	tai	wet	noai-tī
head	kūi	kōi	kôi	kōi	kōi	kōi
leg	kal	läah	läh	lâh	lâh	làu
nose	menh	monh	monh	maanh	moanh	hūn
stomach	lōan	wīang	vīang	wīang	wīang	kàu, kâ
bird	checho	shichū	shichū	sichū	shichū	sichū
canoe	âp	dü	rô	dü	hô	dō, hö
cocoanut	ô	wēàu	vēàu	yàu	gâu	le
dog	am	òm	òm	âm	âm	kab
fire	tö	pô	heō	heō	tôn	yô
fruit	rong	eang	äng	yūang	oag	
hut	{tī {âm	ñī âm-tôm	ñī am-tôm	ñi	en ñi	ñi-yang ñi-ngân
meat	lâ	en	en	ân	en	en
moon	chi-ngeät	nēa	ka-hai	kâ-hē	kâ-hē	ô
name	naiñ	lē	lē	lē	lē	lē

English.	C. N.	Ch.	T.	C.	S.	S. P.
north	ôla	ôl	ō	âle	ôl	
N.-wind	pâ	pâ	pâ	pâ	pa	pâ
paddle	paiyu	kâhē	kâhē	pō	pàu	pâk
pig	hàun	nōt	nōt	nōt	pak	mēn
pig (wild)	hân-cho	lī	en	shu	chū	nōng
place	chiu	chu	chu	chu	chū	chau
village	pân	pân	mat	mat	pat	heô
sea	mai	shàu	lī	lē	ô	
seed	kol	shung	shung	ēp	ēp	ēap
storm	rash	fēh	râsh	râsh	riash	
tabu	kô	kā	ye	chī	yī	yū
tomorrow	rēch	tâh-kōi	roich	kī	kī	yāb
year	syüh	saih	sēoh	shyūh	shâü	hö
yes	han, hōn	an	an	an	han	
all	rok	chiö	chiö	tom	he	pöi
bad	at-lāk	hat-lu	hat-lapā	hat-lapā	ngâ-kö	wu-hu
good	lāk	lu	lapā	lapā	kö	kö
not	ar, at / dran	hat	hat	hat	ngâ	wu
hear	hang	hēang	heäng	yâng	hâng	hâng
see	māk	har	ha	har	ha	tā
say	rô	yu	eo	yo	hâh	tē
steal	lâ	lâ	lô	lô	la	
he	ngô	an	an	an, na	an	nho
I	chyū, chī	chī	chī	chü	chī	chi
we-two	hôl-chyū	chī-hâu	hain-hâ	hen	hē	â-mô
we	ih	hē	hē	hē	hē	häe-mô
you-two	ñâ	ñâ	ñâ	ñâ	ñâ	
you	yī	hē	hē	fē	hē	

VI. Comparative Philology.

Comparison with the Indo-Chinese languages.—I am able to compare some of the Nicobarese roots with those of corresponding sense in the Indo-Chinese Languages, civilised and uncivilised, — of which Mon (Peguan) and Khmer (Cambodian) form the civilised group, — and in the aboriginal dialects of the Malay Peninsula, as contained in Mr. Otto Blagden's paper on the *Early Indo-Chinese Influence in the Malay Peninsula.*

Elements of Uncertainty in the Comparison.—In making the comparison the elements of uncertainty are these. In Nicobarese a root is nowadays surrounded and obscured by a long growth of affixes (prefixes, infixes, and suffixes) attached by agglutination, phonic change of form, inflexion and duplication, the effect of the affixes being often to induce phonic change in the root itself. So patience and a knowledge of the affixes and their effect is necessary to separate the root correctly from its surroundings. In the Far Eastern words treated by Mr. Blagden there is the uncertain element of misapprehension in the original reporters. However, Mr. Blagden put his words together with great care and personal knowledge, and my specimens are based on the exceedingly accurate reporting of Mr. Man: so that results may be looked on to be as accurate as is possible in the present stage of the enquiry.

Tables of Comparative Roots and Words.

English.	Nicobarese.	Malayan Aborigines.	Indo-Chinese.
father	ta (man), ita pa, po, pai, ap (man)	ita	ta (grandf.).
	ak (man), ku, ika (man), kan (woman), kon, koiñ, (male) doin chya, chia	iku, ikun	kunh, kuñ, konh
child	koan, kuan, koat	k'non, kenod	kon
son	ken-yu (boy) (yu, male and female)	kon	ken
back (the)	o, ok, ko	kiah, ki-ah	cha'
breasts	to		da
	tah, toh, toah	tuh	tah

English.	Nicobarese.	Malayan Aborigines.	Indo-Chinese.
ear	nang		na (Burmese)
eye	mat meat, met, med main	mat, mot	mat, mot
foot	chuk	jok, iuk, yohk, diokn jaung, chung, chan	jiung, jung, jong, giong chung, chong, cheun, cho'n sang, sinh young
	lah, dran.	chau	
hair	heok, yok	so', sak, sok, sogk, suk	sak, sok, souk, shok tiok
	ku, ju.		
hand	ti, ti, tai	t'hi, the, tu tung, tong, tein	ti, tay, toa, day
	(all=hand *and* finger) noi (h. *and* f.)	ting (hand *and* finger)	
finger	wet	wantung (child of hand)	
head	koï kui	koi, koï, koe kui, kuya, kay	tuwi, toui
mouth	fang	pang, ban hain, hein	paing
	foa, wa		mieng
nose	monh, maanh, moanh mahun	moh, muh, mah	muh, mouh
		mo, mu	mo, mui, mus

(In Nicobarese, however, this word is, I think, *anh*, *enh*, breath, soul, life, *plus* prefix *ma*, *mo*.)

tongue	letak, litak	letik, litig, letig, lentak, lentak, rentak	lataik n'tak
	mul		andat
bird	checho, sichu, shichu	chim, chem, chep	chim, chiem, kiem, kachem
egg	pen kateab ha, huya	k'poh, kepoh	pong
fish	kaa, kalo	ka, ka', kah	ka
mosquito	misoka, mihoya pishminha, moanh obuat	kemus	mus
tree	chia chon, chua, chia (jungle) yia, hanhan doin	chuk ioh, johu, joho	chhu
wood	chio, chon hoño, hop, hoap (jungle) oñi, wi pen (jungle)	chue jehu	chhu
stone	mang, mwang	t'mu, g'mu	t'ma, th'ma, t'mo taman, tamao
	kub, hong, patu		
hut	tom pati am, ñi	deh, derk, dug	tong, doung, dong

English.	Nicobarese.	Malayan Aborigines.	Indo-Chinese.
sun	ngio		t'ngoa, th'ngay
		tunkat	
	heg, heng		
	mu, wu		
moon	kahe, kahai		khe, kato
	chi-ngeat	chi, kachik, kichek,	
		kachil, guchah, gechai	kachai, mechiai,
		geche, giche, biche	kaosai
	ma-neana		
	hawo		
water	dak, rak	dak	daik, dak, tak, tuk, trak
	dui (river), pui	deu, daü, diau	doi
		do, d'hu	do
	tahe (river)	teu, bi-teu, ba-teau	
		bi-teu (river)	
	mak		
rain	aminh	gema, kumeh	koma, ma
	komra	gumar	
	yau, kap		
evening	harap	yo-op	jop
	diya, riai, nia		
m ale	enkoiñ, ikon	ongkon	angyuang
	enkàn (female)		
go	chuh, chau, sho	cho'	cho
	chiah (come)		cheo, chea
		chup, chip, chiop, chiup	jib (come)
		chohok, jok	
	do, ewa		
eat	sha	chi, cha, cha', chioh,	cha, chha, si
		chacha, inchi, inchih	
		nacha, nachi	
	ka, ko		
	ña, nga		
	punh, ham		
sleep	teak, didag	teïk, tiok	theak, tep
		tag, taig	dek
		jetek, jettik, ietek	
		letik	takla
	kuan, ngal		
	men, miaich		
stand	shok, shiak, keag	jög	chho
	chol, õ		
cry	chim, chiam	j'm	jom
	puin, hea		

Nicobarese Radically an Indo-Chinese Language.—Now, the Nicobarese have been on the same ground for at least two thousand years, and they have a tradition of migration from the Pegu-Tenasserim Coast. They have been quite isolated from the coast people, except for trade, for all that period. Their language has been affected by outside influences almost entirely only in trade directions, and then not to a great degree. It has been subjected to internal change to a certain degree by the effects of tabu. Yet we find roots in the language of the kind that remain unchanged in all speech, which are apparently beyond question identical with those that have remained unchanged in the dialects of the wild tribes of the Malay Peninsula ; these very roots owe their existence among the wild tribes to the effect on them of the influence of the Indo-Chinese Languages, civilised and uncivilised.

Considering then the long isolation of the Nicobarese, it is a fair inference that these islanders probably preserve a form of the general Indo-Chinese speech that is truer to its original forms than that of any existing people on the Continent. We may, therefore, find in the Nicobarese speech the real foundation on which to build up the philology of the whole Indo-Chinese Group of Languages. In this view the Nicobarese dialects are of great scientific value and well worth a thorough investigation.

PART III.

THE PENAL SETTLEMENT.

CHAPTER I.

THE CENSUS.

Previous Census Operations—Arrangements for 1901—Totals for the Settlement—Totals for the Islands—Continuous Census kept of the Settlement—Morning Reports—Strength Register—Completeness of the Daily Census of the Convicts—Annual Census of the Settlement Population—The Census Returns—Area Figures in Returns, Table I—Remarks on Table I, Totals—Table II, Variation—Table III, Size of Towns and Villages—Table VI, Religions—Table VII, Civil Condition—Table VIII, Education—Table X, Languages—Languages as a Test of Origin in Convicts—Place of Conviction an Important Return—Table XI, Birthplace—Locally-born Population—Table XII, Infirmities—Table XIII, Caste—Table XV, Occupations.

Previous Census Operations.—The story of Census taking in the Andaman and Nicobar Islands is as follows:—In 1872 no attempt was made. In 1881 and 1891 nothing beyond mere enumeration on general Census forms was attempted locally, and the results were tabulated by the Bengal Census Office. On both occasions the Census was limited to the Penal Settlement and no attempt was made to include the native inhabitants of the islands.

In 1881 a set of separate tables was printed for local use, but in 1891 the only tables anywhere available are those in the India General Tables, Volume I, where they are lost in the vast general statistics. For this reason and for those using this Report the Tables both for 1881 and 1891, are put together in Appendices C and B respectively.

Arrangements for 1901.—For 1901 the arrangements made were the same as in 1891. That is, Mr. F. E. Tuson, First Assistant Superintendent (now Deputy Superintendent) of the Penal Settlement, supervised the enumeration, sending the forms for tabulation to the Bengal Office and all his operations were confined to the Penal Settlement. Enumeration in the Penal Settlement is quite a simple affair and is, as a matter of fact, undertaken daily as regards the convicts and annually as regards the whole population for local reasons. The persons employed at the general Census were 60 Government employés and 70 convict munshis and clerks, and there can be no doubt that the enumeration figures are quite accurate.

Totals for the Settlement.—The provisional totals for the Settlement were prepared on the 28th February and despatched by the mail of March 2nd. They reached 16,106. The final totals reached 16,256, the difference being caused by the presence of the mail steamer on the Census night, March 1st, with 150 persons on board.

Totals for all the Islands.—The Census figures for Andamanese and Nicobarese have been already explained and the full final figures for the islands were returned as—

Penal Settlement	16,256
Andamanese	1,882
Nicobarese	6,511
	24,649

Continuous Census kept of the Penal Settlement.—So far as concerns the mere enumeration of the population, three-fourths of whom are convicts, there is no need of a Census in the Penal Settlement, as for obvious reasons there must be a perpetual running Census of the convicts, who have to be fully accounted for every day. Again, for obvious reasons, it is necessary for the authorities to be continuously in possession of information as to every free resident in the place, and this is annually checked on the 31st March by a formal Census of the whole population locally conducted.

Morning Reports.—The daily Census of the convict population is effected by what is known as the "Morning Report," sent to the Superintendent daily from each district and checked by the "Strength Register" in his office, also made out from day to day. Besides these, there are the ration issues from the Commissariat Department made to the District officers on daily indents for supplies, which serve as an additional check on the labouring convicts, the class most likely to attempt escape. There is further an organised arrangement of patrols and surprise visits by police, overseers, and Settlement officers: a daily statement of the employment of all the labouring convicts, returns of the self-supporters, their residences, employments, and so on. The working of this system of report and check makes it impossible for the petty officers immediately responsible for the presence of labouring convicts and the village officials responsible for the presence of the self-supporter convicts to successfully attempt concealment of the absence of any one, anywhere in the whole settled area of 327 square miles. Discovery would follow so quickly on such an attempt that none has been made in my considerable experience of the Settlement.

The District Morning Reports are designed to show the strength of those convicts who are rationed and who are not rationed and the total in each District daily, and are made in the following form. They form a daily Census of the convicts.

FORM OF DISTRICT MORNING REPORT, BEING A DAILY CENSUS OF THE CONVICTS IN PORT BLAIR.

Total of all convicts.			Not rationed.								Rationed.					
			Self-supporters.		Government servants (self-supporters).		Others.		Total.		3rd class and chaingang men.	Invalids and women.		Receiving allowances (meal).	Total.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.		Male.	Fem.		Male.	Fem.
Balance yesterday.																
Received to-day.																
Total .																
Removed to-day.																
Balance as per grade register . .																

The Strength Register.—The Superintendent's Strength Register is designed to show per district the actual number present every day of every class and description of convict. It is primarily a financial return to check payments with numbers. It forms a complete check on the Morning Reports.

It shows daily the numbers present on the previous day and every convict withdrawn and added during the day for any reason in each class.

FORM OF SUPERINTENDENT'S STRENGTH REGISTER, BEING A CHECK ON THE DAILY CENSUS OF CONVICTS IN PORT BLAIR. (B=BALANCE: D=DEDUCT: A=ADD.)

Date

I.—SUPERVISION.

Jemadars.			1st Tindals.			2nd Tindals.			1st Peons.			2nd Peons.		
b	d	a	b	d	a	b	d	a	b	d	a	b	d	a

II.—MEN ON ALLOWANCES.

1ST CLASS.												2ND CLASS.								
R2			R1-12-0			R1-8-0			R1-4-0			1			R1 A			12 as. B			12 as. New.		
b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a

III.—INVALIDS.

1ST CLASS.						2ND CLASS.									3RD CLASS.			CHAINGANG.		
12 as.			8 as. New			8 as. A.			4 as. B.			4 as. New.								
b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a

IV.—MEN WITHOUT ALLOWANCES.

3rd Class.			Chaingang.			Ward Servants.			Domestic servants.		
b	d	a	b	d	a	b	d	a	b	d	a

V.—HOSPITALS ESTABLISHMENT ON ALLOWANCES.

COMPOUNDERS.									SELF-SUPPORTER COMPOUNDERS.								
R10			R8-4-0			R6-4-0			R10			R8-4-0			R6-4-0		
b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a

VI.—Self-Supporters.

Employed by Government.																		Others.				Totals.					
R14			R12			R11			R10			R9			R8			R7			R6			Male.			Female.			Male.			Female.		
b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a

VII.—Female Jail.

Supervision.									Labour.													
Jemadarni.			Tindalan.			Daffadarni.			1st Class A.			1st Class B.			2nd Class.			Refractory Ward.			Ward servants.		
b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a	b	d	a

Completeness of Daily Census of the Convicts.—The Morning Reports are first made out by writers (Munshis) station by station, collected in the District Offices, examined, checked and made out into the form above given and sent in separately to the Superintendent's Office, where they are checked by his "Strength Register." It will be observed that the details in the two sets of returns are entirely different, but that the totals for the whole Settlement must absolutely agree. By the system adopted a complete Census is daily secured and collusion between officials to conceal an absence made impossible.

The Census Returns.—The formal decennial Census Returns of the Penal Settlement are necessarily compiled to suit the returns for all India, but they are so little suited to so highly specialised and small a population as that of the Penal Settlement that they have always proved a stumbling block to both enumerators and tabulators. Indeed, on the present occasion, the Tables had to be compiled twice over, owing to the difficulty in getting tabulators to grasp what was required and even then to be extensively checked and corrected. In their final form some are still inaccurate. See Appendix A.

The following general Tables have not been filled in at all as being inapplicable to a small artificial population:—

IV. Urban population and its variation.
V. Urban population by provinces or States and by religion.
IX. Education by selected castes and tribes.
XIV. Civil condition by age for selected castes.
XVI. Caste, Tribe and Race by traditional and actual occupation.

The Annual Census of the Settlement Population.—The annual Census is designed to procure the following information regarding the free and convict population:—the strength of the Government establishments, Civil, Military, Marine and Police: of the free residents by sexes: of the children (who are all of course "free") by sexes: of the convicts by sexes. It is made by religions: Christians, Hindus, Mahomedans, Budhists, others.

In 1901, owing to the date of the general Census, the local annual Census was taken on the 28th February, instead of the 31st March as usual. The population was returned accordingly as under, agreeing with the Census provisional totals.

Statement showing the entire population of the Settlement, on the 28th February 1901, sent to the Census Commissioner of India, as provisional totals.

	Christians.		Hindus.		Mahomedans.		Buddhists.		Other Castes.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Civil . . .	42	...	40	...	18	...	...	...	...	...	100	...
Military . .	162	...	166	...	183	...	...	...	...	...	511	...
Marine . . .	22	...	5	...	72	...	1	...	...	...	100	...
Police . . .	2	...	369	...	161	...	...	...	...	...	532	...
Free Residents .	21	60	514	525	195	148	...	1	1	...	731	734
Convicts . . .	40	2	6,582	529	2,768	191	1,817	8	10	...	11,217	730
Conditionally released convicts . .	...	...	41	12	3	1	...	...	...	...	44	13
Children of all ranks .	49	37	526	444	196	140	2	...	...	...	773	621
											14,008	2,098
											16,106	

Area Figure in the Census Returns, Table I.—As Port Blair, *i.e.*, the Penal Settlement, comprises officially the whole South Andaman, 473 square miles, of which 327 square miles has been taken up so far, and as all the Census Tables, except No. II (Variation in Populations since 1872 by Provinces), apply only to the Penal Settlement, the tabulators have found a difficulty with column 2 of Table I, "Area in square miles"; and in any case have entered a wrong figure. If the area of the Settlement actually occupied is only to be taken into consideration, then it should be 327 square miles. If the whole area under the Administration is to be considered, then it should be 3,143 square miles. In the body of this Report the figures which have been worked upon have been taken as follows:—

Penal Settlement	327	square miles.
Remainder of the Andamans . . .	2,181	„ „
Nicobars	635	„ „
Total .	3,143	„ „

Remarks on Table I, Totals.—The Penal Settlement has been taken as possessing a rural population spread over 63 "stations" and villages. By "station" is meant a place where "labouring convicts" are kept and by "village" a place occupied by free persons or "self-supporter convicts." There are 29 stations and 34 villages on this definition.

In the same table, "occupied houses 2,550," include convict and other barracks and jails, where large numbers of persons live together; but it will be observed that the population even then only works out to 6·37 per house. This is accounted for by the fact that only a few self-supporters are married and that in the villages most of the houses are occupied by one person only. The great difference between the males and females in the Settlement is accounted for by the fact that the male convicts number 11,217 and the female 730, and that among the free population the overwhelming majority are soldiers and police, either unmarried or with families at their homes elsewhere.

In brief the Penal Settlement statistics can be shown thus—

Port Blair Penal Settlement.

Area, Houses and Population.

Occupied area in square miles.	Stations and Villages.	Population all rural.		
		Males.	Females.	Total.
327	63	14,122	2,134	16,256

Remarks on Table II, Variation.—There is no object in attempting any deductions from the variation table, as the population of the Settlement at any given time depends on the exigencies of the position of the Government in reference to its convicts.

PORT BLAIR PENAL SETTLEMENT.

Variation in Population since 1872.

	Persons.	Variation.	Net Variation.	Males.	Females.
1872			No statistics.		
1881	14,628	...	...	12,640	1,988
1891	15,609	+981	...	13,375	2,234
1901	16,256	+647	+1,628	14,122	2,134

Remarks on Table III, size of towns and villages.—Table III gives some insight into the working of the Settlement, as the eight places where more than 500 and the three where more than 1,000 persons live together are the largest "stations"; whereas the remaining 52 of less than 500 people are the smaller stations and the villages. The Table shows how the population is scattered over the 327 square miles of area.

PORT BLAIR PENAL SETTLEMENT.

Towns *nil.*

Villages classified by Population.

Total number.	Population.	Under 500.		500—1,000.		1,000—3,000.	
		No.	Population.	No.	Population.	No.	Population.
63	16,256	52	6,956	8	5,663	3	3,637

Remarks on Table VI, Religions.—Necessarily every religion in India is represented among the convicts, but it was impracticable to classify Hindus into Brahmans, Arya and Brahmo, as convicts do not form a class who are at all sure about nice distinctions in religious matters. The Sikhs shown are represented chiefly in the Military Police Battalion, the Buddhists by the Burman convicts and the Christians by the British Infantry garrison and the officials. It is to be noted that not one person is returned as a Jew among all the convicts. The six Animists returned are all convicts, *viz.*, 2 Kharwar, 2 Malays, 2 Santals. The 7 Nicobarese in the Penal Settlement who are Animists are not so returned. This part of the table is probably in error.

In the population of the whole islands the Nicobarese and Andamanese would, except a few Christian and Mahomedan converts and a few foreigners in the Nicobars, all be returned as Animists, which would bring up the Animistic figures to over 8,000. The Nicobarese might be doubtfully returned as belonging to the Shamanist branch of the Animists, but I would prefer to call them simply Animists. The Andamanese have no decided leanings to either fetichism or shamanism in their religious ideas, so far as I can judge.

PORT BLAIR PENAL SETTLEMENT.

Population by Religion.

	Total.	Male.	Female.
All religions	16,256	14,122	2,134
Hindu	9,264	7,847	1,417
Sikh	370	326	44
Jain	61	49	12
Buddhist	1,860	1,848	12
Zoroastrian	2	2	...
Musalman	4,207	3,678	529
Christian	486	366	120
Animistic	6	6	...

Remarks on Table VII, Civil Condition.—The age and sex figures in Table VII are no criterion of the local tendencies of the population, as the great majority of every part of it—children and adults—are subject to migration and change according to the exigencies of the Government rules under which they live: the convicts and their families under the release rules: the Government establishments and their familes according to the orders of the Government transferring them elsewhere at any moment. So no proportions can be worked out at all; such as children to adults, length of life, and so on. A few observations can be made, however, on the figures which may be useful.

The old persons in the Settlement are to be found among (1) convicts sentenced in advancing life, (2) ex-convicts who have settled locally, and (3) dependents upon the small free population.

The Hindu figures for females "unmarried" are of much interest.

Age.	Total females.	Married.	Unmarried.	Widows.
Under 5 . . .	182	2	180	...
5—10 . . .	126	11	115	...
10—15 . . .	123	38	82	3
15—20 . . .	101	79	15	7
	532		532	

After and in a few cases under 20 the only unmarried Hindu females are convicts.

The very small number of Hindu female children married is primarily due to the rule, for strong administrative reasons, which does not recognise infant marriages under 16 in the case of the female children of convicts (self-supporters). But it would appear that this rule is affecting the custom of the whole Hindu population, so that even out of 101 girls of all sorts (children of the free and convicts) between 15 and 20 only 79 are married. The number of very young widows is also necessarily in quite small proportion.

The general civil condition table of the Settlement may be shown as follows:—

PORT BLAIR PENAL SETTLEMENT.

General Civil Condition Table.

	0—5.		5—10.		10—15.		15—20.		20 and over.		Totals.		
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Persons.
Married .	...	2	12	11	15	46	49	115	9,183	1,025	9,259	1,199	10,458
Unmarried .	297	266	236	190	174	122	161	25	2,894	22	3,762	625	4,387
Widowed .	...	...	...	...	2	5	3	13	1,096	292	1,101	310	1,411
TOTAL .	297	268	248	201	191	173	213	153	13,173	1,339	14,122	2,134	16,256

Remarks on Table VIII, Education.—In Part I there is a serious error in that the Sikhs and Jains are omitted from the tabulation and the table is, in itself, otherwise incomplete.

In Table V (not printed) these classes were returned thus:—

	Males.	Females.
Sikhs	370	326	44
Jains	61	49	12
TOTAL .	431	375	56

But the residue for these two classes combined after adding up the other lasses in Table VIII, Part I, are as follows :—

		Males.	Females.
All religions	16,256	14,122	2,134
Hindus	15,981	13,881	2,086
Buddhists			
Musulmans			
Christians			
Animists			
Others			
Balance for Sikhs and Jains .	275	241	48

The figures will not nearly balance anyhow and the table is useless for ascertaining the proportion of literate to illiterate in th Sikhs of the Police force, which is a pity.

Again, the returns of illiterate and literate children and young persons work out as follows :—

MALES.

	All Religions.			Christians.		
Age.	Total.	Illiterate.	Literate.	Total.	Illiterate.	Literate.
0—10 .	545	456	89	41	27	14
10—15 .	191	82	109	8	3	5
15—20 .	213	104	109	9	5	4
TOTAL .	949	642	307	58	35	23
			FEMALES.			
0—10 . .	469	427	42	37	22	15
10—15 .	173	138	35	10	...	10
15—20 .	153	127	26	10	5	5
TOTAL .	795	692	103	57	27	30

Every convict's (self-supporter's) child, male or female, is compelled to attend a school and consequently the returns for all religions, excluding Christians, between the ages of 10 and 20 are inaccurate. Christian children are generally withdrawn from the Settlement before 10 years of age.

Further the columns 11 to 16 seem to have been misapprehended, as no Buddhist is returned as literate in any vernacular, whereas the Buddhists in the Settlement are chiefly Burman males, who are largely literate in their own vernacular, and no Christian has been returned out of all the establishments as literate in any vernacular or other language than English, which is not at all the fact.

The remarks on Part I of Table VIII will affect Part II and Part III where the persons " literate in other languages " excluding English are all stated to be Christians, which can hardly be the case.

On the whole it must be considered that this part of the Census work was misapprehended by the enumerators, and that the table is consequently inaccurate in all its parts.

The general results as recorded are shown in the following tables :—

PORT BLAIR PENAL SETTLEMENT.

General Table of Education.

	0—10.			10—15.			15—20.			20 and over.			Totals.		
	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.
Illiterate .	883	456	477	220	82	138	231	104	127	10,389	9,171	1,218	11,723	9,813	1,910
Literate .	131	89	42	144	109	35	135	109	26	4,123	4,002	121	4,533	4,309	224
TOTAL .	1,014	545	469	364	191	173	366	213	153	14,512	13,173	1,339	16,256	14,122	2,134

Literary.

	0—10.			10—15.			15—20.			20 and over.			Totals.		
	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.
Provincial Vernaculars.	80	62	18	101	82	19	98	79	19	3,274	3,242	32	3,553	3,465	88
Other languages.	24	12	12	10	3	7	5	2	3	269	226	43	308	243	65
English .	27	15	9	33	24	9	32	28	4	580	534	46	672	601	71
TOTAL .	131	89	42	144	109	35	135	109	26	4,123	4,002	121	4,533	4,309	224

Remarks on Table X, Languages.—In such a population as that of Port Blair, one would expect to find all the languages of the Indian Empire represented as the mother tongue of some of the inhabitants. According to Table X, 41 of the languages in the Indexes of Languages prepared for the Census are returned as spoken in Port Blair, but no doubt a philologist would discover a great many more.

The Vernacular of the Settlement has been returned by the people as Urdu. It is really hybrid Urdu filled with local terms partly derived from English, partly from Urdu and partly specialised adaptations of all sorts of words to local requirements and circumstances. It is spoken in every variety of corruption and with every kind of accent. Burmese is now also largely spoken by the officials.

In the circumstances no object could be gained by filling in Part II of this table and it has not been done.

Languages as a Test of Origin in Convicts.—Language is nevertheless presumably a fair test of origin in the case of the convicts, and for that reason their places of origin are below tested by a comparative table of language with birthplace by provinces.

For this purpose the languages returned have been assigned to the various provinces as under, and it has been necessary to group several provinces and administrations together :—

Indian Provinces.	Mother tongues of residents in Port Blair.
Port Blair	Urdu.
Bengal with States and Assam . . .	Bengali, Oriya, Assamese.
Bombay with States and Baroda . .	Gujarati, Marathi, Kachchhi, Kathiyawadi, Khatri, Konkani.
Burma	Arakanese, Burmese, Karen, Shan, Talaing, Siamese, Chinese.
Madras with States, Berar, Hyderabad, Mysore, Laccadives	Tamil, Telugu, Canarese, Malayalam, Gadaba, Bellara.
Panjab with States, Kashmir . . .	Panjabi, Dhanni, Dogri, Pahari, Peshawari, Pushto, Persian.
Sindh	Balochi, Brahui, Sindhi.
United Provinces with States and Central India and Central Provinces with States .	Hindi, Khweymi, Naipali, Khas, Gondi, Kharia.
Rajputana, with Ajmer-Merwara . .	Marwari.
Nicobars	Nicobari.
straits Settlements	Malay.

On this basis place of origin by language and birthplace works out as under, and it will be seen that there are reasons why language can never be more than an approximate test of place of origin. The languages overlap territorial boundaries too much and the great spread of some languages, such as Hindi, involves the grouping together of too large areas, and the distinctions between the divisions of such general terms for languages as Hindi will never be grasped by enumerators:—

PORT BLAIR PENAL SETTLEMENT.

Place of Origin by Language and Birthplace.

	Population by Language.	Population by Birthplace.
Bengal and Assam	1,766	2,596
Bombay	1,149	829
Burma	2,154	1,981
Madras	1,429	1,813
Panjab	1,761	2,119
Sindh	221	90
United Provinces and Central Provinces	4,903	4,270
Rajputana	47	109
Nicobars	2	7
Straits Settlements	10	10
Portuguese Settlements	16	14
Port Blair	2,419	2,030
Others	437	388
TOTAL	16,256	16,256

Place of Conviction an Important Return.—A return of place of conviction could, however, be accomplished at a Census, which would go far to give valuable information in regard to convicts in relation to the wandering habits of heinous offenders, provided the returns of birthplace for free and convict were made out separately for Port Blair.

Remarks on Table XI, Birthplace.—In a Settlement consisting chiefly of convicts, their guards and their superintendents, the Birthplace Tables naturally extend over the whole Empire and to places beyond it. They have no other significance as, since the birthplaces of convicts have not been kept separate from those of the free, they do not properly serve to bring out the proportion of convicts from each Province or to check birthplace with place of conviction, which would be of interest.

As to detailed figures the Nicobars should not have been included as a place beyond the *Province*, though they are beyond the "Settlement."

The men shown as born in the Laccadives formed part of the crew of the mail steamer in the Harbour of Port Blair on the night of the Census.

The Madras figures included the Madras Native Infantry Detachment, the Panjab figures the majority of the Military Police Battalion, the British Islands the British Infantry Detachment.

In "Countries in Asia beyond India" the figures relate chiefly to persons convicted in British Indian Territory. "Countries in Europe, America and Africa" relate almost exclusively to the superintending and guarding establishments.

As has been already said, a number of interesting statistics regarding the convicts could be procured from a knowledge of their birthplace and place of conviction and though the statistics of 1901 are not confined to the convicts, yet they serve as a general indication, on the assumption that $\frac{3}{4}$ths of the population of the Settlement are convicts, of the numbers sent to Port Blair by the various administrations in India. An abstract of Table XI is therefore given below to exhibit this.

PORT BLAIR PENAL SETTLEMENT.

Birthplace Table, India.

Province of Origin.	Population.			Native State of Origin.	Population.		
	Persons.	Male.	Female.		Persons.	Male.	Female.
Ajmer-Merwara	25	33	2	Bengal States	31	22	9
Assam	139	126	13	Hyderabad	225	218	7
Bengal	2,426	2,198	228	Baroda	1	1	...
Berar	79	62	17	Mysore	150	140	10
Bombay	773	648	125	Kashmir	4	4	...
Burma	1,981	1,966	15	Rajputana	109	94	15
Central Provinces	490	427	63	Central India	291	276	15
Madras	1,299	1,170	129	Bombay States	55	48	7
Panjab	2,187	1,938	249	Madras States	41	40	1
Sindh	90	86	4	Central Provinces States	87	86	1
United Provinces	3,337	3,004	333	United Provinces States	65	58	7
Laccadives	19	19	...	Panjab States	28	26	2
Nicobars	7	7	...	Portuguese Settlement	14	13	1
				French Settlement	4	1	3
TOTAL BRITISH INDIA	12,852	11,674	1,178	TOTAL NATIVE STATES	1,105	1,027	78

Other Asiatic Countries.

Adjacent to India.	Persons.	Male.	Female.	Remote from India.	Persons.	Male.	Female.
Baluchistan	5	5	...	Turkistan	1	1	...
Afghanistan	32	32	...	China	1	1	...
Nepal	9	9	...	Persia	4	4	...
Ceylon	7	7	...	Arabia	1	1	...
Straits Settlements	10	9	1	Turkey in Asia	1	1	...
				Asia (unspecified)	1	...	1
TOTAL	63	62	1	TOTAL	9	8	1

Other Countries.

British Isles	190	177	13	Canada	3	2	1
Gibraltar	1	1	...	Africa	1	1	...
Germany	1	1	...	At sea	1	1	...
TOTAL EUROPE	192	179	13	TOTAL ELSEWHERE	5	4	1

Local-born Population.—The growth of the indigenous (local-born) population which, for various social reasons, is certain to become *sui generis* and clearly differentiated in many respects from the corresponding populations on the continent, is well worth watching in its every aspect. The following table gives some idea of it :—

PORT BLAIR PENAL SETTLEMENT.

Local-born Population.

	Total.	Male.	Female.
1881	754	488	266
1891	1,499	1,288	211
1901	2,030	1,168	862

In 1891 there were returned 1,909 persons as born in the Penal Settlement (1,523 males and 386 females), of whom 410 (235 males and 175 females) were returned as living in India and distributed as in the next table. It is always of

interest to know what becomes of convicts' children taken away with their parents on release, and it would seem, owing to the disproportion of the sexes, that the returns of 1891 were not accurate in this respect. Perhaps the "India" Volume of 1901 will give more valuable returns.

Distribution of persons living in India and born at Port Blair in 1891.

Provinces.	Total.	Male.	Female.	Native States.	Total.	Male.	Female.
Assam	2	...	2	Hyderabad	3	2	1
Bengal	46	39	7	Mysore	9	7	2
Berar	4	1	3	Panjab States	1	1	...
Bombay	28	12	16				
Sindh	7	2	5				
Burma	12	6	6				
Central Provinces	23	12	11				
Coorg	1	...	1				
Madras	72	33	39				
United Provinces	57	30	27				
Oudh	16	14	2				
Panjab	129	76	53				
TOTAL	397	225	172	TOTAL	13	10	3

Remarks on Table XII, Infirmities.—The Infirmities Table is almost confined to the insane and the lepers and thus to convicts who have become insane or developed leprosy after arrival.

Insanity even, as the returns show, to the extent of 11·20 per mille of the convict population may be expected among those convicted of serious crime, and it has been otherwise noticed that for social reasons lepers are liable to commit serious crime also. The proportion in Port Blair of lepers to convict male population is 2·80 per mille, which is presumably much higher than the proportion of lepers to population elsewhere. Blindness is sometimes self-caused by the convicts, who occasionally put lime and other deleterious substances into the eyes to avoid work.

Of the whole afflicted population only 4 are children under 10: *viz.*, males—1 insane, 1 deaf mute, 1 blind: female—1 insane.

PORT BLAIR PENAL SETTLEMENT.

Infirmities.

	Total afflicted.	Insane.	Deaf mute.	Blind.	Leper.
Males	194	145	6	9	34
Females	2	2	...	...	...
TOTAL	196	147	6	9	34

Remarks on Table XIII, Caste.—For reasons already given a vast variety of castes may be expected to find a place in Port Blair and since the population covers all India many mistakes in attribution may also be expected, *e.g.*, 5 Karens are entered as Hindus, presumably a complete error, as such Karens as one would expect at Port Blair are more likely to be Christian converts than anything else. Also a long list of unidentified castes must be expected.

The Buddhist list of "castes" includes some unexpected and possibly interesting items.

The Animists returned include 2 Kharwar, 2 Malay and 2 Santal. Among the Hindus are returned 2 Kharwar, 2 Malay, 46 Santal. Unless one knew the individual cases one would expect a Malay to be a Muhammadan, and the 7 Nicobarese of Table XI, who are Animists and never anything else (a very few

converts to Christianity or Muhammadanism excepted) have found no place in Table XIII. But accuracy in returns of "caste" in such a place as Port Blair is not practicable.

The informing statistics regarding the people would be those relating to the *local castes* that are springing up as a result of the system adopted for the marriage of Hindu convicts in the Settlement. These castes bear the familiar names, but with a fundamental difference in sense, as is explained in the Chapter on Ethnography.

Remarks on Table XV, Occupations.—The convicts come under the definition of "independent" occupations. So the Table does not show what they do or by whom the necessary work of the Settlement is performed.

Leaving out the columns for the public services, the occupations recorded show how the ex-convict and free population supports itself, but nothing more, as the occupations returned could not support the place.

PORT BLAIR PENAL SETTLEMENT.

Livelihood of settlers (excluding convicts and Government servants).

	Workers.	Dependants.	Total.
Provision and care of animals	19	4	23
Agriculture	479	1,015	1,494
Personal, Household and Sanitary service	90	116	206
Food, Drink, and Stimulants	58	61	119
Light, firing, and forage	7	4	11
Buildings	1	2	3
Supplementary Requirements	9	12	21
Textile fabrics and dress	22	5	27
Metals and precious stones	15	34	49
Glass, earthen and stoneware	1	5	6
Wood, cane, and leaves	14	11	25
Leather	6	10	16
Commerce	85	93	178
Transport and Storage	98	27	125
Learned and artistic professions	91	118	209
Earthwork and general labour	18	13	31
Indefinite occupations	64	34	98

Disreputable occupations are not officially permitted in the Penal Settlement, though prostitutes and those about them exist *sub rosâ* in greater numbers than is at all desirable.

Of Government servants 9 are returned as partially agriculturists and of the 1,047 working settlers who have other means of livelihood 88 are also so returned. Of those returned as of "independent occupation" 11,732 are shown as at the public charge and 540 as partially agriculturist. But the convicts numbered 11,947 and besides these 15 "independents" are returned as living on "property and alms." So this figure should apparently have been 11,962. Again of the convicts, 1,117 self-supporter workers are partially agriculturist, not 540 as shown. It seems to be therefore clear that, in compiling this figure, the enumerators were under some misapprehension as to how the semi-free self-supporters were to be treated in regard to occupation.

Also in the Government services, Class A, there is a considerable muddle, as the persons occupied in administration and defence have obviously been mixed up. Apparently the Native Infantry have been included under item "4. Constables, messengers, etc.," instead of under item "12. Non-Commissioned officers and privates." Again in item 18, the seamen on the Station Steamer have either been omitted or included elsewhere. On the Census night the Government servants were as under:—

Civil	100
Military	511
Marine	100
Police	532

APPENDIX A.

CENSUS TABLES, 1901.

1901.

TABLE I.

AREA, HOUSES, AND POPULATION.

PROVINCE, STATE OR AGENCY.	Area in square miles.	Towns.	Stations and Villages.	OCCUPIED HOUSES.			POPULATION.								
							PERSONS.			MALES.			FEMALES.		
				Totals.	In towns.	In villages.	Total.	Urban.	Rural.	Total.	Urban.	Rural.	Total.	Urban.	Rural.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2. Andamans and Nicobars (*Port Blair*).	1,463	...	63	2,550	...	2,550	16,256	...	16,256	14,122	...	14,122	2,134	...	2,134

TABLE II.

VARIATION IN POPULATION SINCE 1872.

PROVINCE, STATE OR AGENCY.	PERSONS.				VARIATION INCREASE (+) OR DECREASE (−)		
	1901.	1891.	1881.	1872.	1891 to 1901.	1881 to 1891.	1872 to 1881.
1	2	3	4	5	6	7	8
Andamans and Nicobars .	16,256	15,609	14,628	not available	+647	+981	not available
Andamanese . . .	1,882	not known.					
Nicobarese	6,511						
	24,649						

	Net variation in period 1872—1901 Increase (+) or Decrease (−).	MALES.				FEMALES.			
		1901.	1891.	1881.	1872.	1901.	1891.	1881.	1872.
	9	10	11	12	13	14	15	16	17
Andamans and Nicobars . .	+1,628	14,122	13,375	12,640	not available.	2,134	2,234	1,988	not available.
Andamanese		1,036				846			
Nicobarese		3,537				2,974			
		18,695				5,954			

1901.

TABLE III.

Towns and Villages Classified by Population.

Province, State or Agency.	Total number of inhabited Towns and Villages.	Population.	Under 500.		500—1,000.		1,000—2,000.	
			Number.	Population.	Number.	Population.	Number.	Population.
1	2	3	4	5	6	7	8	9
2. Andamans and Nicobars . . (*Port Blair*)	63	16,256	52	6,956	8	5,663	3	3,637

TABLE VI.

The Population by Religion.

Province State or Agency.	A—All Religions.			I.—INDO-ARYAN.								
				B—Total Hindu.			C—Sikh.			D—Jain.		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
1	2	3	4	5	6	7	17	18	19	20	21	22
2. Andamans and Nicobars (*Port Blair*).	16,256	14,122	2,134	9,264	7,847	1,417	370	326	44	61	49	12

	I.—INDO-ARYAN.			II.—IRANIAN.			III.—SEMITIC.						IV.—PRIMITIVE.		
	E—Buddhist.			F—Zoroastrian (Parsi.)			G—Musalman.			H—Christians.			J—Animistic.		
	Total.	Males.	Females	Total.	Males.	Females.	Total.	Males.	Females	Total.	Males.	Females.	Total.	Males.	Females.
	23	24	25	26	27	28	29	30	31	32	33	34	38	39	40
2. Andamans and Nicobars. (*Port Blair*).	1,860	1,848	12	2	2	...	4,207	3,678	529	486	366	120	6	6	...

1901.

TABLE VII.

Age, Sex, and Civil Condition.

Age.	Population.			Unmarried.			Married.			Widowed.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
A.—INDIA.												
0—1	121	58	63	121	58	63	...	...	...	...	...	...
1—2	83	47	36	83	47	36	...	...	...	...	...	...
2—3	116	56	60	115	56	59	1	...	1	...	...	...
3—4	135	80	55	134	80	54	1	...	1	...	...	...
4—5	110	56	54	110	56	54	...	...	...	...	...	...
Total 0—5	565	297	268	563	297	266	2	...	2	...	...	...
5—10	449	248	201	426	236	190	23	12	11	...	...	...
10—15	364	191	173	296	174	122	61	15	46	7	2	5
15—20	366	213	153	186	161	25	164	49	115	16	3	13
20—25	1,121	974	147	485	479	6	572	454	118	64	41	23
25—30	1,919	1,721	198	679	672	7	1,083	928	155	57	121	36
30—35	2,911	2,636	275	664	658	6	2,031	1,803	228	16	175	41
35—40	2,110	1,959	151	393	392	1	1,533	1,403	130	184	164	20
40—45	2,518	2,278	240	355	355	...	1,908	1,724	184	255	199	56
45—50	1,140	1,051	89	127	126	1	888	822	66	125	103	22
50—55	1,340	1,213	127	107	107	...	1,079	997	82	154	109	45
55—60	405	375	30	34	33	1	317	297	20	54	45	9
60 and over	1,048	966	82	72	72	...	797	755	42	179	139	40
TOTAL	16,256	14,122	2,134	4,387	3,762	625	10,458	9,259	1,199	1,411	1,101	310
B.—HINDU.												
0—1	74	30	44	74	30	44	...	...	...	...	...	...
1—2	58	29	29	58	29	29	...	...	...	...	...	...
2—3	68	33	35	67	33	34	1	...	1	...	...	...
3—4	95	55	40	94	55	39	1	...	1	...	...	...
4—5	66	32	34	66	32	34	...	...	...	...	...	...
Total 0—5	361	179	182	359	179	180	2	...	2	...	...	...
5—10	270	144	126	247	132	115	23	12	11	...	...	...
10—15	247	124	123	193	111	82	49	11	38	5	2	3
15—20	221	120	101	98	83	15	114	35	79	9	2	7
20—25	554	472	82	191	189	2	328	261	67	35	22	13
25—30	973	851	122	265	263	2	611	510	101	97	78	19
30—35	1,563	1,396	167	290	287	3	1,146	1,004	142	127	105	22
35—40	1,080	972	108	189	189	...	792	698	94	99	85	14
40—45	1,506	1,330	176	187	187	...	1,150	1,011	139	169	132	37
45—50	633	573	60	62	61	1	503	458	45	68	54	14
50—55	887	795	92	61	61	...	721	662	59	105	72	33
55—60	261	24.	20	23	22	1	209	194	15	29	25	4
60 and over	708	650	58	44	44	...	538	510	28	126	96	30
TOTAL HINDUS	9,264	7,847	1,417	2,209	1,808	401	6,186	5,366	820	869	673	196
C.—SIKH.												
0—1	6	4	2	6	4	2	...	...	...	...	...	...
1—2	3	2	1	3	2	1	...	...	...	...	...	...
2—3	2	2	...	2	2	...	...	...	...	...	...	...
3—4	1	1	...	1	1	...	...	...	...	...	...	...
4—5	1	1	...	1	1	...	...	...	...	...	...	...
Total 0—5	13	10	3	13	10	3	...	...	...	...	...	...
5—10	14	10	4	14	10	4	...	...	...	...	...	...
10—15	9	6	8	8	6	2	1	...	1	...	...	...
15—20	4	4	...	4	4	...	...	...	...	...	...	...
20—25	50	45	5	17	17	...	30	25	5	3	3	...
25—30	67	59	8	21	21	...	42	36	6	4	2	2
30—35	51	45	6	11	11	...	37	31	6	3	3	...
35—40	51	49	2	6	6	...	41	39	2	4	4	...
40—45	58	48	10	8	8	...	41	35	6	9	5	4
45—50	18	18	...	1	1	...	17	17	...	...	...	...
50—55	22	20	2	1	1	...	21	19	2	...	...	...
55—60	7	6	1	...	...	...	7	6	1	...	...	...
60 and over	6	6	...	1	1	...	4	4	...	1	1	...
TOTAL SIKH	370	326	44	105	96	9	241	212	29	24	18	6

1901.

TABLE VII.—*contd.*

AGE, SEX, AND CIVIL CONDITION—*contd.*

AGE.	POPULATION.			UNMARRIED.			MARRIED.			WIDOWED.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
D.—JAIN.												
0—1	1	1	...	1	1	...	...	...	...	...	...	...
1—2	1	...	1	1	...	1	...	...	...	...	...	...
2—3	...	...	...	...	...	...	...	...	...	...	...	...
3—4	...	...	...	...	...	...	...	...	...	...	...	...
4—5	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL 0—5	2	1	1	2	1	1	...	...	...	...	...	...
5—10	...	...	...	...	...	...	...	...	...	...	...	...
10—15	...	...	...	...	...	...	...	...	...	...	...	...
15—20	1	1	...	...	...	...	1	1	...	...	...	...
20—25	6	3	3	...	...	...	3	3	...	3	...	3
25—30	9	9	...	3	3	...	6	6	...	...	...	...
30—35	14	13	1	1	1	...	11	11	...	2	1	1
35—40	6	6	...	1	1	...	5	5	...	...	...	...
40—45	10	7	3	...	...	...	8	6	2	2	1	1
45—50	3	2	1	...	...	...	3	2	1	...	...	...
50—55	6	5	1	1	1	...	4	4	...	1	...	1
55—60	3	1	2	...	...	...	1	...	1	2	1	1
60 and over	1	1	...	...	...	...	1	1	...	...	...	...
TOTAL JAIN	61	49	12	8	7	1	43	39	4	10	3	7
E.—BUDDHIST.												
0—1	1	1	...	1	1	...	...	...	...	...	...	...
1—2	...	...	...	...	...	...	...	...	...	...	...	...
2—3	2	1	1	2	1	1	...	...	...	...	...	...
3—4	...	...	...	...	...	...	...	...	...	...	...	...
4—5	1	1	...	1	1	...	...	...	...	...	...	...
TOTAL 0—5	4	3	1	4	3	1	...	...	...	...	...	...
5—10	1	...	1	1	...	...	...	...	...	...	...	...
10—15	3	2	1	3	2	1	...	...	...	...	...	...
15—20	12	11	1	8	8	...	3	2	1	1	1	...
20—25	86	85	1	44	44	...	35	34	1	7	7	...
25—30	255	255	...	117	117	...	128	128	...	10	10	...
30—35	549	547	2	145	145	...	385	384	1	19	18	1
35—40	418	417	1	78	78	...	315	314	1	25	25	...
40—45	291	290	1	43	43	...	236	235	1	12	12	...
45—50	142	139	3	17	17	...	113	110	3	12	12	...
50—55	65	65	...	3	3	...	57	57	...	5	5	...
55—60	19	19	...	2	2	...	15	15	...	2	2	...
60 and over	15	15	...	3	3	...	12	12	...	...	...	...
TOTAL BUDDHIST	1,860	1,848	12	468	465	3	1,299	1,291	8	93	92	1
F.—ZOROASTRIAN (PARSI).												
0—1	...	...	...	...	...	...	...	...	...	...	...	...
1—2	...	...	...	...	...	...	...	...	...	...	...	...
2—3	...	...	...	...	...	...	...	...	...	...	...	...
3—4	...	...	...	...	...	...	...	...	...	...	...	...
4—5	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL 0—5	...	...	...	...	...	...	...	...	...	...	...	...
5—10	...	...	...	...	...	...	...	...	...	...	...	...
10—15	...	...	...	...	...	...	...	...	...	...	...	...
15—20	...	...	...	...	...	...	...	...	...	...	...	...
20—25	1	1	...	...	...	...	1	1	...	...	...	...
25—30	...	...	...	...	...	...	...	...	...	...	...	...
30—35	...	...	...	...	...	...	...	...	...	...	...	...
35—40	...	...	...	...	...	...	...	...	...	...	...	...
40—45	1	1	...	...	...	...	...	...	...	1	1	...
45—50	...	...	...	...	...	...	...	...	...	...	...	...
50—55	...	...	...	...	...	...	...	...	...	...	...	...
55—60	...	...	...	...	...	...	...	...	...	...	...	...
60 and over	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL ZOROASTRIAN	2	2	...	...	...	...	1	1	...	1	1	...

1901.

TABLE VII.—*concld.*

AGE, SEX, AND CIVIL CONDITION—*concld.*

AGE.	POPULATION.			UNMARRIED.			MARRIED.			WIDOWED.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
G.—MUSALMAN.												
0—1	33	20	13	33	20	13	...	...	...	...	...	...
1—2	17	13	4	17	13	4	...	...	...	...	...	...
2—3	35	17	18	35	17	18	...	...	...	...	...	...
3—4	31	19	12	31	19	12	...	...	...	...	...	...
4—5	32	16	16	32	16	16	...	...	...	...	...	...
TOTAL 0—5	148	85	63	148	85	63	...	...	...	...	...	...
5—10	123	72	51	123	72	51	...	...	...	...	...	...
10—15	86	50	36	73	46	27	11	4	7	2	...	2
15—20	110	69	41	64	58	6	40	11	29	6	...	6
20—25	322	279	43	153	152	1	152	117	35	17	10	7
25—30	492	434	58	170	167	3	278	238	40	44	29	15
30—35	679	601	78	200	198	2	418	356	62	61	47	14
35—40	519	487	32	108	108	...	359	332	27	52	47	5
40—45	628	580	48	117	117	...	453	419	34	58	44	14
45—50	328	308	20	46	46	...	244	228	16	38	34	4
50—55	351	322	29	41	41	...	269	250	19	41	31	10
55—60	108	102	6	8	8	...	82	79	3	18	15	3
60 and over	313	289	24	24	24	...	239	225	14	50	40	10
TOTAL MUSALMAN	4,207	3,678	529	1,275	1,122	153	2,545	2,259	286	387	297	93
H.—CHRISTIAN.												
0—1	6	2	4	6	2	4	...	...	...	...	...	...
1—2	6	3	3	6	3	3	...	...	...	...	...	...
2—3	8	4	4	8	4	4	...	...	...	...	...	...
3—4	7	4	3	7	4	3	...	...	...	...	...	...
4—5	10	6	4	10	6	4	...	...	...	...	...	...
TOTAL 0—5	37	19	18	37	19	18	...	...	...	...	...	...
5—10	41	22	19	41	22	19	...	...	...	...	...	...
10—15	18	8	10	18	8	10	...	...	...	...	...	...
15—20	19	9	10	13	9	4	6	...	6	...	...	...
20—25	96	82	14	76	73	3	20	9	11	...	...	...
25—30	121	113	8	105	103	2	15	9	6	1	1	...
30—35	56	34	22	18	17	1	34	16	18	4	1	3
35—40	37	29	8	10	9	1	23	17	6	4	3	1
40—45	23	21	2	2	2	...	17	15	2	4	4	...
45—50	17	12	5	...	...	...	10	9	1	7	3	4
50—55	8	6	2	...	...	...	6	5	1	2	1	1
55—60	8	6	2	1	1	...	4	3	1	3	2	1
60 and over	5	5	...	...	...	...	3	3	...	2	2	...
TOTAL CHRISTIAN	486	366	120	321	263	58	138	86	52	27	17	10
I.—ANIMISTIC.												
0—1	...	...	...	...	...	...	...	...	...	...	...	...
1—2	...	...	...	...	...	...	...	...	...	...	...	...
2—3	...	...	...	...	...	...	...	...	...	...	...	...
3—4	...	...	...	...	...	...	...	...	...	...	...	...
4—5	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL 0—5	...	...	...	...	...	...	...	...	...	...	...	...
5—10	...	...	...	...	...	...	...	...	...	...	...	...
10—15	...	...	...	...	...	...	...	...	...	...	...	...
15—20	...	...	...	...	...	...	...	...	...	...	...	...
20—25	2	2	...	1	1	...	1	1	...	...	...	...
25—30	...	...	...	...	...	...	...	...	...	...	...	...
30—35	1	1	...	...	...	...	1	1	...	...	...	...
35—40	...	...	...	...	...	...	...	...	...	...	...	...
40—45	3	3	...	...	...	...	3	3	...	...	...	...
45—50	...	...	...	...	...	...	...	...	...	...	...	...
50—55	...	...	...	...	...	...	...	...	...	...	...	...
55—60	...	...	...	...	...	...	...	...	...	...	...	...
60 and over	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL ANIMISTIC	6	6	...	1	1	...	5	5	...	...	...	...

1901

TABLE VIII.

EDUCATION.

1901.

TABLE

EDUCA

RELIGION AND AGE.	POPULA-					
	TOTAL.			ILLITERATE.		
	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7
						PART I.—
ALL RELIGIONS . . . TOTAL .	16,256	14,122	2,134	11,723	9,813	1,910
0—10 . .	1,014	545	469	883	456	427
10—15 . .	364	191	173	220	82	138
15—20 . .	366	213	153	231	104	127
20 and over .	14,512	13,173	1,339	10,389	9,171	1,218
B.—HINDU . . . . TOTAL .	9,264	7,847	1,417	7,368	6,049	1,319
0—10 . .	631	323	308	565	274	291
10—15 . .	247	124	123	160	58	102
15—20 . .	221	120	101	143	57	86
20 and over .	8,165	7,280	885	6,500	274	840
E.—BUDDHIST . . . TOTAL .	1,860	1,848	12	628	617	11
0—10 . .	5	3	2	5	3	2
10—15 . .	3	2	1	2	1	1
15—20 . .	12	11	1	7	6	1
20 and over .	1,840	1,832	8	614	607	7
OTHERS . . . . TOTAL .	158	136	8	...	...	...
0—10 . .	...	...	...	...	...	...
10—15 . .	4	3	1	...	...	...
15—20 . .	3	3	...	...	...	...
20 and over .	151	133	7	...	...	...
G.—MUSALMAN . . . TOTAL .	4,207	3,678	529	3,364	2,873	491
0—10 . .	271	157	114	240	136	104
10—15 . .	86	50	36	52	19	33
15—20 . .	110	69	41	71	36	35
20 and over .	3,740	3,402	338	3,001	2,682	319
H.—CHRISTIAN . . . TOTAL .	486	366	120	124	83	41
0—10 . .	78	41	37	49	27	22
10—15 . .	18	8	10	3	3	...
15—20 . .	19	9	10	10	5	5
20 and over .	371	308	63	62	48	14
I.—ANIMISTIC . . . TOTAL .	6	6	...	6	6	...
0—10 . .	...	...	...	...	...	...
10—15 . .	...	...	...	...	...	...
15—20 . .	...	...	...	...	...	...
20 and over .	6	6	...	6	6	...

VIII.

TION.

TION.			LITERATE IN						LITERATE IN ENGLISH.		
LITERATE.			PROVINCIAL VERNACULARS.			OTHER LANGUAGES.					
Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
8	9	10	11	12	13	14	15	16	17	18	19
GENERAL TABLE.											
4,533	4,309	224	3,553	3,465	88	308	243	65	672	601	71
131	89	42	80	62	18	24	12	12	27	15	12
144	109	35	101	82	19	10	3	7	33	24	9
135	109	26	98	79	19	5	2	3	32	28	4
4,123	4,002	121	3,274	3,242	32	269	226	43	580	534	46
1,896	1,798	98	1,688	1,590	98	...	...	...	208	208	...
66	49	17	65	48	17	...	...	...	1	1	...
87	66	21	78	57	21	...	...	...	9	9	...
78	63	15	64	49	15	...	...	...	14	14	...
1,665	1,620	45	1,481	1,436	45	...	...	...	184	184	...
1,232	1,231	1	...	...	...	...	...	...	8	8	...
...	...	...	...	...	...	...	...	...	...	...	...
1	1	...	...	...	...	...	...	...	...	...	...
5	5	...	...	...	...	...	...	...	...	...	...
1,226	1,225	1	...	...	...	...	...	...	8	8	...
158	136	8	4	3	1	...	...	...	14	14	...
...	...	...	...	...	...	...	...	...	...	...	...
4	...	1	1	...	1	...	...	...	3	3	...
3	3	...	3	3	...	...	...	...	...	...	...
1,151	133	7	...	...	...	...	...	...	11	11	...
843	805	38	736	699	37	...	...	...	107	106	1
31	21	10	31	21	10	...	...	...	...	...	...
34	31	3	26	23	3	...	...	...	8	8	...
39	33	6	28	22	6	...	...	...	11	11	...
739	720	19	651	633	18	...	...	...	88	87	1
362	283	79	...	...	...	...	...	...	335	265	70
29	14	15	...	...	...	...	...	...	26	14	12
15	5	10	...	...	...	...	...	...	13	4	9
9	4	5	...	...	...	...	...	...	7	3	4
309	260	49	...	...	...	...	...	...	289	244	45
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...

1901.

TABLE

EDUCA

AGE AND PROVINCE.		POPULA						
		TOTAL.			ILLITERATE.			LIT
		Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
1		2	3	4	5	6	7	8
								[PART II.—BY
2. ANDAMANS AND NICOBARS (*Port Blair.*)	TOTAL	16,256	14,122	2,134	11,723	9,813	1,910	4,533
	0—10	1,014	545	469	883	456	427	131
	10—15	364	191	173	220	82	138	144
	15—20	366	213	153	231	104	127	135
	20 and over	14,512	13,173	1,339	10,389	9,171	1,218	4,123
								PART III.—BY PROVINCES
								HIN
2. ANDAMANS AND NICOBARS (*Port Blair.*)	TOTAL	9,264	7,847	1,417	7,368	6,049	1,319	1,896
	0—10	631	323	308	565	274	291	66
	10—15	247	124	123	160	58	102	87
	15—20	221	120	101	143	57	86	78
	20 and over	8,165	7,280	885	6,500	274	840	1,665
								MUSAL
2. ANDAMANS AND NICOBARS (*Port Blair.*)	TOTAL	4,207	3,678	529	3,364	2,873	491	843
	0—10	271	157	114	240	136	104	31
	10—15	86	50	36	52	19	33	34
	15—20	110	69	41	71	36	35	39
	20 and over	3,740	3,402	338	3,001	2,682	319	739
								CHRIS
2. ANDAMANS AND NICOBARS (*Port Blair.*)	TOTAL	486	366	120	124	83	41	362
	0—10	78	41	37	49	27	22	29
	10—15	18	8	10	3	3	...	15
	15—20	19	9	10	10	5	5	9
	20 and over	371	308	63	62	48	14	309
								ANIM
2. ANDAMANS AND NICOBARS (*Port Blair.*)	TOTAL	6	6	...	6	6	...	...
	0—10	...	...	...	...	...	...	...
	10—15	...	...	...	...	...	...	...
	15—20	...	...	...	...	...	...	...
	20 and over	6	6	...	6	6	...	...

VIII—*contd.*

TION.

TION.		LITERATE IN						LITERATE IN ENGLISH.		
ERATE.		PROVINCIAL VERNACULARS.			OTHER LANGUAGES.					
Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
9	10	11	12	13	14	15	16	17	18	19
PROVINCES.										
4,309	224	3,553	3,465	88	308	243	65	672	601	71
89	42	80	62	18	24	12	12	27	15	12
109	35	101	82	19	10	3	7	33	24	9
109	26	98	79	19	5	2	3	32	28	4
4,002	121	3,274	3,242	32	269	226	43	580	534	46
AND MAIN RELIGIONS.										
DU.										
1,798	98	1,688	1,590	98	...	...	...	208	208	...
49	17	65	48	17	...	...	...	1	1	...
66	21	78	57	21	...	...	...	9	9	...
63	15	64	49	15	...	...	...	14	14	...
1,620	45	1,481	1,436	45	...	...	...	184	184	...
MAN.										
805	38	736	699	37	...	...	...	107	106	1
21	10	31	21	10	...	...	...	...	...	...
31	3	26	23	3	...	...	...	8	8	...
33	6	28	22	6	...	...	...	11	11	...
720	19	651	633	18	...	...	...	88	87	1
TIAN.										
283	79	...	...	...	308	243	65	335	265	70
14	15	...	...	...	24	12	12	26	14	12
5	10	...	...	...	10	3	7	13	4	9
4	5	...	...	...	5	2	3	7	3	4
260	49	...	...	...	269	226	43	289	244	45
ISTIC.										
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	..
...	...	...	...	...	...	...	...	...	...	...

1901.

TABLE X.

Language.

Province, State or Agency.	Population.			Vernaculars of India.			Vernaculars of Asiatic countries beyond India.			European Languages.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
2. Andamans and Nicobars. (*Port Blair.*)	16,256	14,122	2,134	15,908	13,851	2,057	16	13	3	332	258	74

Language.	Population.			Language.	Population.		
	Total.	Males.	Females.		Total.	Males.	Females.
Arakanese	14	14	...	Marwari	47	45	2
Assamese	8	8	...	Naipali (Khas)	2	2	...
Balochi	58	58	...	Nicobari	2	2	...
Bengali	1,441	1,299	142	Oriya	262	246	16
Bellara	47	44	3	Pahari	37	34	3
Brahui	1	1	...	Panjabi	1,298	1,106	192
Burmese	1,819	1,809	10	Pashto	355	345	10
Canarese	282	260	22	Persian	39	37	2
Dhanni	11	11	...	Peshawari	2	2	...
Dogri	19	19	...	Shan	13	12	1
Gadaba	1	1	...	Siamese	1	1	...
Goanese	9	9	...	Sindhi	162	154	8
Gondi	1	1	...	Talaing	389	359	30
Gujarati	226	205	21	Tamil	851	731	120
Hindi	4,898	4,128	770	Telugu	212	180	32
Kachchi	1	1	...	Urdu	2,419	1,869	550
Kathiyawadi	8	8	...	Armenian	1	1	...
Karen	11	11	...	Chinese	7	7	...
Khweymi	1	1	...	English	332	258	74
Kharia	1	1	...	Italian	1	1	...
Khatri	1	1	...	Portuguese	7	4	3
Konkani	2	2	...				
Marathi	911	791	120				
Malay	10	8	2	Total	16,256	14,122	2,134
Malayalam	36	35	1				

TABLE XI.

Birthplace.

Part I.—General Distribution.

Province, State, or Agency where Enumerated.	Total Population.			Country where born.								
				A.—Born in India.			B.—Born in countries adjacent to India.			C.—Born in other Asiatic countries.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
2. Andamans and Nicobars. (*Port Blair.*)	16,256	14,122	2,134	12,852	11,674	1,178	63	62	1	9	8	1

	D.—Born in countries in Europe.			E.—Born in Africa.			F.—Born in America.			H.—Born at Sea.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
	14	15	16	17	18	19	20	21	22	26	27	28
2. Andamans and Nicobars. (*Port Blair.*)	192	179	13	1	1	...	3	2	1	1	1	...

1901.

TABLE XI.

BIRTHPLACE.

Part II.—Detailed Distribution of Population by Birthplace.

Birthplace.	Population.		
	Persons.	Males.	Females.
A.—District within the Province.			
Port Blair	2,030	1,168	862
TOTAL A.	2,030	1,168	862
B.—Provinces, Districts or States in India beyond the Province.			
(1) BRITISH TERRITORY.			
Nicobars	7	7	...
Laccadives	19	19	...
TOTAL	26	26	...
BENGAL.			
Burdwan	25	21	4
Birbhum	29	24	5
Bankura	34	30	4
Midnapur	65	50	15
Hooghly	27	17	10
Howrah	8	8	...
24 Parganas	11	11	...
Calcutta	140	122	18
Nadia	17	16	1
Murshidabad	44	41	3
Jessore	58	53	5
Khulna	37	36	1
Rajshahi	56	54	2
Dinajpur	12	8	4
Jalpaiguri	10	6	4
Darjeeling	4	3	1
Rangpur	55	46	9
Bogra	27	25	2
Pabna	61	57	4
Dacca	140	134	6
Mymensingh	58	53	5
Faridpur	46	43	3
Backerganj	212	204	8
Tippera	11	11	...
Noakhali	20	18	2
Chittagong	56	49	7
Patna	25	21	4
Gaya	83	77	6
Shahabad	34	31	3
Saran	207	197	10
Champaran	12	9	3
Mozaffarpur	29	24	5
Darbhanga	14	11	3
Monghyr	37	29	8
Bhagulpur	26	22	4
Purnea	29	23	6
Malda	27	24	3
Sonthal Parganas	60	55	5
Cuttack	75	63	12
Balasore	20	20	...
Puri	18	16	2
Hazaribagh	20	19	1
Ranchi	66	58	8
Palamau	2	1	1
Manbhum	16	16	...
Singhbhum	11	7	4
Chota Nagpur (unspecified)	24	8	16
Unspecified	328	327	1
TOTAL	2,426	2,198	228
AJMERE-MERWARA.			
Ajmere-Merwara	25	23	2
TOTAL	25	23	2
ASSAM.			
Kamrup	4	4	...
Goalpara	1	1	...
Lakhimpur	45	43	2
Nowgong	8	7	1
Sylhet	50	41	9
Unspecified	31	30	1
TOTAL	139	126	13
BERAR.			
Amraoti	57	50	7
Akola	20	10	10
Ellichpur	2	2	...
TOTAL	79	62	17
BOMBAY.			
Ahmedabad	51	42	9
Ahmednagar	6	3	3
Belgaum	56	51	5
Bijapur	5	3	2
Dharwar	15	13	2
Kaira	2	1	1
Kanara	4	...	4
Khandesh	19	13	6
Kolaba	1	1	...
Panchmahal	1	1	...
Poona	50	39	11
Nasik	38	31	7
Ratnagiri	68	61	7
Broach	5	5	...
Satara	6	6	...
Sholapur	41	33	8
Surat	66	65	1
Thana	5	4	1
Unspecified	334	276	58
TOTAL	773	648	125

1901.

Part II.—Detailed Distribution of Population by Birthplace—contd.

Birthplace.	Population.		
	Persons.	Males.	Females.
SINDH.			
Shikarpur	60	57	3
Karachi	25	24	1
Unspecified	5	5	...
Total	90	86	4
BURMA.			
Arakan	73	72	1
Amherst	2	1	1
Akyab	2	1	1
Bassein	35	35	...
Bhamo	24	24	...
Hanthawadi	3	3	...
Henzada	13	13	...
Kyauksè	19	19	...
Mergui	65	65	...
Magwè	19	19	...
Mandalay	117	115	2
Meiktila	25	25	...
Minhla	12	12	...
Myingyan	25	25	...
North Arakan	140	140	...
Pakôkku	17	17	...
Pegu	42	42	...
Prome	36	36	...
Pyinmana	77	77	...
Rangoon	669	661	8
Ruby Mines	45	45	...
Sagaing	11	11	...
Salwin	20	20	...
Shwebo	21	21	...
Sandoway	35	35	...
Thôngwa	35	35	...
Thyetmyo	26	26	...
Toungu	17	16	1
Tavoy	15	15	...
Tharawadi	38	38	...
Unspecified	303	302	1
Total	1,981	1,966	15
CENTRAL PROVINCES.			
Balaghat	26	25	1
Betul	3	1	2
Bhandara	1	1	...
Bilaspur	6	2	4
Chanda	4	3	1
Chhindwara	6	6	...
Damoh	8	8	...
Jabbalpur	100	88	12
Hoshangabad	34	27	7
Nagpur	115	101	14
Narsingpur	25	20	5
Raipur	49	38	11
Seoni	36	35	1
Saugar	35	30	5
Sambalpur	41	41	...
Unspecified	1	1	...
Total	490	427	63
MADRAS.			
Anantapur	2	2	...
Bellary	158	146	12
North Arcot	29	22	7
Cuddapah	57	56	1

Birthplace.	Population.		
	Persons.	Males.	Females.
MADRAS—(*continued*).			
Chingleput	4	...	4
Coimbatore	2	1	1
Ganjam	65	65	...
Godavery	58	58	...
Karnal	37	37	...
Kistna	22	22	...
Madura	62	62	...
Malabar	101	94	7
Nellore	3	2	1
Nilgiris	2	1	1
Salem	119	117	2
South Arcot	1	1	...
Tanjore	39	34	5
Tinnevelly	35	34	1
Trichinopoly	39	35	4
Vizagapatam	68	59	9
Unspecified	396	322	74
Total	1,299	1,170	129
N.-W. P. AND OUDH. *(United Provinces.)*			
Agra	27	22	5
Aligarh	57	55	2
Allahabad	131	119	12
Azamgarh	50	37	13
Badaun	95	86	9
Bahraich	71	69	2
Ballia	29	25	4
Banda	74	64	10
Bara Banki	18	18	...
Bareilly	155	134	21
Basti	25	18	7
Benares	95	83	12
Bijnor	48	47	1
Bulandshahr	30	28	2
Cawnpore	154	130	24
Debra Dun	1	1	...
Etah	123	118	5
Etawah	18	18	...
Fyzabad	59	47	12
Farakhabad	106	100	6
Fatehpur	75	71	4
Garhwal	4	4	...
Ghazipur	35	28	7
Gonda	164	161	3
Gorakhpur	83	67	16
Hamirpur	54	48	6
Hardoi	79	70	9
Jalaun	6	6	...
Jaunpur	83	71	12
Fatehgarh	4	4	...
Kheri	17	17	...
Jhansi	84	75	9
Kumaun	15	6	9
Lalitpur	14	14	...
Lucknow	214	197	17
Mainpuri	106	102	4
Muttra	61	54	7
Meerut	124	120	4
Mirzapur	69	55	14
Moradabad	94	90	4
Muzaffarnagar	47	41	6
Partabgarh	57	49	8
Pilibhit	6	6	...
Rae Bareli	59	51	8
Saharanpur	55	54	1
Shajahanpur	97	90	7

1901.

Part II.—Detailed Distribution of Population by Birthplace—contd.

Birthplace.	Population.		
	Persons.	Males.	Females.
N.-W. P. & OUDH—(*continued*).			
Sitapur	104	92	12
Sultanpur	56	51	5
Tarai	2	1	1
Unao	97	84	13
Unspecified	6	6	...
TOTAL	3,337	3,004	333
PANJAB.			
Ambala	65	51	14
Amritsar	253	226	27
Bannu	63	55	8
Delhi	40	40	...
Dera Ismail Khan	28	26	2
Dera Ghazi Khan	55	50	5
Firozpur	59	52	7
Gujranwala	35	29	6
Gujrat	220	197	23
Gurdaspur	52	39	13
Gurgaon	22	20	2
Hazara	22	22	...
Hissar	9	8	1
Hosiarpur	50	40	10
Jalandhar	33	25	8
Jhang	43	40	3
Jhelum	128	110	18
Kangra	53	43	10
Karnal	30	24	6
Kohat	36	36	...
Lahore	113	105	8
Ludhiana	55	45	10
Montgomery	4	4	...
Multan	33	27	6
Mozaffargarh	17	17	...
Peshawar	244	238	6
Rawalpindi	137	115	22
Rohtak	25	24	1
Shahpur	43	37	6
Sialkot	69	59	10
Simla	5	5	...
Unspecified	146	129	17
TOTAL	2,187	1,938	249
TOTAL BRITISH TERRITORY	12,852	11,674	1,178
(2) NATIVE STATES.			
BENGAL STATES.			
Kuch Behar	15	13	2
Orissa Tributary States	16	9	7
TOTAL	31	22	9
HYDERABAD.			
Hyderabad	213	207	6
Aurangabad	9	9	...
Nander	2	2	...
Mehdak	1	...	1
TOTAL	225	218	7
BARODA.			
Baroda	1	1	...
TOTAL	1	1	...

Birthplace.	Population.		
	Persons.	Males.	Females.
MYSORE.			
Kadur	1	1	...
Shimoga	1	1	...
Bangalore	67	61	6
Chitaldrug	3	3	...
Unspecified	78	74	4
TOTAL	150	140	10
KASHMIR AND JAMMU.			
Kashmir	1	1	...
Jammu	3	3	...
TOTAL	4	4	...
RAJPUTANA.			
Alwar	4	4	...
Bharathpur	18	18	...
Bikanir	6	5	1
Dholpur	12	12	...
Jeypur	35	35	...
Kishengarh	2	...	2
Malwa	11	10	1
Oodeypur	2	...	2
Pertabgarh	13	5	8
Unspecified	6	5	1
TOTAL	109	94	15
CENTRAL INDIA STATES.			
Bhopal	4	4	...
Bundelkhund	14	12	2
Charkhari	16	16	...
Chattarpur	23	23	...
Datia	11	11	...
Dewas	14	14	...
Gwalior	69	69	...
Indore	50	47	3
Jhabua	1	1	...
Rajgarh	45	42	3
Ratlam	1	1	...
Rewah	38	31	7
Tonk	1	1	...
Malwa	4	4	...
TOTAL	291	276	15
BOMBAY STATES.			
Akkalkot	2	2	...
Bhor	3	2	1
Cutch	3	3	...
Kathiawar	19	18	1
Kolhapur	28	23	5
TOTAL	55	48	7
MADRAS STATES.			
Sandur	39	39	...
Travancore	2	1	1
TOTAL	41	40	1

1901.

Part II.—Detailed Distribution of Population by Birthplace—contd.

Birthplace.	Population.		
	Persons.	Males.	Females.
CENTRAL PROVINCES STATES.			
Kankar	1	...	1
Kalahandi	85	85	...
Nandgour	1	1	...
Total	87	86	1
N.-W. P. STATES. (*United Provinces.*)			
Rampur	65	58	7
Total	65	58	7
PANJAB STATES.			
Bhawalpur	2	2	...
Chamba	2	1	1
Kapurthala	5	4	1
Nabha	3	3	...
Patiala	16	16	...
Total	28	26	2
PORTUGUESE SETTLEMENT.			
Goa	14	13	1
Total	14	13	1
FRENCH SETTLEMENT.			
Pondicherry	4	1	3
Total	4	1	3
TOTAL NATIVE STATES AND FOREIGN SETTLEMENTS IN INDIA.	1,105	1,027	78
C.—Countries in Asia beyond India.			
(1) ADJACENT TO INDIA.			
Biluchistan	5	5	...
Afghanistan	32	32	...
Nepal	9	9	...
(1) ADJACENT TO INDIA—(*continued*).			
Ceylon	7	7	...
Straits Settlements and Malay States	10	9	1
Total	63	62	1
(2) REMOTE FROM INDIA.			
Turkistan	1	1	...
China	1	1	...
Persia	4	4	...
Arabia	1	1	...
Turkey in Asia	1	1	...
Unspecified	1	...	1
Total	9	8	1
Total Countries in Asia beyond India	72	70	2
D.—Countries in Europe.			
England and Wales	169	161	8
Scotland	11	9	2
Ireland	10	7	3
Gibraltar	1	1	...
Germany	1	1	...
Total Countries in Europe.	192	179	13
E.—Countries in America.			
Canada	3	2	1
Total Countries in America.	3	2	1
F.—Countries in Africa.			
Africa	1	1	...
Total Countries in Africa.	1	1	...
G.—At Sea.			
At Sea	1	1	...
Total at Sea	1	1	...
GRAND TOTAL	16,256	14,122	2,134

1901.

TABLE XII.

INFIRMITIES.—*Summary by Provinces.*

PROVINCE, STATE, OR AGENCY.	POPULATION AFFLICTED.			INSANE.			DEAF-MUTE.			BLIND.			LEPER.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2 Andamans & Nicobars (*Port Blair.*)	196	194	2	147	145	2	6	6	...	9	9	...	34	34	...

TABLE XII.

INFIRMITIES.—*Andamans and Nicobars.*

AGE.	POPULATION AFFLICTED.			INSANE.		DEAF-MUTE.		BLIND.		LEPER.	
	Persons.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12
0—1	1	1	...	...	...	1	...	...	...	...	...
1—2	...	...	...	...	...	...	...	...	...	...	...
2—3	...	...	...	...	...	...	...	...	...	...	...
3—4	...	...	...	...	...	...	...	...	...	...	...
4—5	...	...	...	...	...	...	...	...	...	...	...
TOTAL 0-5	1	1	...	...	...	1	...	...	...	...	...
5-10	3	2	1	1	1	...	...	1	...	...	...
10-15	...	...	...	...	...	...	...	...	...	...	...
15-20	6	6	...	5	...	1	...	...	...	...	...
20-25	17	17	...	15	...	2	...	...	...	...	...
25-30	25	25	...	23	...	...	...	1	...	1	...
30-35	37	36	1	30	1	1	...	1	...	4	...
35-40	36	36	...	24	...	...	...	...	...	12	...
40-45	14	14	...	9	...	1	...	2	...	2	...
45-50	19	19	...	14	...	...	...	...	...	5	...
50-55	8	8	...	6	...	...	...	2	...	1	...
55-60	16	16	...	11	...	...	...	...	...	5	...
60 and over	14	14	...	8	...	...	...	2	...	4	...
TOTAL	196	194	2	145	2	6	...	9	...	34	...

1901.

TABLE XIII.

Caste, Tribe, Race, or Nationality.

Part I.—Showing Distribution through India.

Caste and Province.	Persons.	Males.	Females.	Caste and Province.	Persons.	Males.	Females.
1	2	3	4	1	2	3	4
HINDU.				HINDU—(*continued*).			
Aboti (Bombay)	4	4	...	Bhawin (Bombay)	5	1	4
Agambodia (Bombay)	13	13	...	Bhil	92	90	2
Agamadia	7	7	...	Bhoi	3	3	...
Agarwala	12	8	4	Bhoti	1	1	...
Ager (Bombay)	2	2	...	Bhuinhar	19	18	1
Aghori	2	2	...	Bhuiya	8	7	1
Agrahari	2	2	...	Bhumij	4	4	...
Aguri	2	1	1	Biger (Bombay)	2	2	...
Aheria	4	4	...	Bind	4	4	...
Agyani (Bombay)	2	1	1	Binjhia	1	1	...
Ahir	609	491	118	Bogam (Madras)	2	2	...
Ahom	1	1	...	Boricha (Bombay)	1	1	...
Aiyarakam (Madras)	1	1	...	Boriya (Burma)	14	14	...
Aksali	1	1	...	Borsada (Bombay)	2	2	...
Amat	3	3	...	Brahman	892	779	113
Ambalakaram (Madras)	2	2	...	Brahman (Daibajna)	3	3	...
Ambattan	1	1	...	Bundkar (Bombay)	1	1	...
Ambi (Bombay)	2	2	...	Burmese	28	28	...
Andi (Madras)	1	...	1	Chain	3	3	...
Andhara (Bombay)	1	1	...	Chakkan (Madras)	1	1	...
Aradhi (Bombay)	1	1	...	Chamar	347	277	70
Arain (Panjab)	1	1	...	Charan	2	2	...
Arakala (Madras)	3	3	...	Chaudhuri	3	3	...
Arasu (Madras)	2	2	...	Chero	1	1	...
Arora	3	3	...	Cheruma	3	3	...
Atith	2	2	...	Chetti (Madras)	4	4	...
Baharia (Bombay)	1	1	...	Chin	3	3	...
Budalkot (Bombay)	1	1	...	Daksani (Bombay)	6	4	2
Badi	1	1	...	Dammula (Madras)	9	9	...
Bagata (Madras)	1	1	...	Dandasi (Madras)	3	3	...
Bagdi	43	29	14	Darzi	4	4	...
Baghban (Panjab)	2	1	1	Deohang	3	3	...
Bahelia	1	1	...	Deoli (Panjab)	1	1	...
Bairagi	28	21	7	Dhadi (Bombay)	2	2	...
Baishnab	30	25	5	Dhakkado (Madras)	1	1	...
Baiti (Chunari)	2	2	...	Dhalar (Bombay)	4	4	...
Bakad (Bombay)	2	2	...	Dhamik	14	14	...
Balai	4	4	...	Dharala (Bombay)	1	1	...
Balbasawer (Bombay)	4	1	3	Dharkar	2	2	...
Balija	23	23	...	Dhebra (Bombay)	8	3	5
Baloch (Sindh)	9	9	...	Dhed (Bombay)	4	4	...
Bangar (Bombay)	2	2	...	Dher (Madras)	2	2	...
Baniya	225	182	43	Dhimal	23	23	...
Banjara	99	90	9	Dhobi	60	53	7
Banjgar (Bombay)	3	2	1	Divar (Bombay)	5	5	...
Bant (Madras)	7	3	4	Dogara	1	1	...
Banwar	9	9	...	Dom	28	28	...
Barel (Bombay)	3	3	...	Dosadh	29	23	6
Barhi	62	49	13	Gadaria	66	52	14
Bari	10	10	...	Gadhavi (Bombay)	1	1	...
Barni	3	2	1	Gadaba (Madras)	2	2	...
Basantiya (Madras)	4	4	...	Ganli (Madras)	4	4	...
Battad (Bombay)	3	2	1	Garasia (Bombay)	4	3	1
Bauri	32	29	3	Gano	3	3	...
Bedaru (Madras)	3	3	...	Garudi (Bombay)	1	1	...
Beldar	13	10	3	Gatti	1	1	...
Bengali	19	14	5	Gantam (Brahman Bombay)	3	3	...
Berad (Bedar)	6	6	...	Gavara (Madras)	2	2	...
Besta (Madras)	9	9	...	Gawar (Bombay)	2	2	...
Beyar	1	1	...	Ghaghari (Brahman Bombay)	4	3	1
Bhand	1	1	...	Ghasi	4	4	...
Bhandari	2	2	...	Ghatwal	5	5	...
Bhar	19	18	1	Goala	13	13	...
Bharadi (Bombay)	10	10	...	Godiya (Madras)	9	9	...
Bhar Bhunja	6	6	...	Gokha (Madras)	3	3	...
Bhat	17	17	...	Gola	1	1	...
Bhatia (Panjab)	7	7	...	Gond	144	129	15

1901.

Part I.—Showing Distribution through India—continued.

Caste and Province.	Persons.	Males.	Females.
1	2	3	4
HINDU—(*continued*).			
Goarhi	2	1	1
Gosain	69	55	14
Gudala (Madras)	3	2	1
Gudigara (Madras)	1	1	...
Gujarati	1	1	...
Gujjar (Bombay)	32	30	2
Guni (Madras)	1	1	...
Hajjam	128	97	31
Halaba	1	1	...
Halalkhor	1	1	...
Hal Paik (Madras)	1	1	...
Halwai	27	17	10
Hari	6	3	3
Harale (Bombay)	1	1	...
Hugar (Bombay)	1	1	...
Hindu (unspecified)	43	38	5
Idaiyan (Madras)	1	1	...
Jadu	10	10	...
Jagri (Bombay)	3	3	...
Jalari (Madras)	1	1	...
Jangam (Madras)	18	15	3
Jani (Bombay)	2	2	...
Jat	100	79	21
Jatte (Madras)	5	4	1
Javal (Bombay)	2	2	...
Jhinwar	1	...	1
Jhora	1	1	...
Jir (Bombay)	3	3	...
Jotaba	19	19	...
Jogi	6	6	...
Joshi	1	1	...
Jugi	12	12	...
Kabirpanthi	2	2	...
Kabaligar (Bombay)	1	...	1
Kachari	7	7	...
Kachhia	125	101	24
Kadar	1	...	1
Kadam (Bombay)	1	1	...
Kahar	186	157	29
Kaibartta	41	33	8
Kalinga (Madras)	2	1	1
Kallan (Madras)	19	10	9
Kallar	4	3	1
Kalwar	69	60	9
Kambat	5	2	3
Kamsala (Madras)	1	1	...
Kamma	2	2	...
Kavakhan (Madras)	1	1	...
Kandh	5	5	...
Kandoi	1	1	...
Kandra	4	4	...
Kandu	11	10	1
Kanjar	7	4	3
Kansari	2	1	1
Kapali	4	4	...
Kapu (Madras)	4	4	...
Kapri (Panjab)	4	4	...
Karanga	5	5	...
Karen	10	10	...
Karekar (Bombay)	1	1	...
Karir (Bombay)	3	3	...
Kathi	2	1	1
Katike (Madras)	1	1	...
Katil (Bombay)	1	1	...
Kawali	4	4	...
Kayestha	162	117	45
Kewat	17	13	4
Khandait	11	11	...
Khokar	1	1	...
Kharia	5	5	...
Kharwar	2	2	...
Khasi	8	8	...
Khatia	7	7	...
Khatwe	2	2	...

Caste and Province.	Persons.	Males.	Females.
1	2	3	4
HINDU—(*continued*).			
Khatri	80	61	19
Khatik	19	19	...
Kher (Burma)	1	1	...
Kisan	17	16	1
Koiri	145	127	13
Kol	23	12	11
Koli	28	28	...
Kolla	6	6	...
Kolta	4	4	...
Komti	5	5	...
Kora	4	4	...
Kori	21	20	1
Korvi	2	2	...
Korwa	13	12	1
Koshti	9	5	4
Kota	4	4	...
Koteri (Madras)	3	3	...
Koyi (Madras)	3	3	...
Kummara (Madras)	1	...	1
Kumhar	49	34	15
Karuba (Madras)	1	1	...
Kuraniar	3	3	...
Kurmi	765	597	168
Lad (Bombay)	1	1	...
Laheri	2	2	...
Lalbegi	2	2	...
Londhari (Bombay)	1	...	1
Limbu	1	1	...
Lingait	36	35	1
Lodha	113	104	9
Lohar	81	70	11
Lunia	2	...	2
Lariya (Madras)	1	...	1
Lushai	1	1	...
Machhi	3	3	...
Madar (Bombay)	1	1	...
Madiga (Madras)	1	1	...
Madrasi	5	5	...
Magh	3	3	...
Mahadev (Bombay)	8	8	...
Mahar	33	23	10
Mahatam	1	1	...
Mahuri	1	1	...
Mal	2	2	...
Mala (Madras)	9	8	1
Malava (Madras)	2	2	...
Malay	2	2	...
Malayali (Madras)	5	5	...
Malayan (Madras)	...	...	...
Mali	96	79	17
Mallah	33	27	6
Malar	5	5	...
Malo	1	1	...
Malwani (Bombay)	1	1	...
Mang	7	6	
Manihar	3	...	3
Manjhi	2	2	...
Maratha	64	58	6
Marawa	7	5	2
Maravan (Madras)	1	1	...
Maru (Bombay)	3	2	1
Mattia (Madras)	9	9	...
Mehra	3	3	...
Meher (Bombay)	5	4	1
Mehtar	109	99	10
Mena (Bombay)	8	8	...
Meria (Madras)	2	2	...
Mirasi	2	2	...
Mogar (Madras)	2	2	...
Moghia	5	5	...
Meo	1	1	...
More (Bombay)	2	2	...
Mowatik (Bombay)	1	1	...
Mro	1	1	...

1901.

Part I.—Showing Distribution through India—continued.

Caste and Province.	Persons.	Males.	Females.
1	2	3	4
HINDU—(*continued*).			
Mudliar (Bombay)	6	5	1
Munda	12	12	...
Murao	18	17	1
Muriga (Madras)	2	2	...
Murmi	1	1	...
Muvari (Madras)	2	2	...
Musabar	2	2	...
Mutrasa	3	3	...
Naik	26	25	1
Naga	4	2	2
Nagar	2	2	...
Nagarralu (Madras)	1	1	...
Nai	5	5	...
Naikin	5	5	...
Nokkan (Madras)	6	6	...
Naliya	2	2	...
Namasudra	32	6	26
Napit	6	5	1
Nat	19	19	...
Nayar (Bombay)	8	8	...
Nayinda	15	10	5
Newor	3	3	...
Nimavat	2	2	...
Nuniya	19	15	4
Od	2	2	...
Oraon	13	13	...
Oriya	9	9	...
Pahari	17	16	1
Padiyar (Bombay)	4	2	2
Pale (Madras)	5	5	...
Palla	21	14	7
Palwar	2	2	...
Pan	3	3	...
Panchala (Madras)	1	1	...
Panchamsali (Bombay)	5	3	2
Pandaram	1	1	...
Paravan (Madras)	12	12	...
Pardhi	1	...	1
Pariah	11	...	11
Parimal (Bombay)	1	1	...
Parmar (Rajput, Bombay)	1	1	...
Pasi	195	169	26
Patni	2	2	...
Patwa	4	4	...
Pawaria	12	9	3
Palar (Bombay)	1	1	...
Pod	1	1	...
Raj (Panjab)	4	4	...
Raj Bansi	38	32	6
Rajput	387	356	31
Rajwar	3	2	1
Ramamja	2	2	...
Ramayat	1	1	...
Rami (Bombay)	1	1	...
Ramoshi (Bombay)	31	29	2
Rangrez	1	...	1
Ranniar	3	3	...
Rathi (Panjab)	4	2	2
Rathod (Rajput)	12	12	...
Rautia (Bombay)	1	1	...
Rawat	9	9	...
Reddi	42	36	6
Rora (Bombay)	1	1	...
Sadgop	12	6	6
Saharia	1	1	...
Sali	2	2	...
Samar (Bombay)	5	5	...
Sankhari	2	2	...
Sannyasi	1	1	...
Santal	46	34	12
Sauria	2	2	...
Sawara	7	3	4
Sedhma (Bombay)	2	2	...
Senian (Burma)	1	1	...
Shewak (Bombay)	2	2	...
Shiyar (Bombay)	1	1	...
Shikari	1	1	...
Sikh	15	15	...
Shikligar	5	5	...
Sindhi (Bombay)	19	18	1
Sinduria	1	1	...
Sonar	95	84	11
Sudra	227	186	41
Sukli	2	2	...
Sunri	2	2	...
Sutradhar	6	6	...
Taga (N.-W. P.)	1	1	...
Tagata (Madras)	1	1	...
Takari	1	1	...
Talaing (Burma)	11	10	1
Tambuli	11	9	2
Tanti	11	8	3
Tathera	2	1	1
Tattan (Madras)	13	13	...
Telagn (Madras)	1	1	...
Telari (Bombay)	6	6	...
Teli	81	63	18
Thakur (Bombay)	826	736	90
Tharu	1	1	...
Thoria	3	3	...
Tiyan (Madras)	1	1	...
Tiyar	7	7	...
Tottioya (Madras)	4	4	...
Tragala (Bombay)	7	7	...
Udasin	6	3	3
Vaisya	19	19	...
Vellala	54	40	14
Vir (Bombay)	1	1	...
Waduga	5	5	...
Wagri	2	2	...
Warli	5	4	1
Yanadi	1	1	...
* Unidentified	164	124	40
TOTAL	9,264	7,847	1,417
MAHOMEDAN.			
Afghan	28	24	4
Afridi Pathan	1	1	...
Amat	1	1	...
Arab	1	1	...
Arain	7	6	1
Awan	65	52	13
Babaria (Bombay)	3	3	...
Babhan	1	1	...
Baghban (Panjab)	3	2	1
Bais	2	2	...
Balija	1	1	...
Baloch (Sindh)	137	131	6
Baniya	2	2	...
Banjara (Bombay)	2	1	1
Barhi	5	5	...
Bari	1	1	...
Banni	1	1	...
Barwala	1	1	...
Basor (C. P.)	1	1	...
Beg (Panjab)	2	1	1
Bengali	1	1	...
Bhand	1	1	...
Bhangi (N.-W. P.)	19	14	5
Bharati	4	3	1
Bhatiara (Panjab)	1	...	1
Bhisti (N.-W. P.)	4	2	2
Bhoti	20	14	6
Bhinya	1	1	...

* For details see page 319.

1901.

Part I.—Showing Distribution through India—continued.

Caste and Province.	Persons.	Males.	Females.
1	2	3	4
MAHOMEDAN—(*continued*).			
Bora (Bombay)	2	2	...
Bot (Panjab)	1	1	...
Burmese	"	...	...
Chamar	2	2	...
Chandal	2	2	...
Changar (Panjab)	2	2	...
Chasa	1	1	...
Cherwabardar	1	1	...
Chiu	2	2	...
Chauhan (Rajput)	2	2	...
Darzi	4	4	...
Dhed	7	5	2
Dhobi	3	3	...
Dhunia	4	4	...
Dogar (Panjab)	2	2	...
Dom	1	1	...
Fakir	37	37	...
Gadaria (Panjab)	3	2	1
Ghasi	1	1	...
Ghilzai	3	3	...
Giskore (Panjab)	1	1	...
Gondar	2	2	...
Gaddi (Panjab)	2	2	...
Gujar (Panjab)	22	18	4
Hajjam	13	13	...
Halwai	1	1	...
Hijra (Panjab)	2	2	...
Hussaini (Panjab)	2	2	...
Jakhar (Panjab)	5	3	2
Jat	46	39	7
Jolaha	51	45	6
Kabuli	1	1	...
Kachhia	3	3	...
Kahar	1	1	...
Kalwar	2	2	...
Kamar	1	1	...
Kamma (Panjab)	1	1	...
Karni	3	3	...
Kasai	5	5	...
Kashmiri (Panjab)	17	11	6
Kathi (Bombay)	2	2	...
Kayasth	1	1	...
Kewat	2	1	1
Khan	2	2	...
Khanzada	2	2	...
Khasi (Assam)	1	1	...
Khatri	1	...	1
Khoja	3	3	...
Khokar (Panjab)	8	7	1
Kora	2	2	...
Kori (Panjab)	1	1	...
Kumhar	3	2	1
Kunjra	1	1	...
Kurmi	3	3	...
Laghari (Panjab)	2	2	...
Lalbegi	7	5	2
Langah (Panjab)	1	1	...
Lohar	13	7	6
Machhi	11	9	2
Malahari	3	3	...
Malik	4	4	...
Mallah	7	7	...
Manihar (N.-W. P.)	2	2	...
Manjhi	6	1	5
Maravan (Madras)	1	1	...
Mehtar	18	13	5
Mena	1	1	...
Meo (Panjab)	1	1	...
Mir	2	2	...
Mirasi (Panjab)	12	11	1
Miyan	22	22	...
Moghal	71	65	6
Mohmand	2	2	...
Multani	14	8	6
Musalman (unspecified)	16	16	...
Napit	5	3	2
Parhaiya	3	3	...
Pasi	1	1	...
Pathan	687	627	60
Pawaria	1	1	...
Quraishi	20	20	...
Rajput	53	48	5
Raju	1	1	...
Rajwar	2	2	...
Rangrez	12	12	...
Rathi (Panjab)	2	2	...
Rehgar	3	2	1
Saiad	224	198	26
Sali	2	2	...
Samo	2	2	...
Shah	1	1	...
Shekh	2,209	1,895	314
Shiah	2	2	...
Shikligar	1	1	...
Sindhi (Panjab)	4	2	2
Sudra	2	2	...
Sukli	4	4	...
Sumra (Panjab)	1	1	...
Suni	17	17	...
Tahim (Panjab)	1	1	...
Tarkhan (Panjab)	2	2	...
Teli	26	24	2
Tiyar	4	4	...
Turi	3	3	...
Warli (Bombay)	1	1	...
Yusafzai	2	2	...
* Unidentified	77	68	9
TOTAL	4,207	3,678	529
BUDDHIST.			
Arakanese	37	37	...
Assamese	1	1	...
Buddhist	23	23	...
Burmese	1,509	1,500	9
Chin	11	11	...
Chinese	21	20	1
Dhed	1	1	...
Karen	41	41	...
Khir	2	2	...
Megh	3	3	...
Malay	9	9	...
Mang	1	1	...
Marawa	1	1	...
Meo	4	4	...
Naga	2	2	...
Pahari	3	3	...
Pandaram	2	2	...
Shan	95	93	...
Talaing	62	62	...
Vadda (Burma)	22	22	...
Yaw Kachin	10	10	...
TOTAL	1,860	1,848	12
ANIMISTS.			
Kharwar	2	2	...
Malay	2	2	...
Santal	2	2	...
TOTAL	6	6	...

* For details see page 319.

1901.

Part I.—Showing Distribution through India—concluded.

Caste and Province.	Persons.	Males.	Females.
1	2	3	4
JAIN.			
Ahir	7	6	1
Arain	1	1	...
Bora	2	2	...
Brahman	3	3	...
Chhatri	2	1	1
Dhobi	2	2	...
Dusadh	2	2	...
Hajam	1	1	...
Kahar	6	3	3
Kayastha	2	2	...
Kewat	1	...	1
Koeri	3	3	...
Koli	1	...	1
Kondh	4	2	2
Koshti	1	...	1
Kurmi	7	6	1
Lodha	2	2	...
Mahar	2	1	1
Mali	1	1	...
Marawa	1	1	...
Nagbansi	1	1	...
Pahari	1	1	...
Pasi	2	2	...
Rajput	1	1	...
Sonar	1	1	...
Thakur	2	2	...
Thoria	2	2	...
TOTAL	61	49	12
SIKH.			
Agarwala	2	2	...
Ahalwalia	4	4	...
Barhi	1	1	...
Bhat	1	1	...
Bhil	2	2	...
Brahman	4	4	...
Burmese	2	1	1
Chamar	2	2	...
Chhatri	14	13	1
Dhalar	1	1	...
Dharkar	3	3	...
Hajam	21	20	1
Jat	194	172	22
Kachhi	2	1	1
Kahar	15	10	5
Kalar	1	1	...
Khatri	7	6	1
Kondh	4	4	...
Kumhar	6	4	2
Kurmi	2	2	...
Magh	1	1	...
Mahar	18	11	7
Mali	1	1	...
Manihar	3	2	1
Maratha	1	...	1
Nag	1	1	...
Nagbansi	1	1	...
Neyigi	1	1	...
Pahari	1	1	...
Pasi	1	1	...
Rajput	2	2	...
Rora	1	1	...
Shikligar	2	2	...
Sikari	1	1	...
Sikh	30	30	...
Sindhi	10	10	...
Sonar	1	1	...
Thakur	1	...	1
Tharu	5	5	...
TOTAL	370	326	44
PARSI.			
Parsi (Atas Prasti)	2	2	...
TOTAL	2	2	...
CHRISTIAN.			
Armenian	1	1	...
Canadian	1	...	1
Chinese	1	1	...
English	211	179	32
Eurasian	70	42	28
East Indian	1	1	...
German	1	1	...
Irish	40	28	12
Italian	3	2	1
Madrasi	5	4	1
Native Christian	128	88	40
Portuguese	6	4	2
Roman Catholic	1	...	1
Scotch	17	15	2
TOTAL	486	366	120

1901.

LIST OF UNIDENTIFIED CASTES.

Castes. (Hindu.)	Number. Total.	Males.	Females	Remarks. Language and Occupations.
Central India.				
Badgujar	1	1	...	Hindi Prisoner.
Total	1	1	...	
Panjab.				
Khairar Chowli	1	1	...	Hindi P. Constable,
Pardhan	1	1	...	Do. Prisoner.
Total	2	2	...	
N.-W. P. & Oudh.				
Rarika	2	1	1	
Total	2	1	1	
Bombay.				
Agaldarun	1	1	...	Hindi Prisoner.
Aomu	1	1	...	Uriya do.
Dakaut	2	2	...	Hindi do.
Naski	1	1	...	Karnatic do.
Rajrashi	1	1	...	Marathi do.
Jogdar	1	1	...	Hindi do.
Wachhawar	2	2	...	Marathi do.
Wander	4	4	...	Karnatic do.
Total	13	13	...	
Haidrabad.				
Aligond	2	2	...	Marathi Prisoner.
Kekkar	18	16	2	Do. do.
Kurusmend	1	1	...	Do. do.
Total	21	19	2	
Madras.				
Aketri	1	1	...	Madrasi Prisoner.
Amergar	1	1	...	Do. do.
Jamrore	2	1	1	Do. do.
Malore	3	3	...	Telagu do.
Mahavala	8	8	...	Marathi do.
Madheshi	1	1	...	Do. do.
Parakhia	1	1	...	Madrasi do.
Sengunther	60	28	32	Do. Govt. Clerk.
Tartalan	2	2	...	Do. Prisoner.
Vanmatuk	2	2	...	Talaing Sepoy.
Vaishi	8	6	2	Tamil Prisoner.
Vanir	12	12	...	Do. do.
Warajai	6	4	2	Madrasi do.
Total	107	70	37	
*Dhangar	18	18	...	
Total	18	18	...	
GRAND TOTAL	164	124	40	

Castes. (Mahomedan.)	Number. Total.	Males.	Females	Remarks. Language and Occupations.
Bengal.				
Allahzadi	3	3	...	Bengali Chaukidar.
Total	3	3	...	
Panjab.				
Akhwan Khul	1	1	...	Afghani Prisoner.
Amirful	3	2	1	Pashto do.
Andwal	2	1	1	Urdu do.
Bikhara	2	1	1	Punjabi Police Constable.
Bhan	2	2	...	Afghani Prisoner.
Dhari	4	4	...	Punjabi do.
Fazal	1	1	...	Urdu do.
Ghasgarha	3	2	1	Pashto do.
Gati	1	1	...	Urdu do.
Ghamar	1	1	...	Punjabi do.
Guria	1	1	...	Do. do.
Jasjoti	2	2	...	Urdu do.
Jor	1	1	...	Punjabi do.
Kurkhal	1	...	1	Do. do.
Kokhain	1	1	...	Afghani do.
Malzada	1	1	...	Hindi do.
Reman	1	1	...	Punjabi do.
Zamindar	3	3	...	Do. do.
Total	31	26	5	
N.-W. P. & Oudh.				
Ahanyan	1	1	...	Hindi Prisoner.
Alahzi	2	2	...	Do. do.
Baffunda	3	3	...	Do. Naik Police.
Newati	1	1	...	Do. Prisoner.
Ramudgul	1	1	...	Do. do.
Total	8	8	...	
Port Blair.				
Chamma	4	2	2	Urdu dependent of Prisoners.
Masali	4	4	...	Hindi cattle grazing.
Total	8	6	2	
Sindh.				
Abro	4	4	...	Sindhi Prisoner.
Karla	6	6	...	Do. do.
Khaskila	3	3	...	Do. do.
Lakhu	2	2	...	Do. do.
Sadbahu	1	1	...	Do. do.
Seyal	6	4	2	Do. do.
Wagia	2	2	...	Do. do.
Total	24	22	2	
Burma.				
Zerbadi	1	1	...	Burmese Prisoner.
Total	1	1	...	
Bombay and Sindh.				
Mayaura	1	1	...	Hindi Prisoner.
Mufti	1	1	...	Urdu do.
Total	2	2	...	
GRAND TOTAL	77	68	9	

*Dhangar means various things in various places; an examination of the slips shows 10 born in Bombay, Language Marathi, 6 born in Madras, Language Telugu, 2 born in Port Blair, Language Urdu. There were also 2 Dhangars born in Santal Pargana, these last have been classified as Kora.

1901.

TABLE XV.

Occupation or Means of Livelihood.

Part I.—General Statement.

Occupation.	Total supported by it.	Actual Workers.				Dependents.
		Total.		Partially Agriculturist.		
		Males.	Females.	Males.	Females.	
1	2	3	4	5	6	7
CLASS A.—GOVERNMENT.	1,442	1,148	...	4	...	294
ORDER I.—ADMINISTRATION.	**557**	**370**	...	**3**	...	**187**
1. Sub-order, Civil Service of the State	538	362	...	3	...	176
1. The Heads of Local Governments, Administrations and Agencies and their families	1	1	...	...	...	...
2. Officers of Government and their families	31	17	...	...	...	14
3. Clerks, Inspectors, etc., and their families	154	47	...	1	...	107
4. Constables, messengers, warders, and unspecified	352	297	...	2	...	55
3. Village Service.	19	8	...	...	...	11
10. Watchmen and other village servants	19	8	...	...	...	11
II.—DEFENCE.	**885**	**778**	...	**1**	...	**107**
4. Army.	876	772	...	1	...	104
11. Military Officers	71	52	...	...	...	19
12. Non-Commissioned Officers and Privates	187	171	...	...	...	16
13. Followers	1	1	...	1	...	...
15. Military Police, etc.	590	540	...	...	...	50
16. Military service unspecified	27	8	...	...	...	19
5. Navy and Marine.	9	6	...	...	...	3
17. Naval Officers	4	4	...	...	...	...
18. Naval Engineers, Warrant Officers, and seamen	5	2	...	...	...	3
CLASS B.—PASTURE AND AGRICULTURE.	1,517	405	93	...	...	1,019
IV.—PROVISION AND CARE OF ANIMALS.	**23**	**19**	...	...	...	**4**
8. Stock Breeding and Dealing.	22	18	...	...	...	4
25. Horse, mule, and ass breeders, dealers, and attendants	1	1	...	...	...	...
26. Cattle breeders, and dealers, and Commissariat farm establishment	11	11	...	...	...	...
27. Herdsmen	10	6	...	...	...	4
9. Training and Care of Animals.	1	1	...	...	...	...
33. Veterinary Surgeons, farriers, etc.	1	1	...	...	...	...
V.—AGRICULTURE.	**1,494**	**386**	**93**	...	...	**1,015**
10. Land-Holders and Tenants.	1,484	377	93	...	...	1,014
36. Rent receivers	1	...	1	...	...	...
37. Rent payers	1,483	377	92	...	...	1,014

1901.

Part I.—General Statement—continued.

Occupation.	Total supported by it.	Actual Workers. Total. Males.	Total. Females.	Partially Agriculturist. Males.	Partially Agriculturist. Females.	Dependents.
1	2	3	4	5	6	7
V.—AGRICULTURE—*continued.*						
12. Growers of Special Products.	3	3	...	...	...	...
47. Tea plantations: owners, managers, and superior staff	3	3	...	...	...	...
13. Agricultural Training and Supervision and Forests.	7	6	...	...	...	1
58. Forest Officers	1	1	...	...	...	...
59. Forest rangers, guards, peons	6	5	...	...	...	1
VI.—PERSONAL, HOUSEHOLD, AND SANITARY SERVICES.	**206**	**79**	**11**	**9**	**1**	**116**
14. Personal and Domestic Services.	193	76	11	9	1	106
60. Barbers	22	8	...	3	...	14
61. Cooks	41	22	...	4	...	19
64. Indoor servants	55	21	6	...	...	28
65. Washermen	21	15	...	1	...	6
66. Water carriers	3	3	...	...	...	...
68. Miscellaneous and unspecified	51	7	5	1	1	39
16. Sanitation.	13	3	...	...	...	10
74. Sweepers and scavengers	13	3	...	...	...	10
CLASS D.—PREPARATION AND SUPPLY OF MATERIAL SUBSTANCE.	277	119	14	7	1	144
VII.—FOOD, DRINK, AND STIMULANTS.	**119**	**45**	**13**	**3**	**1**	**61**
17. Provision of Animal Food.	68	27	8	2	...	33
76. Butchers and slaughterers	2	2	...	...	...	...
78. Cow and buffalo keepers, and milk and butter sellers	40	18	4	1	...	18
79. Fishermen and fish curers	6	2	...	1	...	4
80. Fish dealers	14	3	1	...	...	10
81. Fowl and egg dealers	6	2	3	...	...	1
18. Provision of Vegetable Food.	23	14	...	1	...	9
95. Bakers	11	5	...	1	...	6
103. Sweetmeat-makers	10	8	...	...	...	2
104. Sweetmeat-sellers	2	1	...	...	...	1
19. Provision of Drink, Condiments, and Stimulants.	28	4	5	...	1	19
124. Grocers and general condiment dealers	24	1	5	...	1	18
131. Toddy drawers	4	3	...	...	...	1
VIII.—LIGHT, FIRING, AND FORAGE.	**11**	**7**	...	**1**	...	**4**
21. Fuel and Forage.	11	7	...	1	...	4

1901.

Part I.—General Statement—continued.

Occupation.	Total supported by it.	Actual Workers. Total. Males.	Females.	Partially Agriculturist. Males.	Females.	Dependents.
1	2	3	4	5	6	7
VIII.—LIGHT, FIRING, AND FORAGE —*continued.*						
143. Coal dealers, brokers, Company managers, etc.	6	6	...	...	...	...
150. Firewood, charcoal, and cowdung sellers	5	1	...	1	...	4
IX.—BUILDINGS.	3	1	...	...	...	2
23. Artificers in Buildings.	3	1	...	...	...	2
162. Building contractors	3	1	...	...	...	2
XI.—SUPPLEMENTARY REQUIREMENTS.	21	9	...	1	...	12
28. Books and Prints.	9	5	...	...	...	4
184. Printing presses: workmen and other subordinates	8	4	...	...	...	4
186. Book-binders	1	1	...	...	...	...
36. Tools and Machinery.	12	4	...	1	...	8
225. Machinery and Engineering workshops: owners, managers, and Superior staff	4	1	...	...	...	3
232. Mechanics other than railway mechanics	8	3	...	1	...	5
XII.—TEXTILE FABRICS AND DRESS.	27	21	1	...	...	5
42. Dress.	27	21	1	...	...	5
306. Tailors, milliners, dress makers, and darners	27	21	1	...	...	5
XIII.—METALS AND PRECIOUS STONES.	49	15	...	1	...	34
43. Gold, Silver, and Precious Stones.	27	5	...	...	...	22
317. Workers in gold, silver, and precious stones	27	5	...	...	...	22
45. Tin, Zinc, Quicksilver, and Lead.	6	2	...	...	...	4
324. Workers in tin, zinc, quicksilver, and lead	6	2	...	...	...	4
46. Iron and Steel.	16	8	...	1	...	8
328. Workers in iron and hard ware	16	8	...	1	...	8
XIV.—GLASS, EARTHEN, AND STONE WARE.	6	1	...	...	...	5
48. Earthen and Stone Ware.	6	1	...	...	...	5
336. Potters and pot and pipe-bowl makers	6	1	...	...	...	5

1901.

Part I.—General Statement—continued.

Occupation.	Total supported by it.	Actual Workers. Total. Males.	Actual Workers. Total. Females.	Actual Workers. Partially Agriculturist. Males.	Actual Workers. Partially Agriculturist. Females.	Dependents.
1	2	3	4	5	6	7
XV.—WOOD, CANE, AND LEAVES, ETC.	**25**	**14**	...	**1**	...	**11**
49. Wood and Bamboos.	25	14	...	1	...	11
344. Carpenters	9	3	...	1	...	6
346. Wood-cutters and sawyers	16	11	...	...	...	5
XVII.—LEATHER, ETC.	**16**	**6**	...	...	...	**10**
53. Leather, Horn, and Bones.	16	6	...	...	...	10
387. Shoe, boot, and sandal-makers	16	6	...	...	...	10
CLASS E.—COMMERCE, TRANSPORT STORAGE.	303	178	5	55	1	120
XVIII.—COMMERCE.	**178**	**80**	**5**	**9**	**1**	**93**
54. Money and Securities.	7	2	...	...	...	5
595. Bank-clerks, cashiers, bill-collectors, accountants, etc.	7	2	...	...	...	5
55. General Merchandise.	10	6	...	...	...	4
396. General Merchants	10	6	...	...	...	4
56. Dealing Unspecified.	160	71	5	9	1	84
398. Shop-keepers, otherwise unspecified	155	70	5	9	1	80
400. Shop-keepers' and money-lenders' servants	5	1	...	...	...	4
57. Middlemen, Brokers and Agents.	1	1	...	...	...	...
407. Contractors, otherwise unspecified	1	1	...	...	...	...
XIX.—TRANSPORT AND STORAGE.	**125**	**98**	...	**46**	...	**27**
58. Railway.*	25	10	...	3	...	15
413. Guards, drivers, firemen, etc.	25	10	...	3	...	15
59. Road.	6	3	...	1	...	3
417. Cart owners and drivers, carting agents, etc.	6	3	...	1	...	3
60. Water.	81	76	...	40	...	5
423. Ship owners and agents	1	1	...	...	...	...
424. Shipping clerks, supercargoes, and stevedores	51	46	...	40	...	5
428. Ships' Officers, engineers, mariners, and firemen	27	27	...	...	...	...
432. Harbour works, harbour service, and divers	2	2	...	...	...	...

* Excluding Police on Railway.

1901.

Part I.—General Statement—continued.

Occupation.	Total supported by it.	Actual Workers.				Dependents.
		Total.		Partially Agriculturist.		
		Males.	Females.	Males.	Females.	
1	2	3	4	5	6	7
XIX.—TRANSPORT AND STORAGE—*continued.*						
61. Messages.	12	8	...	2	...	4
433. Post office: officers and superior staff	1	1	...	...	...	...
434. Post office: clerks, messengers, runners, and other subordinates	11	7	...	2	...	4
62. Storage and Weighing.	1	1	...	...	...	...
440. Warehouse: workmen and other subordinates	1	1	...	...	...	...
CLASS F.—PROFESSIONS.	209	91	...	4	...	118
XX.—LEARNED AND ARTISTIC PROFESSIONS.	**209**	**91**	...	**4**	...	**118**
63. Religion.	11	2	...	...	...	9
444. Priests, ministers, etc.	1	1	...	...	...	...
445. Catechists, readers, church and mission service, etc.	10	1	...	...	...	9
64. Education.	29	10	...	1	...	19
452. Principals, professors, and teachers	29	10	...	1	...	19
65. Literature.	34	17	...	1	...	17
456. Writers (unspecified) and private clerks	34	17	...	1	...	17
66. Law.	12	4	...	1	...	8
464. Petition-writers, touts, etc.	12	4	...	1	...	8
67. Medicine.	56	27	...	...	...	29
466. Administrative and inspecting staff (when not returned under general head)	30	14	...	...	...	16
467. Practitioners with diploma, license, or certificate	21	10	...	...	...	11
468. Practitioners without diploma	1	1	...	...	...	...
473. Compounders, matrons, nurses and hospital asylum and dispensary service	4	2	...	...	...	2
68. Engineering and Survey.	59	25	...	1	...	34
475. Civil engineers and architects	26	11	...	1	...	15
477. Draughtsmen and operators in survey offices, overseers, etc.	25	11	...	...	...	14
478. Clerks, etc., in offices of the above	8	3	...	...	...	5

Part I.—General Statement—concluded.

Occupation.	Total supported by it.	Actual Workers.				Dependents.
		Total.		Partially Agriculturist.		
		Males.	Females.	Males.	Females.	
1	2	3	4	5	6	7
XX.—LEARNED AND ARTISTIC PROFESSIONS—*continued.*						
71. Music, Acting, Dancing, etc.	8	6	...	...	...	2
488. Bandmasters and players (not military)	8	6	...	...	...	2
CLASS G.—UNSKILLED LABOUR NOT AGRICULTURAL.	129	82	...	8	...	47
XXII.—EARTH WORK AND GENERAL LABOUR.	**31**	**18**	...	**1**	...	**13**
75. General Labour.	31	18	...	1	...	13
504. General labour	31	18	...	1	...	13
XXIII.—INDEFINITE AND DISREPUTABLE OCCUPATIONS.	**98**	**64**	...	**7**	...	**34**
76. Indefinite.	98	64	...	7	...	34
505. Uncertain or not returned	18	10	...	...	...	8
505*b*. Service unspecified (*chakari*)	80	54	...	7	...	26
CLASS H.—MEANS OF SUBSISTENCE INDEPENDENT OF OCCUPATION.	12,173	11,187	560	540	1	426
XXIV.—INDEPENDENT.	**12,173**	**11,187**	**560**	**540**	**1**	**426**
78. Property and Alms.	17	8	7	1	...	2
510. House rent, shares and other property not being land	2	1	...	1	...	1
511. Allowances from patrons or relatives	8	1	7	...	...	...
513. Mendicancy (not in connection with a religious order)	7	6	...	...	...	1
79. At the State Expense.	12,156	11,179	553	539	1	424
514. Pension, civil services	3	1	...	...	...	2
516. Pension, unspecified	12	2	2	...	...	8
520. Prisoners, convicted or in reformatories, etc.	12,141	11,176	551	539	1	414

1901.

TABLE XV.

Occupation or Means of Livelihood.

Part II.—Population supported—by Orders.

Province, State, or Agency.	Total.		I.—Administration.		II.—Defence.		IV.—Provision & Care of Animals.		V.—Agriculture.	
	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.
1	2	3	4	5	6	7	10	11	12	13
Andaman Islands (*Port Blair.*)	16,256	2,284	557	187	885	107	23	4	1,494	1,015

	VI.—Personal Household and Sanitary Services.		VII.—Food, Drink, and Stimulants.		VIII.—Light, Firing, and Forage.		IX.—Buildings.		XI.—Supplementary Requirements.	
	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.
	14	15	16	17	18	19	20	21	24	25
Andaman Islands (*Port Blair.*)	206	116	119	61	11	4	3	2	21	12

	XII.—Textile Fabrics and Dress.		XIII.—Metals and Precious Stones.		XIV.—Glass, Earthen, and Stone ware.		XV.—Wood, Cane, and Leaves, etc.		XVII.—Leather.	
	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.
	26	27	28	29	30	31	32	33	36	37
Andaman Islands (*Port Blair.*)	27	5	49	34	6	5	25	11	16	10

	XVIII.—Commerce.		XIX.—Transport and Storage.		XX.—Learned and Artistic Professions.		XXII.—Earthwork & General Labour.		XXIII.—Indefinite and disreputable occupations.		XXIV.—Independent.	
	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.	Total supported.	Dependents.
	38	39	40	41	42	43	46	47	48	49	50	51
Andaman Islands (*Port Blair.*)	178	93	125	27	209	118	31	13	98	34	12,173	426

1901.

TABLE XV.

Occupation or Means of Livelihood.

Part III.—Provincial Distribution of Actual Workers—by Sub-orders.

Occupation or Means of Livelihood.	Andaman Islands. (*Port Blair*).		Occupation or Means of Livelihood.	Andaman Islands. (*Port Blair*).	
	Actual workers.	Partially Agriculturist.		Actual workers.	Partially Agriculturist.
1	54	55	1	54	55
I.—ADMINISTRATION.	1,148	4	XIII.—METALS AND PRECIOUS STONES.	15	1
1. Civil Service of the State	362	3	43. Gold, Silver, and Precious Stones	5	...
3. Village Service	8	...	45. Tin, Zinc, Quicksilver, and Lead	2	...
II.—DEFENCE.	778	1	46. Iron and Steel	8	1
4. Army	772	1	XIV.—GLASS, EARTHEN, AND STONE WARE.	1	...
5. Navy and Marine	6	...	48. Earthen and Stone ware	1	...
IV.—PROVISION AND CARE OF ANIMALS.	19	...	XV.—WOOD, CANE, AND LEAVES, ETC.	14	1
8. Stock breeding and dealing	18	...	49. Wood and Bamboos	14	1
9. Training and Care of Animals	1	...	XVII.—LEATHER.	6	...
V.—AGRICULTURE.	479	...	53. Leather, Horn, and Bones, etc.	6	...
10. Landholders and Tenants	470	...	XVIII.—COMMERCE.	85	10
12. Growth of special Products	3	...	54. Money and Securities	2	...
13. Agricultural Training and Supervision and Forests	6	...	55. General Merchandise	6	...
VI.—PERSONAL, HOUSEHOLD, AND SANITARY SERVICE.	90	10	56. Dealing unspecified	76	10
14. Personal and Domestic Services	87	10	57. Middlemen, Brokers and Agents	1	...
16. Sanitation	3	...	XIX.—TRANSPORT AND STORAGE.	98	46
VII.—FOOD, DRINK, AND STIMULANTS.	58	4	58. Railway	10	3
17. Animal Food	35	2	59. Road	3	1
18. Vegetable Food	14	1	60. Water	76	40
19. Drinks, Condiments, and Stimulants	9	1	61. Messages	8	2
VIII.—LIGHT, FIRING, AND FORAGE.	7	1	62. Storage and Weighing	1	...
21. Fuel and Forage	7	1	XX.—LEARNED AND ARTISTIC PROFESSIONS.	91	4
IX.—BUILDINGS.	1	...	63. Religion	2	...
23. Artificers in Building	1	...	64. Education	10	1
XI.—SUPPLEMENTARY REQUIREMENTS.	9	1	65. Literature	17	1
28. Books and Prints	5	...	66. Law	4	1
36. Tools and Machinery	4	1	67. Medicine	27	...
XII.—TEXTILE FABRICS AND DRESS.	22	...	68. Engineering and Survey	25	1
42. Dress	22	...	71. Music, Acting, and Dancing	6	...
			XXII.—EARTHWORK AND GENERAL LABOUR.	18	1
			75. General labour	18	1
			XXIII.—INDEFINITE AND DISREPUTABLE OCCUPATIONS.	64	7
			76. Indefinite	64	7
			XXIV. INDEPENDENT.	11,747	541
			78. Property and Alms	15	1
			79. At the Public charge	11,732	540

1901.

TABLE XVII.

Christians by Race and Denomination.

Part I.—General Return.

Denomination.	Total Returned.			Distribution by Race.					
				European and Allied Races.		Eurasian.		Native.	
	Persons.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10
Anglican Communion	266	197	69	157	36	22	23	18	10
Baptist	8	4	4	3	3	1	1	...	...
Indefinite beliefs	1	1	...	1	...	...	...	...	...
Methodist	17	16	1	15	...	1	1	...	...
Minor denominations	3	2	1	...	...	...	...	2	1
Presbyterian	9	9	...	8	...	...	...	1	...
Roman Catholic	173	131	42	45	11	19	3	67	28
Denomination not returned	9	6	3	1	...	...	...	5	3
Total	486	366	120	230	50	43	28	93	42

TABLE XVIII.

Christians by Race and Age.

Province, State, or Agency.	Total.			European and Allied Races.								
				British Subjects.								
				All Ages.			0—12.		12—15.		15—30.	
	Persons.	Males.	Females.	Persons.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
2. Andamans and Nicobars. (*Port Blair.*)	351	273	78	270*	223	47	19	13	...	1	157	12

	European and Allied Races.													
	British Subjects.				Others.									
	30—50.		50 and over.		All ages.			0—12.		15—30.		30—50		
	Males.	Females.	Males.	Females.	Persons.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
	14	15	16	17	18	19	20	21	22	25	26	27	28	
2. Andamans and Nicobars. (*Port Blair.*)	41	20	6	1	10	7	3	4	2	...	1	3	...	

	Eurasians.													
	All ages.			0—12.		12—15		15—30		30—50.		50 and over.		
	Persons.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
	31	32	33	34	35	36	37	38	39	40	41	42	43	
2. Andamans and Nicobars. (*Port Blair.*)	71	43	28	7	9	1	1	16	12	15	5	4	1	

* Including one male Armenian.

APPENDIX B.

CENSUS TABLES, 1891.

1891.

TABLE I.

GENERAL STATEMENT.

PROVINCE.	Area in square miles.	Towns.	Villages.	Occupied Houses.			POPULATION.								
							Both Sexes.			Males.			Females.		
				Total.	In towns.	In villages.	Total.	Urban.	Rural.	Total.	Urban.	Rural.	Total.	Urban.	Rural.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
13. Andamans	...	...	59	2,997	...	2,997	15,609	...	15,609	13,375	...	13,375	2,234	...	2,234

TABLE II.

VARIATION IN POPULATION SINCE 1881.

PROVINCE.	Both Sexes.			Males.			Females.		
	1891.	1881.	Difference.	1891.	1881.	Difference.	1891.	1881.	Difference.
1	2	3	4	5	6	7	8	9	10
13. Andamans	15,609	14,628	+981	13,375	12,640	+735	2,234	1,988	+246

TABLE III.

TOWNS AND VILLAGES CLASSIFIED BY POPULATION.

PROVINCE.	Total number of inhabited Towns and Villages.	Total Population.	1—199.		200—499.		500—999.		1,000—1,999.	
			Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.
1	2	3	4	5	6	7	8	9	10	11
13. Andamans . . .	59	15,609	32	3,592	21	5,883	4	3,388	2	2,746

1891.

TABLE VI.

THE POPULATION BY RELIGION.

PROVINCE.	A.—TOTAL POPULATION.			I—ARYAN-INDIAN.								
				B.—TOTAL HINDU.			C.—SIKH.			D.—JAIN.		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
1	2	3	4	14	15	16	17	18	19	20	21	22
13. Andamans . .	15,609	13,375	2,234	9,433	8,002	1,431	395	322	37	3	3	...

	II.—ARYAN-NON-INDIAN.			III.—SEMITIC.						IV.—ANIMISTIC RELIGIONS.			V.—MINOR AND INDEFINITE CREEDS.		
	E.—BUDDHIST.			G.—MUSALMAN.			H.—CHRISTIANS.			K.—FOREST TRIBES, ETC.			L.—MINOR RELIGIONS (*b*) *Theists.*		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
	23	24	25	29	30	31	32	33	34	38	39	40	47	48	49
13. Andamans .	1,290	1,285	5	3,980	3,382	598	483	356	127	24	24	...	1	1	...

TABLE VII.

THE POPULATION BY AGE AND RELIGION.

AGE.	A.—SUMMARY.		B.—HINDU.		C.—SIKH.		D.—JAIN.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9
Under 1 year	91	108	59	59	5	6	...	...
1 „	43	39	28	26	4	2	...	...
2 years . . .	78	71	48	43	...	3	...	...
3 „	82	90	49	60	2	4	...	...
4 „	84	74	51	45	4	1	...	...
TOTAL under 5 years . .	378	377	235	233	15	16	...	...
5—9 „ . . .	234	273	138	178	4	6	...	...
10—14 „ . . .	163	141	105	85	6	1	...	...
15—19 „ . . .	142	100	83	58	6	5	...	...
20—24 „ . . .	914	159	456	77	...	18	...	...
25—29 „ . . .	1,725	211	919	129	75	16	...	...
30—34 „ . . .	2,670	286	1,574	194	64	4	1	...
35—39 „ . . .	2,077	191	1,243	133	63	2	...	...
40—44 „ . . .	2,397	243	1,556	169	44	3	2	...
45—49 „ . . .	822	60	505	40	27	1	...	...
50—54 „ . . .	1,013	100	672	71	16	1	...	...
55—59 „ . . .	202	11	137	7	1	...	...	...
60 and over . . .	638	82	379	57	1	...	...	...
TOTAL .	13,375	2,234	8,002	1,431	322	73	3	...

1891.

TABLE VII.

THE POPULATION BY AGE AND RELIGION—*continued.*

AGE.	E.—BUDDHIST.		G.—MUSALMANS.		H.—CHRISTIAN.		K.—ANIMISTIC.		L.—MINOR RELIGIONS.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
10	11	12	13	14	15	16	17	18	19	20
Under 1 year	1	...	21	29	5	9	...	...	...	...
1 „	...	...	8	9	3	2	...	...	...	...
2 years	1	...	25	22	4	3	...	...	...	...
3 „	...	...	27	21	4	5	...	...	...	...
4 „	1	...	21	23	7	5	...	...	...	...
TOTAL under 5 years	3	...	102	104	23	24	...	...	...	...
5—9 „	2	1	65	70	25	18	...	...	...	...
10—14 „	2	...	45	41	5	14	...	...	...	...
15—19 „	12	...	35	24	5	13	1	...	...	...
20—24 „	160	...	173	49	125	15	...	...	...	...
25—29 „	275	...	398	55	54	11	4	...	...	...
30—34 „	364	2	629	79	33	7	4	...	1	...
35—39 „	206	1	529	46	34	9	2	...	...	...
40—44 „	146	1	623	64	17	6	9	...	...	...
45—49 „	57	...	215	14	17	5	1	...	...	...
50—54 „	37	...	278	27	9	1	1	...	...	...
55—59 „	8	...	53	4	3	...	...	...	...	...
60 and over	13	...	237	21	6	4	2	...	...	...
TOTAL	1,285	5	3,382	598	356	127	24	...	1	...

TABLE VIII.

THE POPULATION BY CIVIL CONDITION, AGE, AND RELIGION.

AGE.	UNMARRIED.		MARRIED.		WIDOWED.	
	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7
A.—SUMMARY.						
0—4 years	378	358	...	19	...	...
5—9 „	228	207	5	66	1	...
10—14 „	145	135	17	5	1	1
15—19 „	106	16	35	79	1	5
20—24 „	314	10	585	122	15	27
25—29 „	426	...	1,184	167	115	44
30—34 „	654	...	1,876	224	140	62
35—39 „	171	...	1,449	149	457	42
40—44 „	142	...	1,729	181	526	62
45—49 „	77	...	583	41	162	19
50—54 „	182	12	713	83	118	5
55—59 „	3	...	150	8	49	3
60 and over	27	...	436	30	175	52
ALL AGES	2,853	738	8,762	1,174	1,760	322

1891.

TABLE VIII.

THE POPULATION BY CIVIL CONDITION, AGE, AND RELIGION—*continued.*

AGE.	UNMARRIED.		MARRIED.		WIDOWED.	
	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7
			B.—HINDUS.			
0—4 years	235	214	...	19	...	...
5—9 „	132	127	5	51	1	...
10—14 „	91	85	13	...	1	...
15—19 „	59	10	23	48	1	...
20—24 „	72	...	369	68	15	9
25—29 „	137	...	714	108	68	21
30—34 „	218	...	1,224	154	32	40
35—39 „	169	...	979	101	95	32
40—44 „	127	...	1,276	130	153	39
45—49 „	46	...	414	30	45	10
50—54 „	39	12	543	59	90	...
55—59 „	3	...	120	4	14	3
60 and over	27	...	303	14	49	43
HINDUS, ALL AGES	1,355	448	5,983	786	664	197
			C.—SIKHS.			
0—4 years	15	16	...	...	...	...
5—9 „	4	6	...	...	...	...
10—14 „	6	...	...	...	...	1
15—19 „	2	...	4	...	...	5
20—24 „	...	...	...	...	...	18
25—29 „	30	...	45	...	...	16
30—34 „	1	...	63	...	...	4
35—39 „	2	...	61	...	...	2
40—44 „	1	...	43	...	...	3
45—49 „	2	...	25	...	...	1
50—54 „	...	...	16	...	...	1
55—59 „	...	...	1	...	...	...
60 and over	...	...	1	...	...	...
SIKHS OF ALL AGES	63	22	259	...	...	51
			D.—JAINS.			
0—4 years	...	...	...	...	...	...
5—9 „	...	...	...	...	...	...
10—14 „	...	...	...	...	...	...
15—19 „	...	...	...	...	...	...
20—24 „	...	...	...	...	...	...
25—29 „	...	...	...	...	...	...
30—34 „	...	...	1	...	...	...
35—39 „	...	...	...	...	...	...
40—44 „	...	...	2	...	...	...
45—49 „	...	...	...	...	...	...
50—54 „	...	...	...	...	...	...
55—59 „	...	...	...	...	...	...
60 and over	...	...	...	...	...	...
JAINS OF ALL AGES	...	...	3	...	...	...

1891.

TABLE VIII.

THE POPULATION BY CIVIL CONDITION, AGE, AND RELIGION—*continued*.

AGE.	UNMARRIED.		MARRIED.		WIDOWED.	
	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7
		E.—BUDDISTS.				
0—4 years	3	...	...	...	...	...
5—9 „	2	...	...	1	...	...
10—14 „	2	...	...	...	...	...
15—19 „	8	...	4	...	...	...
20—24 „	66	...	94	...	...	...
25—29 „	120	...	155	...	...	...
30—34 „	131	...	233	2	...	...
35—39 „	...	...	113	1	93	...
40—44 „	...	...	80	1	66	...
45—49 „	29	...	28	...	...	...
50—54 „	...	...	10	...	27	...
55—59 „	...	...	5	...	3	...
60 and over	...	...	8	...	5	...
TOTAL BUDDHISTS	361	...	730	5	194	...
		G.—MUSALMANS.				
0—4 years	102	104	...	...	...	...
5—9 „	65	58	...	12	...	...
10—14 „	41	36	4	5	...	...
15—19 „	31	5	4	19		...
20—24 „	51	10	122	39	...	...
25—29 „	138	...	260	48	...	7
30—34 „	304	...	325	66	...	13
35—39 „	...	...	267	38	262	8
40—44 „	...	...	325	50	298	14
45—49 „	...	...	102	11	113	3
50—54 „	140	...	138	24	...	2
55—59 „	...	...	23	4	30	...
60 and over	...	...	116	16	121	5
TOTAL MUSALMANS	872	213	1,686	832	824	53
		H.—CHRISTIANS.				
0—4 years	23	24	...	...	...	...
5—9 „	25	16	...	2	...	...
10—14 „	5	14	...	...	...	...
15—19 „	5	1	...	12	...	...
20—24 „	125	...	...	15	...	...
25—29 „	...	...	8	11	46	...
30—34 „	...	...	25	2	8	5
35—39 „	...	...	27	9	7	...
40—44 „	14	...	3	...	...	6
45—49 „	...	...	14	...	3	5
50—54 „	3	...	6	...	...	1
55—59 „	...	...	1	...	2	...
60 and over	...	...	6	...	...	4
TOTAL CHRISTIANS	200	55	90	51	66	21

1891.

TABLE VIII.

THE POPULATION BY CIVIL CONDITON, AGE, AND RELIGION—*concluded.*

AGE.	UNMARRIED.		MARRIED.		WIDOWED.	
	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7
			K.—ANIMISTIC.			
0—4 years	...	...	...	...	...	...
5—9 „	...	...	...	...	...	...
10—14 „	...	...	...	...	...	...
15—19 „	1	...	...	...	...	...
20—24 „	...	...	...	...	...	...
25—29 „	1	...	2	...	1	...
30—34 „	...	...	4	...	...	...
35—39 „	...	...	2	...	...	...
40—44 „	...	...	...	...	9	...
45—49 „	...	...	...	...	1	...
50—54 „	...	...	...	...	1	...
55—59 „	...	...	...	...	...	...
60 and over	...	...	2	...	...	...
TOTAL ANIMISTIC	2	...	10	...	12	...
			L.—MINOR RELIGIONS.			
0—4 years	...	...	...	...	...	...
5—9 „	...	...	...	...	...	...
10—14 „	...	...	...	...	...	...
15—19 „	...	...	...	...	...	...
20—24 „	...	...	...	...	...	...
25—29 „	...	...	...	...	...	...
30—34 „	...	...	1	...	...	...
35—39 „	...	...	...	...	...	...
40—44 „	...	...	...	...	...	...
45—49 „	...	...	...	...	...	...
50—54 „	...	...	...	...	...	...
55—59 „	...	...	...	...	...	...
60 and over	...	...	...	...	...	...
TOTAL MINOR RELIGIONS	...	...	1	...	...	...

1891.

TABLE IX.

The Population by Literacy.

Age and Province.	Total.		Learning.		Literate.		Illiterate.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	3	4	6	7	9	10	12	13
A.—Summary . Total .	13,375	2,234	344	77	2,789	105	10,242	2,052
0—14 .	775	791	192	76	34	28	549	687
15—24 .	1,056	259	31	1	370	27	655	231
25 and over.	11,544	1,184	121	...	2,385	50	9,038	1,134
B.—Hindu . . Total .	8,002	1,431	141	33	1,412	26	6,449	1,372
0—14	478	496	110	33	22	16	346	447
15—24 .	539	135	22	...	167	2	350	133
25 and over.	6,985	800	9	...	1,223	8	5,753	792
C.—Sikhs . . Total .	322	73	9	...	172	1	141	72
0—14 .	25	23	6	...	...	...	19	23
15—24 .	6	23	1	...	5	...	...	23
25 and over.	291	27	2	...	167	1	122	26
D.—Jains . . Total .	3	...	...	...	...	...	3	...
0—14 .	...	...	...	...	...	...	...	...
15—24 .	...	...	...	...	...	...	...	...
25 and over.	3	...	...	...	...	...	3	...
E.—Buddhist . Total .	1,285	5	95	...	376	1	814	4
0—14 .	7	1	...	...	...	...	7	1
15—24 .	172	...	...	...	8	...	164	...
25 and over.	1,106	4	95	...	368	1	643	3
G.—Musalman . Total .	3,382	598	82	21	567	15	2,733	562
0—14 .	212	212	61	21	5	4	146	190
15—24 .	208	73	7	...	61	3	140	70
25 and over.	2,962	310	14	...	501	8	2,447	302
H.—Christian . Total .	356	127	17	23	260	62	79	42
0—14 .	53	56	15	22	7	8	31	26
15—24 .	130	28	1	1	128	22	1	5
25 and over.	173	43	1	...	125	32	47	11
K.—Animistic . Total .	24	...	...	...	1	...	23	...
0—14 .	...	...	...	...	...	...	...	...
15—24 .	1	...	...	...	1	...	...	...
25 and over.	23	...	...	...	...	...	23	...
L.—Minor Religions Total	1	...	...	...	1	...	...	...
0—14 .	...	...	...	...	...	...	...	...
15—24 .	...	...	...	...	...	...	...	...
25 and over.	1	...	...	...	1	...	...	...

1891.

TABLE X (C).

LINGUISTIC DISTRIBUTION OF EACH PROVINCE AND STATE.

Language.	Population.			Language.	Population.		
	Total.	Males.	Females.		Total.	Males.	Females.
1	2	3	4	1	2	3	4
Hindi	5,963	4,782	1,181	Sindhi	199	189	10
Bengali	1,615	1,515	100	Gond	117	117	...
Panjabi	1,513	1,265	248	Korwa	101	79	22
Burmese	1,014	984	30	Shan	67	67	...
Marathi	913	796	117	Marwadi	64	56	8
Telugu	688	597	91	Arabic	44	36	8
Tamil	562	420	142	Assamese	40	38	2
English	436	337	99	Karen	38	38	...
Pashtu	414	378	36	Thibetan	37	31	6
Kanarese	395	342	53	Others (17)	119	118	1
Gujarati	364	326	38	Unrecognisable	303	294	9
Malayalam	311	307	4				
Uriya	292	263	29	TOTAL	15,609	13,375	2,234

TABLE XI.

THE POPULATION BY BIRTHPLACE.

Residence of persons born in the Andamans.	Population.			Birthplace of residents in the Andamans.	Population.		
	Total.	Males.	Females.		Total.	Males.	Females.
1	2	3	4	5	6	7	8
Andamans	1,499	1,288	211	INDIA.			
Assam	2	...	2	Andamans	1,499	1,288	211
Bengal	46	39	7	Assam	62	62	...
Berar	4	1	3	Bengal	2,842	2,380	462
Bombay	28	12	16	Berar	...	...	..
Sindh	7	2	5	Bombay	493	436	57
Burma	12	6	6	Sindh	...	...	...
Central Provinces	23	12	11	Burma	703	662	41
Coorg	1	...	1	Central Provinces	321	200	121
Madras	72	33	39	Coorg	...	...	...
North-West Provinces	57	30	27	Madras	2,417	2,086	331
Oudh	16	14	2	North-West Provinces.	2,486	2,204	282
Panjab	129	76	53	Oudh	1,454	1,278	176
Hyderabad	3	2	1	Panjab	1,762	1,455	307
Mysore	9	7	2	Hyderabad	166	79	87
Rajputana	...	...	...	Mysore	19	17	2
Central India	...	...	...	Rajputana	891	808	83
Bengal States	...	...	...	Central India	60	46	14
Punjab States	1	1	...	Bengal States	23	16	7
TOTAL	1,909	1,523	386	Panjab States	...	...	...
				OTHER ASIATIC COUNTRIES.			
				Balochistan	25	...	...
				Turkestan	16	...	...
				China	285	...	...
				Arabia and Baghdad	1	...	...
				OUTSIDE ASIA.			
				England and Wales	48	...	...
				Scotland	13	...	...
				Ireland	15	...	...
				Canada	3	...	...
				Born at sea	5	...	...
				TOTAL	15,609	...	...

1891.

TABLE XVI.

THE POPULATION BY OCCUPATION OR MEANS OF LIVELIHOOD.

Part B.—Territorial Distribution by Occupation.

ORDER AND SUB-ORDER, ETC.	Andaman Islands. (*Port Blair.*) TOTAL.
I.—STATE AND LOCAL ADMINISTRATION.	878
1. State Service	854
2. Local or municipal service	4
3. Village Service	20
II.—DEFENCE.	280
4. Army	280
IV.—PROVISION AND CARE OF CATTLE.	12
8. Pastoral—Horses and horned cattle	12
V.—AGRICULTURE.	1,200
10. Interest in Land	1,169
12. Cultivation of Special Products	28
13. Agricultural Supervision and Training.	3
VI.—PERSONAL, HOUSEHOLD, AND SANITARY SERVICES.	121
14. Personal and Domestic Services	121
VII.—FOOD, DRINK, AND STIMULANTS.	164
17. Animal Food	98
18 Vegetable Food	54
19. Drinks, Condiments, Narcotics, etc.	12
VIII.—LIGHT, FIRING, AND FORAGE.	13
20. Lighting	13
XII.—TEXTILE FABRICS AND DRESS.	71
42. Dress	71
XIII.—METALS AND PRECIOUS STONES.	17
43. Gold, Silver, and Precious Stones	7
45. Tin, Zinc, and Quicksilver	7
46. Iron and Steel	3
XIV.—GLASS, POTTERY, AND STONE WARE.	5
48. Earthern and Stone ware	5
XV.—WOOD, CANE, AND MATTING.	60
49. Wood	60
XVI.—DRUGS, DYES, GUMS, ETC.	1
Drugs, dyes, and pigments	1
XVII.—LEATHER, HORNS, BONES, ETC.	13
53. Leather, Horns and Bones, etc.	13
XVIII.—COMMERCE.	48
55. General Merchandise	10
56. Dealing unspecified	38
XIX.—TRANSPORT AND STORAGE.	74
58. Railway	10
60. Water	41
61. Messages	23
XX.—LEARNED AND ARTISTIC PROFESSIONS.	224
63. Religion	4
64. Education	67
65. Literature	43
66. Law	9
67. Medicine	31
68. Engineering and Survey	43
71. Music, Acting, and Dancing	27
XXII.—EARTHWORK AND GENERAL LABOUR.	46
74. General labour	46
XXIII.—INDEFINITE AND DISREPUTABLE MEANS OF LIVELIHOOD.	14
75. Indefinite	14
XXIV.—MEANS INDEPENDENT OF WORK.	12,368
76. Property and Alms	8
77. Supported at the State expense	12,360
Total Population	**15,609**

1891.

SUPPLEMENTARY TABLE A.

The Christian Population by Race and Denomination.

Part I.—General Return.

Denomination and Province or State.	Total Returned.	Distribution by Race.		
		European.	Eurasian.	Native and African.
1	2	3	4	5
Andamans.				
Church of England	361	260	84	17
Roman Catholic	57	12	8	37
Presbyterian	31	31	...	...
Wesleyan	8	8	...	...
Lutheran	5	4	...	1
Protestant	2	1	...	1
Dissenter	1	...	1	...
Episcopalian	1	...	1	...
Unitarian	17	...	17	...
Total .	483	316	111	56

APPENDIX C.

CENSUS TABLES FOR 17TH FEBRUARY 1881.

1881.

FORM I.

GENERAL STATEMENT OF AREA AND POPULATION.

	Area in square miles.	No. of Towns and Villages.	No. of Houses.			Total Population of both sexes.	Total Males.	Total Females.	No. of Persons per square mile.	No. of Towns or Villages per 100 miles.	Number of Houses per square mile.	Number of Persons per occupied house.
			Occupied.	Unoccupied.	Total.							
1	2	3	4	5	6	7	8	9	10	11	12	13
Port Blair	880·2	51	2,938	31	2,969	14,628	12,640	1,988	16·66	·51	3·3	4·98

FORM III.

STATEMENT OF THE DISTRIBUTION OF THE POPULATION ACCORDING TO RELIGION.

	Total Population.			Hindu.			Mahomedan.			Christian.		
	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
Port Blair	14,628	12,640	1,988	9,668	8,430	1,238	3,773	3,255	518	584	424	160

	Brahmo.			Buddhist.			Kol.			Chinese.		
	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.
	14	15	16	17	18	19	20	21	22	23	24	25
Port Blair	68	60	8	30	24	6	5	5	...	31	29	2

	Sonthal.			Sikh.			Others (Jangali).		
	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.
	26	27	28	29	30	31	32	33	34
Port Blair	15	15	...	339	334	5	115	64	51

FORM V.

STATEMENT SHOWING THE CIVIL CONDITION OF THE POPULATION.

	Single.			Married.			Widowed.			Grand Total.		
	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.	Both sexes.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
Port Blair	7,214	6,678	536	7,151	5,871	1,280	263	91	172	14,628	12,640	1,988

1881.

FORM VI.

THE POPULATION BY CIVIL CONDITION, AGE, AND RELIGION.

Age.	HINDU.						MAHOMEDAN.					
	Single.		Married.		Widowers and Widows.		Single.		Married.		Widowers and Widows.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
0— 9 years . .	261	230	...	2	...	...	125	101	1	4	...	...
10—14 „ . .	75	45	8	10	...	1	47	33	10	12	...	1
15—19 „ . .	51	3	10	24	...	1	29	2	10	11	...	2
20—24 „ . .	374	2	194	63	7	12	139	...	100	23	1	3
25—29 „ . .	779	11	521	159	11	30	238	...	208	63	10	9
30—39 „ . .	1,750	4	1,615	340	14	29	569	...	553	123	7	10
40—49 „ . .	724	1	992	134	7	18	351	...	339	74	5	5
50—59 „ . .	342	...	371	54	2	18	121	...	166	23	7	4
60 and upwards . .	151	...	166	32	5	15	91	2	127	12	1	1
Total	4,507	296	3,877	818	46	124	1,710	138	1,514	345	31	35

Age	CHRISTIAN.						BRAHMO.					
	Single.		Married.		Widowers and Widows.		Single.		Married.		Widowers and Widows.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
0—9 years . .	59	41	...	1	...	...	...	2	...	...	...	...
10—14 „ . .	16	17	...	...	...	...	1	1	...	...	...	...
15—19 „ . .	16	7	...	10	...	...	...	...	...	...	...	...
20—24 „ . .	95	1	5	10	...	...	3	...	1	1	...	...
25—29 „ . .	48	2	27	10	2	1	6	...	10	2	...	...
30—39 „ . .	24	4	61	24	4	4	6	...	12	2	...	...
40—49 „ . .	8	...	40	15	4	...	4	...	14	...	...	...
50—59 „ . .	2	...	9	4	1	6	2	...	1	...	...	...
60 and upwards . .	...	1	2	...	1	2	...	...	...	...	...	...
Total .	268	73	144	74	12	13	22	3	38	5	...	...

1881.

FORM VI.

THE POPULATION BY CIVIL CONDITION, AGE, AND RELIGION—(*continued*).

AGE.	BUDDHIST.						KOL.					
	SINGLE.		MARRIED.		WIDOWERS AND WIDOWS.		SINGLE.		MARRIED.		WIDOWERS AND WIDOWS.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
0— 9 years . .	2	1	...	...	...	...	...	...	...	...	...	...
10—14 . . .	4	...	...	...	...	...	...	...	...	...	...	...
15—19 . . .	...	...	...	...	...	...	...	...	...	...	...	...
20—24 . . .	1	...	...	1	...	...	...	...	...	...	...	...
25—29 . . .	...	...	4	1	...	...	...	...	2	...	...	...
30—39 . . .	2	...	7	2	...	...	2	...	...	...	...	...
40—49 . . .	1	...	2	1	...	...	...	...	1	...	...	...
50-59 . . .	...	...	1	...	...	...	...	...	...	...	...	...
60 and upwards . .	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL .	10	1	14	5	...	...	2	...	3	...	...	...

AGE.	CHINESE.						SONTHAL.					
	SINGLE.		MARRIED.		WIDOWERS AND WIDOWS.		SINGLE.		MARRIED.		WIDOWERS AND WIDOWS.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
0— 9 years . .	...	...	...	...	...	...	...	...	...	...	...	...
10-14 . . .	...	...	...	...	...	...	...	...	...	...	...	...
15—19 . . .	1	...	...	...	...	...	...	...	1	...	...	...
20—24 . . .	6	...	1	...	...	...	...	...	...	...	...	...
25—29 . . .	2	...	3	...	...	...	...	...	2	...	...	...
30—39 . . .	6	...	1	...	...	...	1	...	2	...	...	...
40—49 . . .	3	...	3	...	...	...	...	...	4	...	...	...
50—59 . . .	1	1	1	...	...	...	1	...	2	...	...	...
60 and upwards . .	1	1	...	...	...	...	...	...	2	...	...	...
TOTAL .	20	2	9	...	...	...	2	...	13	...	...	...

1881.

FORM VI.

THE POPULATION BY CIVIL CONDITION, AGE, AND RELIGION—(*concluded*).

AGE.	SIKH.						OTHEES (JANGALI).					
	SINGLE.		MARRIED.		WIDOWERS AND WIDOWS.		SINGLE.		MARRIED.		WIDOWERS AND WIDOWS.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
0— 9 years.	6	...	...	...	...	...	8	14	...	...	...	...
10—14 „	1	...	...	...	...	...	10	5	6	2	...	...
15—19 „	9	...	...	1	...	...	10	3	10	12	...	...
20—24 „	20	...	36	...	...	...	2	1	3	10	...	...
25—29 „	18	...	46	1	...	...	1	...	5	2	...	...
30—39 „	41	...	91	...	2	...	2	...	7	2	...	...
40—49 „	7	...	29	1	...	...	...	...	...	...	...	...
50—59 „	2	...	16	1	...	...	...	...	...	...	...	...
60 and upwards	...	...	10	1	...	...	...	...	...	...	...	...
TOTAL	104	...	228	5	2	...	33	23	31	28	...	...

FORM VII.

AGES OF THE POPULATION BY RELIGIONS.

AGE.	HINDU.		MOHOMEDAN.		CHRISTIAN.		BRAHMO.		BUDDHIST.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11
Under 1 year	32	33	21	14	2	4	...	...	...	...
1 „	34	31	15	15	7	7	...	1	1	...
2 years	35	29	13	14	8	1	...	...	...	...
3 „	30	34	14	12	9	7	...	...	...	...
4 „	25	29	13	12	1	6	...	...	1	...
5—9 „	105	76	50	38	32	17	...	1	...	1
10—14 „	83	56	57	46	16	17	1	1	4	...
15—19 „	61	28	39	15	16	17	...	...	...	...
20—24 „	575	77	240	26	100	11	4	1	1	1
25—29 „	1,311	200	456	72	77	13	16	2	4	1
30—34 „	2,199	213	709	84	61	15	11	1	7	2
35—39 „	1,180	160	420	49	28	17	7	1	2	...
40—44 „	1,282	113	532	66	32	3	15	...	2	1
45—49 „	441	40	163	13	20	12	3	...	1	...
50—54 „	592	63	235	24	8	...	2	...	1	...
55—59 „	128	9	59	3	4	10	1	...	...	...
60 and over	322	47	219	15	3	3	...	...	...	...
TOTAL	8,430	1,238	3,255	518	424	160	60	8	24	6

AGE.	KOL.		CHINESE.		SONTHAL.		SIKH.		OTHERS (JANGALI).	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
12	13	14	15	16	17	18	19	20	21	22
Under 1 year	...	...	...	...	...	...	...	...	...	...
1 „	...	...	...	...	...	...	2	...	...	...
2 years	...	...	...	...	...	...	1	...	...	...
3 „	...	...	...	...	...	...	1	...	...	1
4 „	...	...	...	...	...	...	...	...	4	1
5—9 „	...	...	...	...	...	...	2	...	4	12
10—14 „	...	...	...	...	...	...	1	...	16	7
15—19 „	...	...	1	...	1	...	9	1	20	15
20—24 „	...	...	7	...	...	...	56	...	5	11
25—29 „	2	...	5	...	2	...	64	1	6	2
30—34 „	1	...	5	...	1	...	74	...	8	2
35—39 „	1	...	2	...	2	...	60	...	1	...
40—44 „	1	...	6	...	4	...	21	1	...	...
45—49 „	...	...	...	...	...	...	15	...	...	...
50—54 „	...	...	1	...	3	...	11	1	...	...
55—59 „	...	...	1	1	...	...	7	...	...	...
60 and over	...	...	1	1	2	...	10	1	...	...
TOTAL	5	...	29	2	15	...	334	5	64	51

1881.

FORM VIII.

Distribution of the Hindu Population by Caste.

Caste.	Males.	Females.	Both sexes.
1	2	3	4
Brahmans	404	43	447
Rajputs and Thakurs	655	83	738
Adaus	74	79	153
Ahirs	309	52	361
Banniahs	166	14	180
Chamar	185	29	214
Dhols	55	65	120
Hajam	146	21	167
Kahar	105	26	131
Kayasth	129	19	148
Kurim	550	139	689
Papi	169	32	201
Others	5,483	636	6,119
Total	8,430	1,238	9,668

1881.

FORM IX.

Distribution of the Population according to Language.

Language.	Population.			Language.	Population.		
	Males.	Females.	Total both sexes.		Males.	Females.	Total both sexes.
1	2	3	4	1	2	3	4
Bengali	1,622	128	1,750	Arracanese	1	...	1
Hindi, Hindustani, and Urdu	5,638	1,092	6,730	Baluchi	33	...	33
Uriya	137	10	147	Pahari	143	12	155
English	366	111	477	Nepalese	9	2	11
Telugu	528	26	554	Marwari	49	...	49
Mahrathi	1,025	188	1,213	Gondi	3	1	4
Panjabi	1,167	245	1,412	Banjari	2	...	2
Canarese	422	41	463	Tamil	138	31	169
Burmese	121	17	138	Armenian	1	...	1
Gujarati	267	20	287	Singalese	4	...	4
Paghtu (Pashtu)	111	6	117	Spanish	1	...	1
Malayalim	57	5	62	Naga	1	...	1
Arabic	45	...	45	Sonthali	8	1	9
Sindhi	38	4	42	Andamanese	...	3	3
Assamese	18	5	23	Unspecified	3	...	3
Chinese	25	6	31				
Madrasi	657	34	691				
				Total all Languages	12,640	1,988	14,628

1881.

FORM X.

DISTRIBUTION OF THE POPULATION ACCORDING TO BIRTHPLACE BY DISTRICTS WITHIN THE PROVINCE, AND OUTSIDE THE PROVINCE ACCORDING TO PROVINCE OR COUNTRY.

District where born.	PORT BLAIR.		
	Males.	Females.	Both sexes.
1	2	3	4
INSIDE ASIA WITHIN THE PROVINCE.			
Andaman Islands	488	266	754
INSIDE INDIA.			
Assam	190	17	207
Bengal	2,296	283	2,579
Bengal Feudatory States	15	2	17
Berar	36	3	39
Bombay and Sindh	877	81	958
Bombay Feudatory States	220	19	239
British Burma	190	18	208
Bundelkhand	41	10	51
Central Provinces	1,047	165	1,212
Gwalior	27	...	27
Hyderabad	84	20	104
Madras	1,727	307	2,034
Madras Feudatory States	200	4	204
Mysore	199	17	216
North-West Provinces and Oudh	2,876	462	3,338
Panjab	1,746	284	2,030
Rajputana	179	17	196
Sikkim	7	2	9
OUTSIDE INDIA.			
Afghanistan	1	...	1
Arabia	2	...	2
Bhutan	2	...	2
Kashmir	2	...	2
Ceylon	3	2	5
China	12	...	12
Cochin China	...	1	1
Goa	4	...	4
Nepal	10	1	11
Turkey	1	...	1
OUTSIDE ASIA.			
England	118	6	124
Scotland	6	...	6
Ireland	34	1	35
TOTAL	12,640	1,988	14,628

1881.

FORM XII.

OCCUPATIONS OF THE MALE POPULATION ONLY ARRANGED ALPHABETICALLY.

	Occupation.	Hindu.	Mahomedan.	Others.	TOTAL.
1	Artificers	2	1	...	3
2	Assistant Apothecary	...	...	1	1
3	Bamboo-sellers	1	1	...	2
4	Barbers	26	5	...	31
5	Bearers	1	...	...	1
6	Betel-sellers	1	...	...	1
7	Blacksmiths	20	3	1	24
8	Boatmen	12	4	...	16
9	Brazier	1	...	...	1
10	Carpenters	23	7	8	38
11	Cart-drivers	3	...	...	3
12	Cashiers	3	...	...	3
13	Chaukidars	11	7	...	18
14	Cloth-dyer	1	...	...	1
15	Cloth merchants	1	4	...	5
16	Cocoanut-sellers	1	1	...	2
17	Convicted prisoners	5,412	1,897	131	7,440
18	Constables	...	...	9	9
19	Cooks	3	...	5	8
20	Cultivators	956	290	32	1,278
21	Cultivators and Chaukidars	2	...	...	2
22	Ditto and labourers	2	3	...	5
23	Ditto and service	2	...	...	2
24	Ditto and teachers	1	...	...	1
25	Ditto and zemindars	1	...	...	1
26	Doctors	...	...	2	2
27	Fish-sellers	25	12	...	37
28	Fowlers	7	20	1	28
29	Ganja-sellers	3	1	...	4
30	Gardeners	9	7	...	16
31	Gilders	5	8	...	13
32	Goldsmiths	3	...	...	3
33	Grain parchers	1	...	...	1
34	Grocers	1	...	...	1
35	Herdsmen	6	3	...	9
36	Hunters	...	...	25	25
37	Labourers	18	16	...	34
38	Masons	3	1	...	4
39	Merchants	2	7	2	11
40	Milk-sellers	72	34	3	109
41	Money-changers	1	1	...	2
42	Money-lenders	3	9	...	12
43	Oil-sellers	1	1	...	2
44	Pensioners	...	1	...	1
45	Potters	6	1	...	7
46	Priests	1	1	...	2
47	Railway contractors	...	...	11	11
48	Service	579	392	557	1,528
49	Shoe-makers	11	1	...	12
50	Shop-keepers	55	30	3	88
51	Soldiers	...	...	15	15
52	Sugar-sellers	1	1	...	2
53	Sweet-meat-sellers	26	16	...	42
54	Sweepers	5	1	...	6
55	Tailors	6	14	...	20
56	Teachers	1	...	...	1
57	Unspecified	1,050	424	147	1,621
58	Vegetable-sellers	4	5	1	10
59	Washermen	33	19	...	52
60	Wine-sellers	1	...	1	1
61	Wood-sellers	4	6	...	10
62	Zemindars	1	...	...	1
	TOTAL	8,430	3,255	955	12,640

1881.

FORM XIII.

DISTRIBUTION OF THE POPULATION ACCORDING TO EDUCATION AND RELIGION.

RELIGION.	MALES.				FEMALES.			
	Under instruction.	Not under instruction and able to read and write.	Not under instruction and unable to read and write.	Total Males.	Under instruction.	Not under instruction and able to read and write.	Not under instruction and unable to read and write.	Total Females.
1	2	3	4	5	6	7	8	9
Hindu . .	56	803	7,571	8,430	11	5	1,222	1,238
Mahomedan .	35	304	2,916	3,255	7	4	507	518
Christian .	31	250	143	424	18	34	108	160
Sikhs . .	6	18	310	334	...	...	5	5
Kol . .	...	...	5	5	...	...	...	...
Chinese . .	...	2	27	29	...	...	2	2
Sonthal . .	...	2	13	15	...	...	...	...
Buddhist .	2	5	17	24	...	...	6	6
Brahmo . .	1	12	47	60	...	...	8	8
Others (Jangali)	...	...	64	65	...	...	51	51
TOTAL .	131	1,396	11,113	12,640	36	43	1,909	1,088

FORM XIV.

NUMBER OF PERSONS OF UNSOUND MIND, BY RELIGION, AGE, AND SEX.

AGE.	HINDU.		MAHOMEDAN.	
	Males.	Females.	Males.	Females.
1	2	3	4	5
Under 5 years . .	...	...	...	...
5— 9 „ . .	...	...	...	...
10—14 „ . .	...	...	...	...
15—19 „ . .	...	...	...	...
20—29 „ . .	5	...	2	...
30—39 „ . .	18	—	5	...
40—49 „ . .	12	...	5	...
50—59 „ . .	2	...	1	...
60 and over . .	2	...	...	...
TOTAL .	39	...	13	...

1881.

FORM XV.

NUMBER OF BLIND, BY RELIGION, AGE, AND SEX.

AGE.	HINDU.		MAHOMEDAN.	
	Males.	Females.	Males.	Females.
1	2	3	4	5
Under 5 years	...	...	...	1
5— 9 „	...	...	...	...
10—14 „	...	...	...	...
15—19 „	...	...	...	...
20—29 „	...	...	...	...
30—39 „	...	...	...	...
40—49 „	...	...	...	...
50—59 „	1	...	...	...
60 and over	1	1	...	...
TOTAL	2	1	...	1

FORM XVI.

NUMBER OF DEAF-MUTES, BY RELIGION, AGE, AND SEX.

AGE.	HINDU.		MAHOMEDAN.		CHRISTIAN.	
	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7
Under 5 years	...	...	...	...	...	...
5— 9 „	...	...	...	...	...	...
10—14 „	1	...	...	1	...	...
15—19 „	...	...	...	...	...	...
20—29 „	...	...	...	...	...	...
30—39 „	1	...	...	...	...	...
40—49 „	...	...	1	...	...	...
50—59 „	...	...	...	...	...	...
60 and over	...	...	...	...	1	...
TOTAL	2	...	1	1	1	...

1881.

FORM XVII.

NUMBER OF LEPERS, BY RELIGION, AGE, AND SEX.

AGE.	HINDU.		MAHOMEDAN.		BRAHMO.	
	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7
Under 5 years .	...	...	...	...	...	...
5—9 „ .	...	...	...	...	...	...
10—14 „ .	...	...	...	...	...	...
15—19 „ .	...	...	...	...	...	...
20—29 „ .	5	...	...	...	...	...
30—39 „ .	10	...	...	...	1	...
40—49 „ .	3	...	2	...	...	...
50—59 „ .	6	...	...	...	...	...
60 and over .	3	...	...	...	...	...
TOTAL .	27	...	2	...	1	...

FORM XVIII.

CLASSIFICATION OF VILLAGES AND TOWNS.

	With less than 200 inhabitants.	With from 200 to 500 inhabitants.	With from 500 to 1,000 inhabitants.	With from 1,000 to 2,000 inhabitants.	With from 2,000 to 3,000 inhabitants.	Total number of villages and towns.
Port Blair . .	30	13	4	3	1	51

CHAPTER II.

DESCRIPTIVE.

I.—Geography.—Physical Geography—Occupied and Unoccupied Area—Coasts—Forests—Hills—Streams—Administrative Geography—Divisions—Stations and Villages—Free and Convict—Afforested and unafforested lands—Communications—Harbour amenities.

II.—Administration.—General Description—Jails and Hospitals—Nature of the Population—The Penal System—Justice—The Objects of the Penal System—Finance—Cost of the Convict.

III.—History.—History and Origin of the Andaman System—Sir Stamford Raffles—The Eighteenth Century Settlement—History of the Penal Settlement is a History of Official Development—The Andaman Commission—Dr. F. J. Mouat and General H. Man—Dr. J. P. Walker—The Andaman Sebundy Corps—Colonel J. C. Haughton—The Andaman Tokens—Transfer to Burma—Colonel R. C. Tytler—Reverend H. Corbyn and Andamanese Friendly Relations—Lord Napier of Magdala's reforms—Colonel B. Ford—Mr. J. N. Homfray's Management of the Andamanese—Temporary Paper Money—Colonel Nelson Davies' Report—General H. Man—Retransfer to Government of India—Nicobar Penal Settlement—Andaman Orphanage—Sir Donald Stewart—Lord Mayo's Reforms—Lord Mayo's Murder—Mr. Scarlett Campbell's reforms—Andaman and Nicobar Chief Commissionership—Sir Henry Norman's reforms—Mr. E. H. Man's Management of the Andamanese—General C. A. Barwell—Colonel T. Cadell, V. C.—Lyall-Lethbridge Commission—Andaman and Nicobar Handbook and Manual—Mr. M. V. Portman's Management of the Andamanese—Colonel N. M. Horsford—Colonel Sir Richard Temple.

IV.—Language.—Urdu, the Local Vernacular—Its Nature—The Numerals—Specimens.

Appendix A.—Letters of Sir Stamford Raffles.

I. Geography.

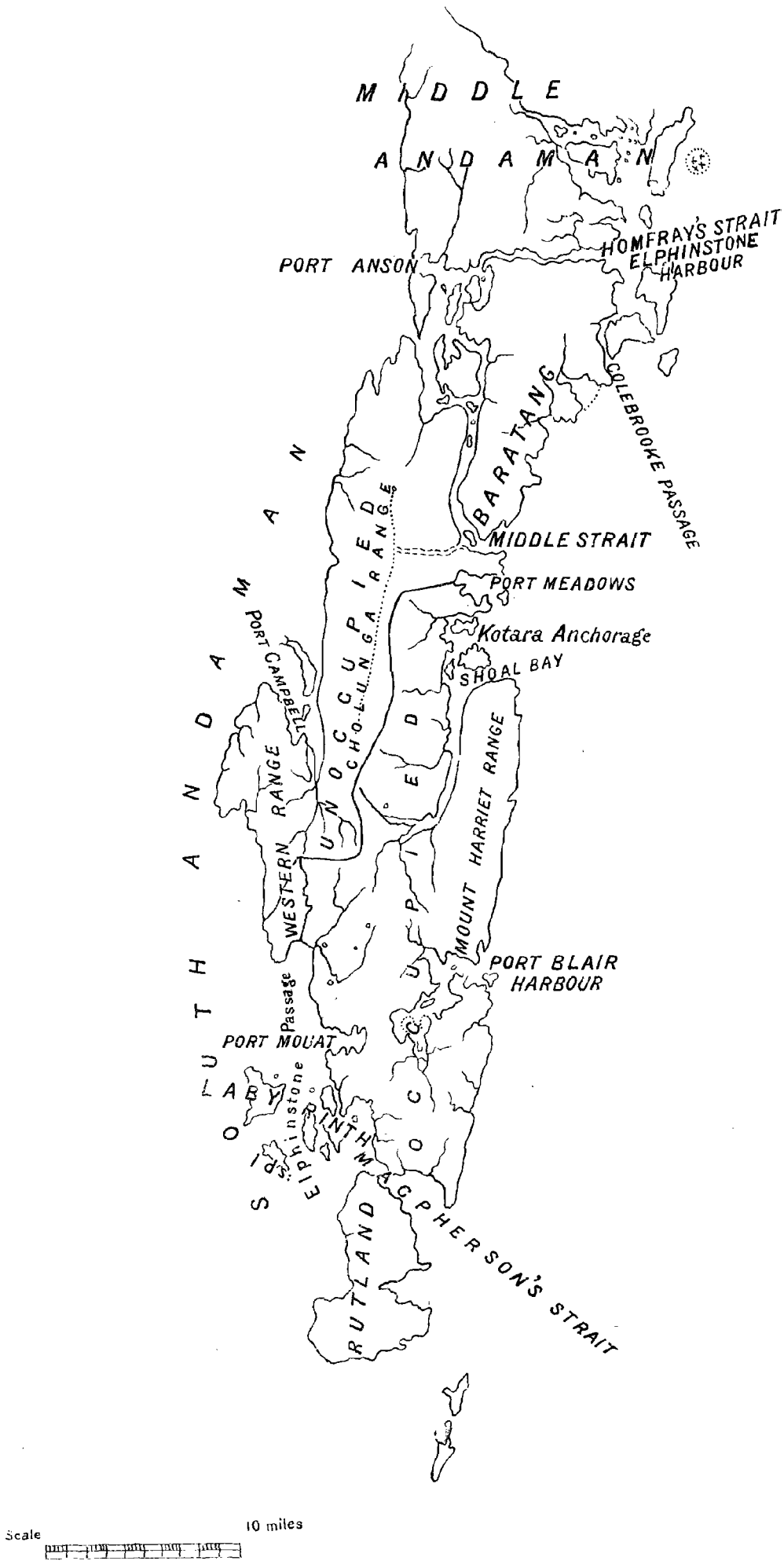
Physical Geography.—The Penal Settlement of Port Blair consists officially of the South Andaman and the islets attached thereto, and covers 473 square miles. Of this area, at the present date, 327 square miles may be said to be in actual occupation.

Occupied and Unoccupied Area.—The unoccupied area consists of the densest imaginable jungle throughout every part of it. The occupied area is partly cleared for cultivation, grazing and habitation, and partly afforested. A great part of the unoccupied area is in the hands of the hostile Jarawas, as already explained, but they are gradually retreating northwards under pressure of the yearly increasing forest operations extending step by step over the whole South Andaman, *i.e.*, over the whole official area of the Penal Settlement.

Coasts.—The South Andaman Island has a very deeply indented coast-line comprising the harbours, on the east coast, of Port Meadows, Port Blair; on the south coast, of Macpherson's Strait; on the west coast, of Port Mouat, Port Campbell, Port Anson. In any one of these, vessels of any draught could anchor and trade with safety in any weather and in any season. If Baratang be added to the South Andaman as a natural appanage, Elphinstone Harbour must be added to the list.

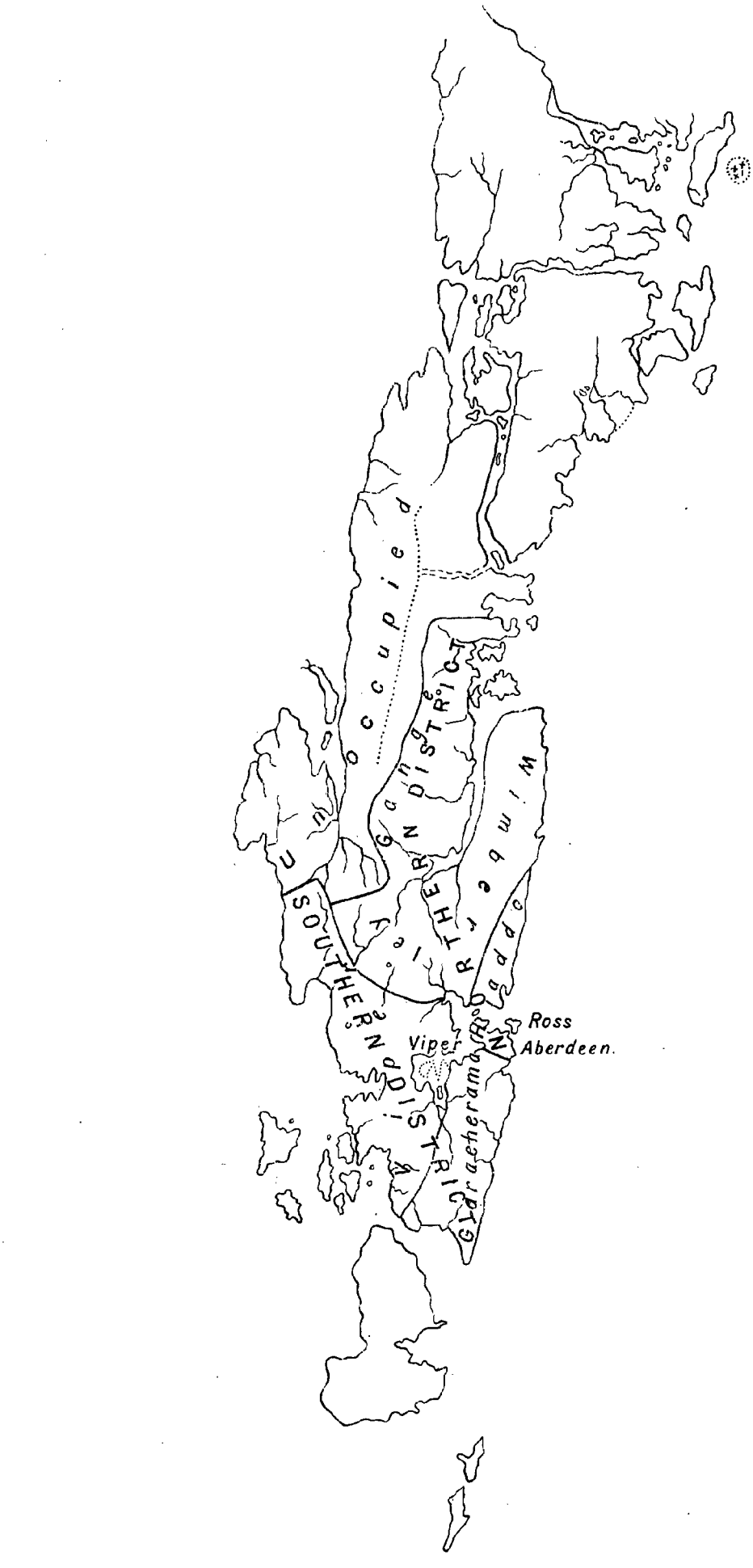
Smaller vessels would also find the following places safe for shelter and most convenient for work. On the east coast, Colebrooke Passage, Kotara Anchorage, Shoal Bay; on the west coast, Elphinstone Passage in the Kabyrinth Islands, and in some seasons Constance Bay; in Ritchie's Archipelago, Lwangtung Strait and Tadma Jaru, and in some seasons Outram Harbour.

PENAL SETTLEMENT OF PORT BLAIR.



PENAL SETTLEMENT

MAP OF DISTRICT AND SUB-DIVISION



Forests.—For forest trade, the staple trade of the islands, a more convenient natural arrangement is hardly imaginable. Port Mouat is only 2 miles distant from Port Blair over an easy rise, Shoal Bay is 7 miles with an easy gradient from Port Blair and runs into Kotara Anchorage, and Port Meadows is but a mile from Kotara Anchorage. Creeks navigable for large steam launches run into Port Blair from some distance inland. Five straits surround the island: two, Macpherson's Strait and Elphinstone Passage, navigable by ships; and the rest, Middle Strait, Colebrooke Passage and Homfray's Strait, navigable by large steam launches. Diligent Strait, fit for the largest ships and only 4 miles across at the narrowest point, separates Ritchie's Archipelago from the main islands, and the archipelago is itself intersected everywhere by straits and narrows mostly navigable.

Hills.—The whole of the Settlement area consists of hills separated by narrow valleys, rendering road-making and rapid land communication difficult. The main ranges are the Mount Harriett Range up to 1,500 feet, the Cholunga Range up to 1,000 feet, and the West Coast Range up to 700 feet. These run about parallel north and south down the centre of the island. To the north of the island the Cholunga Range breaks up into a number of north and south ridges more or less parallel. To the south of the island below Port Blair Harbour, the country is a jumble of hills rising to 850 feet and tending to form ridges running north and south.

Streams.—There is no stream in the island which could be called a river and on the east coast perennial streams are not common. On the west and north, however, there is much more surface water to be found, and perennial streams running chiefly south to north are fairly numerous. Fresh water is, however, everywhere obtained without much difficulty from wells, and there is everywhere any number of places where rain-water reservoirs (tanks) could be formed, to be kept perennially filled by the heavy rain of the islands falling in most months of the year.

Navigable salt-water creeks are numerous and of much assistance in water carriage.

Administrative Geography.—The Penal Settlement centres round the harbour of Port Blair, the administrative head-quarters being on Ross Island, an islet of less than a quarter square mile across the entrance of the harbour.

Divisions.—For administrative purposes it is divided into two districts and six sub-divisions. The sub-divisions remain constant, but their distribution between the districts has to vary according to circumstances from time to time. At the Census they were as under :—

Northern District—(District head-quarters, Aberdeen) Ross, Aberdeen, Haddo, Wimberleyganj.

Southern District—(District head-quarters, Viper Island) Viper, Garacherama.

Stations and Villages.—Within the sub-divisions are "stations," *i.e.*, places where labouring convicts are kept, and "villages," where free or self-supporters, respectively, dwell. As these stations and villages perforce enter largely into the life and description of the place, a list is given here.

NORTHERN DISTRICT.

Wimberleyganj sub-division.

1. Hope Town.
2. Shore Point.
3. North Bay.
4. Bamboo Flat.
5. Mount Harriett.
6. Stewartganj.
7. Wimberleyganj.
8. Kadakachang.
9. Goplakabang.
10. Bajajag.
11. Bindraban.
12. Anikhet.
13. Muttra.
14. Kalatang.

Haddo sub-division.

1. Haddo.
2. Phœnix Bay.
3. Aberdeen.
4. South Point (village).
5. Dudh Line.
6. Middle Point.
7. Jangli Ghat.
8. Chatham Island.

Ross sub-division.

1. Ross Island.
2. Female Jail (South Point).

Garacherama sub-division.

1. Tea Garden (Navy Bay).
2. Niagaon.
3. Brookesabad.
4. Birchganj.
5. Ranguchang.
6. Bumlitan.
7. Austenabad.
8. School Line.
9. Bhagelsingpura.
10. Garacherama.
11. Protheroepur.
12. Pahargaon.
13. Minnie Bay.
14. Lamba Line.
15. Taylerabad.
16. Dhani Khari.

Garacherama sub-division—contd.

17. Homfrayganj.
18. Manglutan.

Viper sub-division.

1. Viper Island.
2. Dundas Point.
3. Mitha Khari.
4. Namunaghar.
5. Cadellganj.
6. Ograbaraij.
7. Choldari.
8. Port Mouat.
9. Hobdaypur.
10. Tusonabad.
11. Manpur.
12. Templeganj.

The numbers do not quite agree with the Census returns, because at ten places there are a station and a village, both being shown separately in the Census returns.

Free and Convict.—There is a further sharply marked division of the Settlement into what is known as the " free " and " convict " portions, by which the free settlers living in villages are separated from the ticket-of-leave (self-supporter) convicts also living in villages. Every effort is made to prevent unauthorised communication between these two divisions. The " free " sub-divisions are Ross, Aberdeen, Haddo, and Garacherama. The " convict " sub-divisions are Viper and Wimberleyganj.

Afforested and Unafforested Lands.—There is also a third division of the Settlement of administrative importance into afforested and unafforested lands. As little change as possible is made in these, but the growing condition of the Settlement makes it sometimes imperative to effect small alterations in area.

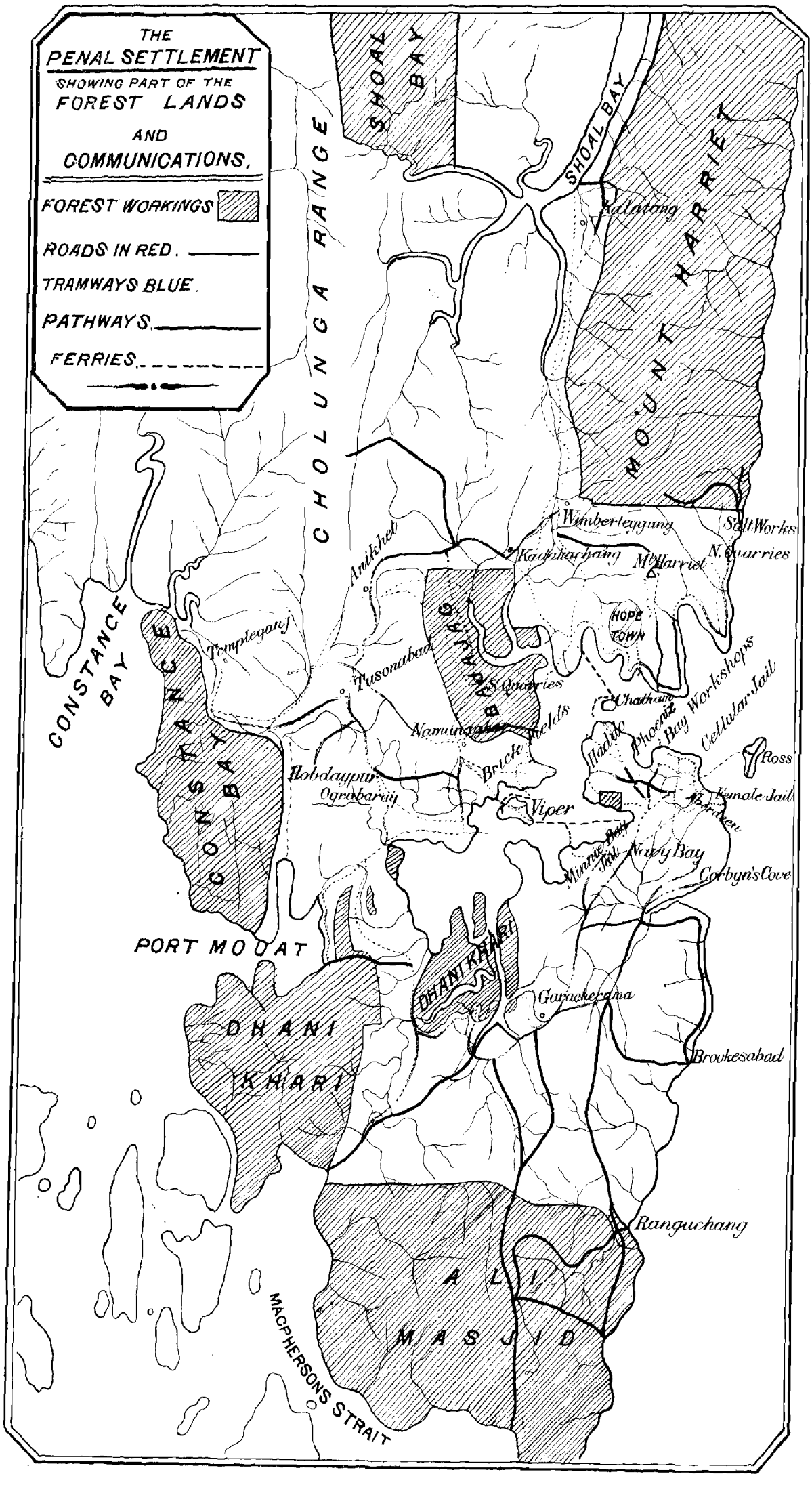
Communications.—The modes of communication are by water about the harbour, by road, and by tram (animal and steam haulage).

The means of communication are unusually good. By water there are eight large and two small steam launches and a considerable number of lighters, barges, and boats of all sizes. Sailing boats, except for the amusements of officers, are, for obvious reasons, not permitted. Ferries ply at fixed and frequent intervals at several points across the harbour.

The roads, owing to convict labour probably the best of any district in India, are practically everywhere metalled, and are unusually numerous. Where convicts are situated it is a matter of importance to get to the spot quickly at very short notice. The road mileage is about 110 metalled and about 50 unmetalled.

The animal-haulage tram-lines are chiefly forest, and their situation varies from time to time according to work. At present the tram-lines are as shown in the map attached. The steam tram-lines are Settlement—Brickfields to South Quarries and Firewood area, 5 miles; North Bay to North Quarries, 2 miles; Forest—Wimberleyganj to Shoal Bay, 7 miles; Bajajag to Constance Bay and Port Mouat, 6 miles. There are besides short lines for work at a good many other places.

Harbour Amenities.—The harbour of Port Blair is well supplied with buoys and harbour lights. There is a light house on Ross Island visible 19 miles, and " running-in " lights, visible 8 miles from both entrances to the harbour, are being fixed on the Cellular Jail at Aberdeen. There is also a complete system of signalling (semagraph) by day and night on the Morse system, worked by the police. Local posts are frequent, but there is no telegraph, and the foreign mails are irregular.


THE
PENAL SETTLEMENT
SHOWING PART OF THE
FOREST LANDS
AND
COMMUNICATIONS.
FOREST WORKINGS
ROADS IN RED.
TRAMWAYS BLUE.
PATHWAYS.
FERRIES.
SHOAL BAY
SHOAL BAY
CHOLUNGA RANGE
MOUNT HARRIET
Kalatang
Wimberleygung
Salt Works
N. Quarries
Kadakachang
Mt Harriet
Andikhet
HOPE TOWN
Templegunj
CONSTANCE BAY
SEA ENTRANCE
Tusonabad
S. Quarries
Chatham
Phoenix Bay Workshops
Cellular Jail
Ross
Female Jail
Viper
Navy Bay
Corbyn's Cove
Brookesabad
PORT MOUAT
OHANI KHARI
Garacherama
Ranguchang
ALI MASJID
MACPHERSONS STRAIT

II.-Administration.

General Description—Penal Settlement.—The Penal Settlement is administered by the Chief Commissioner, Andamans and Nicobars, as Superintendent, with a Deputy and a staff of Assistant Superintendents and Overseers, almost all Europeans, and Sub-Overseers who are natives of India. All the petty supervising establishments are themselves convicts. There are, besides, special departments: Police, Medical, Commissariat, Forests, Tea, Marine, and so on, of the usual type in India, except that all Civil officers are invested with special powers over convicts. The local Commissariat is responsible for the collection and distribution of all supplies required by the Government staff and the rationed convicts. Civil and criminal justice is administered by a series of Courts under the Chief Commissioner and the Deputy Superintendent, as the principal Courts of original and appellate jurisdiction. The Chief Commissioner is also the chief revenue and financial authority. There is a garrison supplied from Rangoon consisting of 140 British and 300 Indian troops, with a few local European volunteers. The Police are organised as a military battalion, 643 strong.

Jails and Hospitals.—There are four district and three jail hospitals in charge of four medical officers under the general supervision of a senior officer of the Indian Medical Service. Medical aid is also given free to the whole population.

The convicts unfit for hard labour are divided into the sick and detained in hospital, convalescents, light labour, invalids, lepers, and lunatics; for each of which classes there are special rules and methods of treatment under direct medical advice.

Nature of the Population.—The population of the Penal Settlement consists of convicts, their guards, the supervising, clerical, and departmental staff, with the families of the latter, also a limited number of ex-convict and trading settlers and their families. The free and convict populations, as has been already pointed out, are separated as far as possible.

The existing class of statistics maintained for the Penal Settlement commenced in and after 1874, two years after the Census of 1872, and so the state of the population with reference to the Census dates can be shown as in the following table: but it must be remembered that, in the intervening years, the figures have varied considerably as to the numbers of the convicts according as they have been sent by the Indian administrations.

The points to notice in the figures are that the establishments have increased since 1874 by 41 per cent., the free resident population by 257 per cent. and the convicts by 74 per cent., showing that the general increase in the population and convicts and the ever-increasing completeness in watch and ward and penal discipline has not been attended with a corresponding increase in establishments.

Penal Settlement.

Comparative Statement of Population.

1874–1901.

FREE POPULATION.

Year.	Administrative Establishment.					Free Resident Population, including Children and conditionally released.		
	Civil.	Military	Marine.	Police.	Total.	Male.	Female.	Total.
1874 . . .	50	426	19	330	825	466	372	838
1881 . . .	45	336	19	736	1,136	941	669	1,610
1891 . . .	85	460	39	541	1,125	1,357	1,340	2,697
1901 . . .	100	466	70	532	1,168	1,623	1,368	2,991

PENAL SETTLEMENT.

Comparative Statement of Population—contd.

1874—1901.

YEAR.	CONVICT POPULATION.			TOTAL POPULATION.				
				ADULTS.		CHILDREN.		TOTAL.
	Male.	Female.	Total.	Male.	Female.	Male.	Female.	
1874 . . .	6,733	836	7,569	7,654	907	370	301	9,232
1881 . . .	10,325	1,127	11,452	11,766	1,329	636	467	14,198
1891 . . .	10,874	864	11,738	12,532	1,439	824	765	15,560
1901 . . .	11,217	730	11,947	13,235	1,477	773	621	16,106

Penal System.—The full penal system, as at present directed, is as follows:—The life convicts are received into the Cellular Jail for six months, where the discipline is of the severest, but the work is not hard. They are then transferred to the Associated Jail for 18 months, where the work is hard, but the discipline less irksome. For the next three years the life convict lives in barracks, locked up at night, and goes out to labour under supervision. For his labour he receives no reward, but his capabilities are studied. During the next five years he remains a labouring convict, but is eligible for the petty posts of supervision and the easier forms of labour; he also gets a very small allowance for little luxuries, or to save in the special Savings Bank. He has now completed ten years in transportation and can receive a ticket-of-leave (self-supporter). In this condition he earns his own living in a village: he can farm, keep cattle, and marry or send for his family. But he is not free, has no civil rights, and cannot leave the Settlement or be idle. After 20 to 25 years spent in the Settlement with approved conduct, he may be absolutely released. While a self-supporter, he is at first assisted with house, food, and tools, and pays no taxes or cesses, but after three to four years, according to certain conditions, he receives no assistance and is charged with every public payment, which would be demanded of him, were he a free man.

The women life convicts are similarly dealt with, but on altogether easier lines. The general principle with regard to them is to divide them into two main classes — those in and those out of the Female Jail. Every woman must remain in the Female Jail, unless in domestic employ by permission or married and living with her husband. Women are eligible for marriage or domestic employ after 5 years in the Settlement, and if married they may leave the Settlement after 15 years with their husbands, all married couples having to wait each for the other's full term under the rules, whichever comes last, and they must leave together. If unmarried, women have to remain 20 years. In the Jail they rise from class to class and can become petty officers on terms similar to those for the men.

Term convicts are treated on the same general lines, except that no term convict can become a self-supporter, and of course every term convict is released at once on the expiry of his term.

Similarly, convict marriages are carefully controlled so as to prevent degeneration into concubinage or irregular alliances, and the special local Savings Bank has proved of great value in inducing a faith on the part of the convicts in the honesty of the Government, irrespective of its value in inducing habits of thrift and diminishing the temptation to violence for the sake of money hoarded privately.

Justice.—All the civil officers are Magistrates and Civil Judges with the ordinary powers of such as exercised by grades in India, and if a term convict misbehaves sufficiently seriously, his case can be tried magisterially and an additional punishment inflicted. In the case of a life convict any term of "chain-gang" inflicted is added to the 20 (or 25) years that he must, in any case, remain. Any offence under the Indian Penal Code or other law, except an

offence involving a capital sentence, is punishable executively as a "convict offence," the exception to this rule being tried at Sessions in the ordinary manner.

"Convict offences," though punishable executively, are all tried, however trivial, by a fixed *quasi*-judicial procedure, including record and appeal, so that the convict is made to feel that justice is, at all times, as secure to him as to the free.

Objects of the Penal System.—The whole drift of the treatment is that of a long education to useful citizenship, throughout which there run continuous threads of practice in self-help and self-restraint and of inducement to profit by the practice. Effort to behave well and submission to control alone guide the convict's upward promotion in due course; every lapse retards it. And when he has his ticket-of-leave, it is only to himself that he has to look to provide that money out of his own earnings as a steady member of society, that is to provide him with a sufficient competence on release. The aim of the Penal Settlement is to educate the outcasts it receives into self-respecting citizens, habituated to provide for themselves in an orderly way. The incorrigible are kept till death, the slow to learn till they mend their ways, and only those that are proved to have good in them are returned to their homes. The root argument on which the system is based is that the acts of the convict spring from a constitutional want of self-control.

Finance.—The penal system is primarily one of discipline, financial considerations giving way to this all-important point. The labour of the convicts is firstly disciplinary; secondly it provides for the wants of the Settlement, so far as these can be supplied locally; thirdly it is expended on objects remunerative in money. All necessary expenditure in money of every kind is granted directly by the Government of India and against this are set off the earnings of the convicts in money. The net result per head is the "cost of the convict" annually, so that the convict is charged with the whole expense of the administration.

In the accompanying comparative table this is shown for the Census years (1874 for 1872 for reasons already given), but there is a considerable variation in expenditure and receipts from year to year dependent on two factors in the administration of the Settlement Forest Department, which is the great source of cash revenue. The official forest year differs from the financial year, and the distance of Port Blair from the places to which the timber is supplied prevents payments from coinciding with the supplies in any given year as to forest produce.

Comparative Table of Cash Receipts and Expenditure in Rupees.

	1874.	1881.	1891.	1901.
Receipt—Total	2,71,895	3,26,035	4,83,153	5,70,997
Expenditure—Total . . .	10,89,321	14,96,513	12,87,308	17,34,265
Net cost of Settlement . .	8,17,426	11,70,478	8,04,155	11,63,268
Net cost per convict . . .	105·60	97·19	69·89	99·28

In the above Table the value of convict labour expended on local work and supplies is not included.

Cost of the Convict.—The net cash "cost of the convict" at any given period depends firstly on how far convict labour is employed on objects returning a cash profit, and secondly on the number of convicts permitted to hold tickets-of-leave and producing local supplies purchasable by Government at a far smaller cost than those procured from places outside the Settlement; *e.g.*, since 1891 very large jails and subsidiary buildings have been under construction by the orders of the Government of India and have absorbed labour that could otherwise have gone to forestry and other objects remunerative in cash, and the number of self-supporters has been greatly reduced by a reduction in the amount of jungle cleared annually. Both of these arrangements are disciplinary and go to show that the "cost of the convict" depends less on local administration than on general policy.

III.-History.

Origin and History of the Andaman System.—The Andaman Penal System is *sui generis*, has grown up on its own lines, and has been gradually adapted to the requirements of a Penal Settlement, covering officially an area of 473 square miles, of which 327 square miles are now occupied, containing grazing and arable lands, swamps, dense forests, large harbours and inlets of the sea, hills up to 1,500 feet, and small villages for the ticket-of-leave (self-supporter) convicts, ex-convicts and free persons, convict stations, workshops, and jails. This system has also been independent of, and was never at any time based on, the Indian prison system and has been continuously under development for about a hundred years. The fundamental principles on which the system is founded are now substantially what they were originally, and have stood the criticism, the repeated examination, and the modifications in detail of a century without material alteration. The classification of the convicts, the titles of those who are selected to assist in controlling the general body, the distinguishing marks on their costume, the modes of occupying them, and their local privileges are virtually now as they were at the beginning.

The Andaman Penal System is at root the former system of the Straits Settlements, thus: The first temporary Superintendent of the Andamans was Captain (afterwards General) Henry Man, who was generally instructed in January, 1858, by the Government of India as to the treatment of the convicts on the Straits Settlement lines and given his powers under the Mutineers Acts, XIV and XVII of 1857 (since repealed). General Man was trained in, and long Superintendent of, the Penal Settlements of the Straits. He was succeeded by Doctor J. P. Walker in March 1858, who drew up rules sanctioned by the Government of India and based on his instructions, which were identical with those given to General Man. These were followed by the Port Blair and Andamans Act, XXVII of 1861 (since repealed), and by modifications of the rules by successive Superintendents and by (afterwards Field-Marshal) Lord Napier of Magdala, as the result of an official inspection of the Settlement in 1863. In 1868 General Man became permanent Superintendent and embodied in the Andaman system the Straits Settlements Penal Regulations, which he brought with him, and thus brought the system still more closely into line with that of the Straits Settlements. General Man's modifications still colour almost every part of it. Sir Clive Bayley took General Man's rules and drafted out of them a formal Regulation in 1871. This draft was given to (afterwards Field-Marshal) Sir Donald Stewart for comment by the Viceroy, Lord Mayo, who took a great personal interest in the Andamans, and was subjected to the scrutiny of Mr. (Justice) Scarlett Campbell in 1872 and of (now Field-Marshal) Sir Henry Norman in 1874, both formally deputed to inspect the Andamans, in consultation with Sir Donald Stewart, then Chief Commissioner and Superintendent. Their joint labours resulted in the Andaman and Nicobar Regulation, 1874, and in the Governor-General in Council's Rules and the Chief Commissioner's Rules of the same year. In 1876 a new Andaman and Nicobar Regulation was drawn up, but the rules under the Regulation of 1874 were continued. It is these Rules *plus* the Superintendent's Bye-laws (Settlement Standing Orders) authorized thereby and modified from time to time by Government of India orders and by the Commission of Sir C. J. Lyall and Sir A. Lethbridge in 1890, that form the still growing Andaman Penal System of the present day.

The governing principles of the Andaman system are, therefore, those of the Straits Settlements system, *i.e.*, of the old Indian Penal Settlements system.

Sir Stamford Raffles.—The Indian Penal Settlements system was originally a new departure in the treatment of prisoners, its salient features being still those of the Andamans,—the employment of convicts, in any place desired, on any and every kind of labour necessary to a self-supporting community, their control by convicts selected from amongst themselves, permission to marry and settle down in the Penal Settlement after a given period ("self-supporter"). It arose thus: Indian convicts were first transported to Bencoolen in Sumatra in 1787 to develop that place, then under the Indian Government. At Bencoolen, the Lieutenant-Governor, Sir Stamford Raffles, drew up a despatch in 1818 to the Government, explaining the principles he had already successfully adopted for their management, and in 1823 he sent the Government a copy of

his Regulations. In 1825 Bencoolen was ceded to the Dutch and the convicts there were transferred to Penang and Singapore. Penang was first occupied by the English in 1785 and convicts were sent there in 1796. When the Bencoolen convicts arrived, they took with them the Regulations of Sir Stamford Raffles, and in 1827 on this basis were drawn up the "Penang Rules." Malacca was occupied in 1824 and convicts were sent there at once from Penang and shortly afterwards they, too, were placed under the Penang Rules. Singapore was founded by Sir Stamford Raffles himself in 1819 and in 1825 convicts arrived from Bencoolen and India and in 1826 from Penang. At Singapore at first the "Bencoolen Rules" and then the "Penang Rules of 1827" were enforced, with modifications, for many years, until the first formal Rules and Regulations for the management of Indian convicts were drawn up in 1845 by Colonel Butterworth, the Governor of Singapore, and were known as the "Butterworth Rules." These, with modifications by Major McNair, Superintendent of the convicts, made in 1858, were the Rules for the Singapore convicts. The Butterworth Rules were avowedly founded on the principles laid down by Sir Stamford Raffles in 1818 and on his Bencoolen Rules.

The formal title of the Butterworth Rules was the "Straits Settlements Rules and Regulations for the management of Indian convicts," and in the making and working them General Man, to whom it fell to start the Andaman Penal Settlement in 1858, took a leading part. He carried them with him to Moulmein and the Tenasserim Provinces, to which places Indian convicts were also transported, and when in 1868 he was appointed permanent Superintendent of the Andaman Penal Settlement it was the "Regulations of the Straits Settlement as used in the Tenasserim Provinces for the management of convicts" that he brought over and embodied in the rules and orders he found already existing. The direct unbroken descent of the present Andaman Penal System from the original Indian Penal System is, therefore, quite clear.

The intimate connection of the Andamans with the original Indian Penal System from the beginning is further illustrated by the fact that when in 1796 the old Andaman Settlement at Port Cornwallis was broken up, the convicts there were transferred to Penang.

On the basis that the Penal Settlement is not a prison, but a place for the detention of a certain class of prisoners only, *viz.*, transported convicts, the present Andaman system is practically worked on rules contained in the Andaman and Nicobar Manual, consisting of two parts:—(1) Rules and orders issued under legal authority, and (2) Administrative and Executive orders. The system has always rested on the Indian Prisoners Act and the Andaman and Nicobar Regulation.

The rules or orders having legal authority in the Andaman and Nicobar Manual, as they now stand, are—

(1) Rules of the Governor-General in Council for the management of transported convicts, under Section 34 of Act V of 1871 (Prisoners), bearing date 29th July 1874, and since modified by many orders of the Government of India.

(2) Subsidiary Rules of the Chief Commissioner with the sanction of the Governor-General in Council, under Section 18 of Andaman and Nicobar Regulation, 1874, dated 4th December 1874, and continued under Section 33, Andaman and Nicobar Regulation, III of 1876.

(3) Governor-General in Council's Rules for licenses to reside, under Section 26 of the Andaman and Nicobar Regulation, dated 30th December 1882.

(4) Bye-laws of the Superintendent [see Section 32 (*b*) Andaman and Nicobar Regulation, III of 1876, and Rule VI (7) of the Governor-General in Council's Rules for transported convicts, 1874]. These bye-laws are known as Settlement Standing Orders, and are included in the Manual and issued whenever necessary.

The Prisoners Act, 1874, has been repealed by the Prisoners Act (III) of 1900, and, though no rule-making power is conferred by the new Act in this connection, the present Rules of the Governor-General in Council and the Bye-laws referred to therein are still in force under the General Clauses Act, X of 1897, Section 24.

The Eighteenth Century Settlement.—The old Settlement at the Andamans, established by the well-known Marine Surveyor Archibald Blair in 1789, was not a Penal Settlement at all. It was a Settlement on the lines of several then in existence, *e.g.*, at Penang, Bencoolen, and so on, and was established under Lord Cornwallis, Governor-General, originally to put down piracy and the murder of shipwrecked crews. To it were sent incidentally convicts from India to help in its development, precisely as they were sent to Bencoolen and afterwards to Penang, Malacca, Singapur and Moulmein, and the Tenasserim Province.

Everything that Blair did was performed with ability, and his arrangements for establishing the Settlement in what he named Port Cornwallis (now Port Blair) were excellent, as were his selection of the site and his surveys of parts of the coast, several of which are still in use.

He established himself on Chatham Island where he built a wharf, had a clearing on Haddo, and cut a path through from Phœnix Bay to Navy Bay. In Phœnix Bay he built a small vessel, the *Union*, which he afterwards sold to the East India Company.

Many of the names about the harbour of Port Blair date back to his time. The *Viper* was his own vessel, the *Atalanta*, *Ariel*, *Crown*, *Perseverance*, and so on, were His Majesty's ships of the day.

The Settlement flourished under Blair, but unfortunately on the advice of Commodore Cornwallis, brother of the Governor-General, the site was changed for strategical reasons to North-East Harbour, now Port Cornwallis, where it flourished at first but afterwards carried on an existence rendered miserable from sickness. Here it was under Colonel Alexander Kyd, an Engineer Officer, and a man of considerable powers and resource.

On the abandonment of the Settlement in 1796, on account of sickness, it contained 270 convicts and 550 free Bengali settlers. The convicts were transferred to Penang and the settlers taken to Bengal.

After that the islands remained unoccupied by the Indian Government till 1858 when the present Penal Settlement was formed.

History of the Penal Settlement, a History of Official Development.—The history of the Penal Settlement is merely one of official development.

The Andaman Commission, Dr. F. J. Mouat and General H. Man.—In January 1858 the Andaman Commission came to examine the islands for a possible site for a Penal Settlement. It was composed of Dr. F. J. Mouat, Dr. C. R. Playfair, and Lieutenant J. H. Heathcote, I.N., and produced an exhaustive and practical report. They fixed on Blair's original Settlement in 1790, and the harbour he worked in was named Port Blair in his honour. At the same time Captain (afterwards General) H. Man, as an experienced manager of convicts, was sent to re-annex the islands and found the Settlement commencing at Chatham Island.

Dr. J. P. Walker.—In March 1858 Dr. J. P. Walker, an experienced Jail Superintendent, arrived and with four European officials and 733 convicts cleared Chatham and Ross Islands, and started clearings at Haddo and Atalanta Points. He fixed the head-quarters on Ross Island where they have been ever since. He worked under enormous difficulties and with great energy, and his inadequate staff induced him to be very severe. In addition to the natural difficulties of his position he had to contend with constant escapes and attempts at escape and repeated attacks from the Andamanese.

The Andaman Sebundy Corps.—At this time was raised for the protection of the Penal Settlement the last Sebundy Corps ever formed in India. They were not a success, and were abolished in 1861. The Sebundies, once ubiquitous all over India, were the forerunners and the official lineal ancestors of the modern Military Police.

Colonel J. C. Haughton.—In October 1859 Captain (afterwards Colonel) J. C. Haughton, still remembered with affection as Jân Hâtan in the Settlement, of the Moulmein Commission, succeeded him, and at once introduced milder measures. He was much worried with attacks from the Andamanese, but managed to commence friendly relations with them.

Andaman Tokens.—Colonel Haughton, in his isolation, had to face serious currency difficulties, and was obliged to issue first, redeemable MS card tokens as currency, and next, with the authority of Government of India, copper rupee tokens redeemable at the Local Treasury. In these for some years under certain conditions the self-supporter convicts were paid for produce to prevent bribery and the influx of too much cash. The system failed to have effect because both silver money and the tokens were current together and in 1870 the copper tokens were withdrawn, when it was found that 17,788 of those issued in ten years had not been returned to the Treasury for redemption. They have entirely disappeared, and are now extremely rare.

Transfer to Burma.—Up to Captain Haughton's time the Settlement was directly under the Government of India, but in 1861 it was ordered to be transferred to the Chief Commissionership of Burma, the transfer not actually taking place till April 1864.

Colonel R. C. Tytler.—In May 1862 Colonel R. C. Tytler succeeded, continued Colonel Haughton's mild policy and, effected a good deal of clearing, especially at Mount Harriett (named after Mrs. Tytler).

At this period the cultivated land was only 149 acres: 76 by self-supporters and 73 by Government. A path ran from the Aberdeen (Atalanta Point) to Haddo clearings, and a road was commenced from Aberdeen to Jangli Ghat. There was a pier at Ross and a 10 horse-power saw mill at Chatham.

Reverend H. Corbyn and Andamanese Friendly Relations.—In his time, with the help of Reverend H. Corbyn, a great deal was done in establishing friendly relations with the Andamanese, and the Andaman Home was started.

Lord Napier of Magdala's Reforms.—In October 1863 General Sir Robert Napier (afterwards Field-Marshal Lord Napier of Magdala) inspected the Settlement and wrote a Memorandum thereon, re-organising it; and much of what he instituted is still in force, especially in the arrangements for clothing, sanitation, buildings, and vegetable supplies. He also secured a grant for the Andamanese Home, still given, in recognition of Mr. Corbyn's services.

Up to that time 8,000 convicts had been sent down altogether, and the Settlement consisted of Ross, Chatham, and Viper Islands, and small clearings at Aberdeen, Haddo, Mitha Khari, Hope Town, and Mount Harriett. At his suggestion Colonel Tytler drove a road with Mr. J. N. Homfray's assistance through to Port Mouat from Homfray's Ghat, to Tytler's Ghat, and formed a clearing at Mount Augusta.

Colonel B. Ford.—In May 1864 Colonel Tytler gave place to Colonel B. Ford, who wrote the first Annual Report on the Settlement, 1864-1865, much on the lines still adopted, and it is from his time that records are clear and almost continuous. He started with 149 acres under cultivation and 3,294 convicts, and by 1867, when he was transferred, these figures had increased to 724 acres cleared and 353 cultivated, and 6,965 convicts. He commenced the building of Viper Jail.

Mr. J. N. Homfray's Management of the Andamanese.—He placed Mr. J. N. Homfray in charge of the Andamanese, whose generous and judicious treatment of them laid the foundation of the existing system of dealing with them, and made them largely friendly. He was, on and off, ten years in charge of them, learnt their language colloquially, and travelled considerably about their country. He also instituted the custom of using them to capture runaways and return them to the Settlement. Before his time their usual practice was to kill the runaways who escaped into the jungles.

Temporary Paper Money.—In 1867 Colonel Ford was so pressed for both silver and copper tokens that he had recourse to Colonel Haughton's plan, and issued redeemable card tokens while waiting for remittances.

Colonel Nelson Davies' Report.—In the same year Colonel Nelson Davies, Secretary to the Chief Commissioner, Burma, made an inspection of the Settlement, and wrote a long and, unfortunately, biassed Report against Colonel Ford's administration.

General H. Man.—In 1868 Colonel (afterwards General) H. Man, who had ten years previously founded the Settlement, took up the Administration and formally introduced the discipline and system of the Straits Settlements. His was the first formal Code of Rules and formed the foundation for the existing law and Rules of the Settlement in almost every part of them, even to the system of the controlling returns.

Colonel Man stayed on till March 1871, and afterwards in the late Sir W. W. Hunter's *Life of Lord Mayo* some cruel remarks were made on the state of the Settlement under him. As a matter of fact he did a great deal towards consolidating the system that has been so successfully pursued ever since.

By the end of his time the more or less completely cleared area reached 2,814 acres, and the cultivated area to 876 acres, showing how much was accomplished in this direction in what may be called the preliminary stage of the development of the Settlement. The number of the convicts in the Settlement reached to 8,373.

Retransfer of Settlement to Government of India.—In 1869 the Settlement was removed from the control of the Chief Commissioner, Burma, and placed again under the direct orders of Government of India, and in 1870 it was placed for judicial purposes under the High Court of Calcutta.

Nicobar Penal Settlement.—In the same year the Nicobar Penal Settlement was founded which continued till 1888.

Andaman Orphanage.—In 1870 the Andaman Orphanage was started and continued until 1896 when it was merged in the Andamanese Home by force of circumstances. In 1871 Captain Darwood had charge of the Andamanese for a short while, and was the first to use the aborigines to collect jungle produce for the Settlement.

Sir Donald Stewart—Lord Mayo's Reforms.—In 1871 General (afterwards Field-Marshal Sir Donald) Stewart became Superintendent to work up a scheme of reforms laid down by the Viceroy, Lord Mayo, who took a great personal interest in the Settlement. During that year Lord Mayo drew up a Note which has had a distinct effect on the existing organisation of Port Blair. He directed that special attention be paid to cultivation, produce of the self-supporters, cattle-raising, timber, and produce from the Andamanese: also to the substitution of troops for police as a reserve force and their regular relief, to an increase in the convict strength, and to the codifying of Colonel Man's Rules into formal Regulations.

Sir Donald Stewart's administration has markedly affected the Penal System ever since his time in very many aspects. In going through his correspondence one cannot help being struck with the influence of the principles and lines of action he laid down on the present working of Port Blair.

Lord Mayo's Murder.—In 1872 Lord Mayo visited the islands and, as is well known, was murdered by a convict on Hope Town Jetty at the foot of Mount Harriett on 8th February 1872.

Mr. Scarlett Campbell's Reforms.—In 1872 Mr. Justice Scarlett Campbell visited the Settlement to report on all points in Lord Mayo's Note in conjunction with General Stewart. This resulted in creating the existing form of the superior establishment, in placing the Settlement under the Home Department of the Government of India, and in laying down the principle of considering penality firstly, and development of resources secondly, in the administration of the Settlement.

Andaman and Nicobar Chief Commissionership.—In the same year the Chief Commissionership of the Andamans and Nicobars was created, and General Stewart became the first Chief Commissioner.

Sir Henry Norman's Reforms.—In 1874 General (now Field-Marshal Sir Henry) Norman visited the Settlement and his report in conjunction with General Stewart had a most marked effect on the Settlement System. It confirmed and improved Mr. Scarlett Campbell's Rules, brought in term convicts, gave life convicts a promise of release after 20—25 years' servitude with approved conduct,

provided for the personal security of officials, and created the existing system of guards and guard-ship. It resulted in the Andaman and Nicobar Regulation of 1874, and in placing the Settlement judicially under the Government of India direct, removing it from the jurisdiction of the Calcutta High Court.

In 1874 Mr. F. E. Tuson (now Deputy Superintendent) took charge of the Andamanese and introduced the free coming and going of the aborigines to the Home, and the existing system of providing an income for the Home from the work of the inmates in the jungles.

Mr. E. H. Man's Management of the Andamanese.—In 1875 Mr. E. H. Man (afterwards for many years Deputy Superintendent), since so well known for his anthropological and other studies, took charge of the Andamanese and held it, off and on, for about ten years. It is due to his efforts that the accurate and extended knowledge of the Andamanese and their languages and the almost universal friendly relations with them now existing are chiefly due. His accuracy of observation and record is beyond praise, and though it has been at times impugned in details, he is still a safer guide than his critics even where attacked.

General C. A. Barwell.—In 1875 also General C. A. Barwell succeeded General Stewart, and in the following year a new and improved Andaman and Nicobar Regulation (III of 1876) superseded the previous one and is still in force, and was followed by various special Rules and Orders which, with the Superintendent's own Bye-Laws (Settlement Standing Orders), were consolidated into the Andaman and Nicobar Handbook drafted by Captain (now General M.) Protheroe, then Deputy Superintendent.

It was at this time that epidemics began to destroy the Andamanese. In 1876 syphilis declared itself among them, said to have been traced to one Shera, the convict Jemadar in charge of the Home. This was followed by ophthalmia. In 1877 measles introduced itself disastrously and, with pneumonia and since then influenza, has, in combination with the general spread of syphilis, diminished the population to its present proportions.

Colonel T. Cadell, V.C.—In 1879 Colonel T. Cadell, V.C., succeeded General Barwell and held the administration for thirteen years until 1892, and naturally greatly influenced the Settlement. His efforts were chiefly directed towards agricultural and forest development and improved communications, for all of which he laid a solid foundation. In 1882 the present regular Forest Department was established.

Lyall-Lethbridge Commission.—In 1885 Sir Alexander Mackenzie visited the Settlement and recorded the many improvements effected and suggested others of detail, and in 1890 Sir Charles Lyall and Sir Alfred Lethbridge arrived as a formal Commission to investigate the Penal System. Their Report resulted in a good many changes, chiefly in the direction of increased penality and discipline, in the construction of very large jails, in the reduction of the number of term convicts, and in the separation of the 'free' and 'convict' districts. Its immediate effect has been to convert the Settlement from an almost purely agricultural institution into one largely industrial, in order to construct the building required mainly from local resources.

Andaman and Nicobar Handbook and Manual.—In 1886 the Andaman and Nicobar Handbook was redrafted as the Andaman and Nicobar Manual by Colonel W. B. Birch, Deputy Superintendent, and in that form the local law and administrative rules still exist.

Mr. M. V. Portman's Management of the Andamanese.—In 1879 Mr. M. V. Portman was first placed temporarily in charge of the Andamanese, which he held at intervals until 1888 and then almost continuously till his retirement in 1900. He continued Mr. Man's researches into the languages and ethnography of the people, performed a great deal of anthropometry and scientific photography, and founded a knowledge of the Little Andaman. His work is, however, unfortunately marred by too much captious and not always accurate criticism of others engaged in the same line of research.

In 1881 Mr. H. Godwin-Austen had charge of the Andamanese for a time and visited many distant places, confirming the friendly relations effected

by Mr. Man. In 1883 Mr. Portman established some friendly relations with the Önges of the Little Andaman, and in 1886 Mr. T. Metcalfe, while in charge, discovered the value of the Andamanese as pilots in their own waters.

From 1888, when Mr. Portman came into nearly continuous charge, he studied, so far as opportunity offered, the hostile Jarawa Tribe, but his accounts must be accepted with caution, especially his remarks on their timid character.

Colonel N. M. Horsford.—In 1892 Colonel N. M. Horsford succeeded Colonel Cadell, and early in 1894 was attacked and nearly murdered by a convict. He commenced the carrying out of the recommendations of the Lyall-Lethbridge Commission.

Colonel Sir Richard Temple.—In 1894 the present writer took over the Administration and has been chiefly engaged in carrying through the orders of the Government of India resulting from the Lyall-Lethbridge Commission, *i.e.*, in developing the disciplinary and labour organisation, the industrial capacities of the convicts, forestry, communications, and, to some extent, agricultural products. Also in the construction of the large jails then ordered and in the employment of machinery.

In 1895 Mr. J. P. Hewett visited and reported on the Settlement, confirming the details of the Lyall-Lethbridge Report.

In 1900 Mr. P. Vaux took charge of the Andamanese, and with Mr. C. G. Rogers, now in charge, greatly increased the knowledge of the Jarawas and their country. He was unfortunately killed in an encounter with them on 24th February 1902.

IV.—Language.

Urdu, the Local Vernacular.—The mother tongues of the population are as numerous as the divisions and districts of India and Burma from which they are derived, but the *lingua franca* of the Settlement is Urdu, spoken in every possible variety of corruption and with every variety of accent. All the convicts learn it to an extent sufficient for their daily wants and the understanding of orders and directions. It is also the vernacular of the local born, whatever their descent.

The small extent to which many absolute strangers to it, such as the Burmese, inhabitants of Madras, and so on, master it is one of the safeguards of the Settlement, as it makes it impossible for any general plot to be hatched. In barracks, in boats, and on works where men have to be congregated, every care is taken to split up nationalities, with the result that, except on matters of daily common concern, the convicts are unable to converse confidentially together.

Its Nature.—The Urdu of Port Blair is thus not only exceedingly corrupt from natural causes, but it is filled with technicalities arising out of local conditions and the special requirements of convict life. Even the vernacular of the local born is loaded with them. These technicalities are partly derived from English and are partly specialised applications to new uses of pure or corrupted Urdu words. As opportunity has arisen I have collected some of these and printed them from time to time in the *Indian Antiquary*.

The Numerals.—The most prominent grammatical characteristic of this dialect of Urdu appears in the numerals, which are everywhere Urdu, but are not spoken according to correct Urdu custom. Thus, the convicts and all dealing with them count up to 20 regularly, and then between the tens simply add the units, instead of using special terms, *e.g.*, a convict, whatever his nationality or mother-tongue, will give his number, say, 12,536, as *bārā hazār pānch sau tīs chhe*, twelve thousand five hundred thirty six. He would never say, even if born and bred in Hindustani proper, *bārā hazār pānch sau chhattīs*. The convict must be addressed in the same manner, or he will most probably misapprehend what is said.

Specimens.—The following notes taken from the *Indian Antiquary* will sufficiently show how the special dialect of Port Blair Urdu is developing.

The following words have been heard even in the mouths of Burmans unable to make themselves understood in Urdu :—

Bijan.—This means now a barrack for convicts as distinguished from a barrack for troops or police, though various corruptions of "barrack" are also used for that purpose. It is really

English in origin, and represents the word "division," the corruption having taken place on vulgar Urdu lines. Thus "*di*" has dropped out, *v* has become *b* and the *zh* sound of *si* has become *j*, quite according to custom. Originally the convicts were divided into "divisions," each of which slept in a barrack. Hence the present application of the term.

Tapu.—This means a convict "station." It is really good Urdu for an "island." Originally all the convict stations were situated on small islands in Port Blair Harbour. Hence its present application to any convict station, inland or on an island.

Sikshan.—This means now either the "sick list," or the Female Jail. It is the English word "section." Originally the major division of the convicts was into sections, of which No. XVII was the convalescent gang, the sick and unable to do any or full work. The women were of course all in the Female Section. Hence the present double application of the word, kept in existence no doubt in the first case owing to the likeness of "*sikshan*" to the familiar "*sik-man*" of the Native Army Hospitals. *Sattrā Bijan, i. e.,* XVIIth Division, is also in common use for "convalescent gang."

Waipar.—The first jail constructed in the Settlement was on Viper Island, so named after Blair's ship. It is now dwarfed by the great Cellular Jail on Atalanta Point, so named after a man-of-war of Blair's day, which is the Jail *par excellence*, much to be avoided in the eyes of the convicts, the other is simply *waipar*. Another mighty jail is being constructed at Minnie Bay (named after another by-gone gunboat), and it will be interesting to see what popular term will be applied to it. By the way, Goplakabang is already Gobang in common parlance and script, and the name is likely to have "no derivation" in days to come.

Dhobi.—A washerman, and *talash*, search, are pure Urdu, but they are two of the first words picked by Burmans and non-Indians, and it is curious to hear them in the midst of an otherwise purely Burmese sentence.

Peti Afsar, for "petty officer," is unquestionably referred by Native speakers to the *peti*, belt, they all wear, and not to the English word. I have heard them spoken of simply as *peti-wale*, the men who wear belts, though in ordinary Anglo-Indian slang *petiwala*, translated into "boxwallah," is the hawker who sells articles of female attire and familiar wants, and *pattiwala* exists for those familiar with the language for the belt-wearer, *i.e.*, the messenger or peon.

Total.—In common use among the convicts, who are being constantly counted for all sorts of reasons. Petty Officers are told off to count them in batches, and as each finishes his batch he brings up his "total." *Total karna*, to compare the totals.

Dipātmant for Department: means the Forest Department, that being the first separate department created at Port Blair.

Dipātmant Sahib.—Forest Officer. *Dipātmantwala*, a convict told off to work in the Forest Department.

Sher Sahib.—*Sher* shortened from "overseer" for its likeness to the common Indian word *sher*, a tiger. An European overseer of convicts.

Signal.—For signal=a semagram. There is an elaborate system of semagraph signals at Port Blair worked by the Military Police.

Tikat, tikatliv.—A ticket-of-leave, also its holder. *Tikatwala*, a man with a ticket-of-leave, a self-supporter. *Tikat* is also used for the wooden "neck-ticket" worn by labouring convicts.

Parmosh.—Promotion. This is in common use amongst the Military Police, and also amongst the convicts, who are constantly being transferred from class to class on "promotion."

Kilas, class.—The convicts are arranged in classes.

Sikmān, Sikamān.—Sick man, used for a convict when in hospital: hence for any human being on the "sick-list:" hence, again, for any Government animal on the "sick-list," *e.g.*, an elephant, pony, bullock.

Rel, rail, originally a railing, now any kind of hedge or fence.

Rashan, ration.—The labouring convicts are all rationed. *Rashan-met*, ration mate; *i.e.*, the convict told off to help the cooks to keep and distribute the rations.

Dudh-lain, lit., the Milk-lines, *i.e.*, a place where milch-cattle have once been kept. Two or more places are so named.

Lamba-lain (the Long Line), a well known long straggling village in the Northern District.

Namunaghar, lit. Pattern-house. The name of a village, a convict station and some quarries, because a sample (*namuna*) house (*ghar*) for convicts, according to which men on ticket-of-leave must build their huts, was here set up by the Government.

Nimak-bhatta, salt-pans.—More than one place is so called because of a former salt factory on the spot from sea water.

"Portland Cement" becomes *simin, simint* and *sirmit*.

"Mess, mess-house" becomes *messcott* in petitions, being a mixture of Eng. "mess" and Hind. *kot*, house.

Kwangtung, the name of a local ship, becomes *Kultin*.

Bis, the Hindustani word for "twenty" is used by some of the convicts in giving their numbers; thus, when asked his name and *number*, a man will reply: "Bis 172." By this he means "No. 172B." A good many years ago the numbering of the convicts was recommenced from the beginning and the second series were distinguished by the English letter B.

Among building terms the following are commonly in use: *Halpilet* for wall plate; *batan* for batten; *kinposh* for kingpost; *kirnis* for screen.

Hangling.—My kitchen lately required some repairs to the roof, and as these were being delayed I made some enquiries from the cook, and received the following reply: "*kuchh nahin*

hua; hangling abhi nahin aya:" nothing has been done; the angle iron has not yet come. I have also heard *hingain* used, which has a much more Urdu sound.

Motrpha.—This now practically obsolete term still appears in the annual budget for the Andaman Islands. *E. g.*, in the Revenue items of the Estimate for the year 1900-01 is:—"*Moturpa* (house tax) collections." The old *moturpha, moturfa* of the Madras Revenue was not a tax on houses but on professions and trades. It was abolished finally quite thirty years ago. The vernacular word is *muhtarafa:* Ar. *hirfa,* a handicraft.

Many of the existing place names about Port Blair are English, and the corruptions thereof by the convicts and their native guards are interesting, showing that striving after a meaning which is so prolific of verbal corruptions all over the world. *E. g.*—

Mount Harriett	becomes	Mohan Ret.
Perseverance Point	„	Parasu Pet and Parson Pet.
Shore Point	„	Suwar Pet.
Navy Bay	„	Nabbi Beg.
Phœnix Bay	„	Pinik Beg.
Barwell Ghat	„	Balu Ghat.

Harriett was the name of the wife of Colonel Tytler, a former Superintendent Perseverance and Phœnix were the names of Royal Ships in Blair's day. Shore Point is named after Sir John Shore (Lord Teignmouth), Governor-General. General Barwell was a former Chief Commissioner. There is also a large village called Anikhet (now often converted into Ranikhet), a conscious pun on the name of a daughter of a former Chief Commissioner, who was named Annie Kate. The largest steam launch in the harbour is named *The Belle* after a daughter of another former Chief Commissioner, which has proved an unfortunate name, for the vessel is invariably called by the Natives "*Belli Jahaz.*"

The station of Elephant Point has been translated into *Hathi Tapu* and *Hathi Ghat.* The stations of Navy Bay, Dundas Point, South Point, and Phoenix Bay are all also frequently indiscriminately called *Chuna Bhatta,* because there is now, or has been at some former time, a lime-kiln at these spots. Convicts never forget a place at which there has been a lime-kiln: they hate the work so. So, also, there is a village called Chauldari (for *shuldari*) in the Southern District after a former convict camp at the spot; but the station of Middle Point, a long way off in the Northern District, is also commonly known to the convicts as Chauldari for the same reason.

Sometimes the native names for places are merely corruptions of the English words, without any effort at a meaning; *e. g.*, *Ubten* for Hope Town where Lord Mayo was murdered, and *Hardo* for Haddo. Port Blair itself is always *Pot Biler* and Port Mouat always *Potmot.*

APPENDIX A.

SIR STAMFORD RAFFLES' LETTER FROM BENCOOLEN IN 1818, TO THE GOVERNMENT OF INDIA.

"But there is another class of people that call for immediate consideration. Since 1787 a number of persons have been transported to this place from Bengal for various crimes of which they have been found guilty.

The object of the punishment as far as it affects the parties must be the reclaiming them from their bad habits, but I much question whether the practice hitherto pursued has been productive of that effect. This I apprehend to be, in a great measure, in consequence of sufficient discrimination and encouragement not having been shown in favour of those most inclined to amendment, and perhaps to the want of a discretionary power in the chief authority to remit a portion of the punishment and disgrace which is at present the common lot of all. It frequently happens that men of notoriously bad conduct are liberated at the expiration of a limited period of transportation, whilst others, whose general conduct is perhaps unexceptional, are doomed to servitude till the end of their lives.

As coercive measures are not likely to be attended with success, I conceive that some advantage would arise from affording inducements to good conduct by holding out the prospect of again becoming useful members of society, and freeing themselves from the disabilities under which they labour. There are at present about 500 of these unfortunate people. However just the original sentence may have been, the crimes and characters of so numerous a body must necessarily be very unequal, and it is desirable that some discrimination should be exerted in favour of those who show the disposition to redeem their character. I would suggest the propriety of the chief authority being vested with a discretionary power of freeing such men as conduct themselves well from the obligation of service, and permitting them to settle in the place and resume the privileges of citizenship. The prospect of recovering their characters, of freeing themselves from their present disabilities, and the privileges of employing their industry for their own advantage would become an object of ambition, and supply a stimulus to exertion and good conduct which is at present wanting.

It rarely happens that any of those transported have any desire to leave the country; they form connections in the place, and find so many inducements to remain, that to be sent away is considered by most a severe punishment.

While a convict remains unmarried and kept to daily labour very little confidence can be placed in him, and his services are rendered with so much tardiness and dissatisfaction that they are of little or no value; but he no sooner marries and forms a small settlement than he becomes a kind of colonist, and if allowed to follow his inclinations he seldom feels inclined to return to his native country.

I propose to divide them into three classes. The first class to be allowed to give evidence in court, and permitted to settle on land secured to them and their children; but no one to be admitted to this class until he has been resident in Bencoolen three years. The second class to be employed in ordinary labour. The third class, or men of abandoned and profligate character, to be kept to the harder kinds of labour, and confined at night.

In cases of particular good conduct a prospect may be held out of emancipating deserving convicts from further obligation of services on condition of their supporting themselves and not quitting the Settlement.

Upon the abstract question of the advantage of this arrangement I believe there will be little difference of opinion The advantage of holding out an adequate motive of exertion is sufficiently obvious, and here it would have the double tendency of diminishing the bad characters and of increasing that of useful and industrious settlers, thereby facilitating the general police of the country and diminishing the expenses of the Company."

Sir Stamford Raffles' letter, dated 20th December 1823, to the Government of India.

"As the management of convicts ought to be a subject of consideration, I send you a copy of he regulations established for those of this place. The convicts now at Bencoolen amount to 800 or 900, and the number is gradually increasing. They are natives of Bengal and Madras, that is to say, of those presidencies. The arrangement has been brought about gradually, but the system now appears complete, and, as far as we have yet gone, has been attended with the best effects. I have entrusted Mr. John Hull with the superintending of the department, and he feels great pleasure and satisfaction in the general improvement of this class of people."

CHAPTER III.

ETHNOGRAPHY.

I.—The Convict Body.—Artificial Conditions of Convict Life—General Description of the Convicts—Main General Facts regarding them—Age—Education—Religions—Former Occupations—Civil Condition of the Women—Maintenance of Caste—Administrative Divisions: Economic: Commissariat: Financial—Disciplinary Gangs—"D" Ticket—Connected Convicts—Artificer Corps—Character of the Convict—Offences Causing Transportation—Effect of the Penal System on Character—Liability to Violent Crime—Effect of Season on Murderous Tendency—General Nature of Offences of the Convicts.—Insanity among the Convicts.

II.—The Labouring Convicts.—The Nature of the Labour—Labour Statistics—The Workshops—The Marine Department—The Forest Department—The Female Jail.

III.—The Self-supporters.—Distribution—Occupations—Value as Agriculturists.

IV.—Sickness and Mortality among the Convicts.—Artificial Nature of the Sickness and Mortality Returns—Effect of Rainfall—Health Cycles—Causes of Variation in Annual Returns—Prevalent Diseases—Causes governing Annual Returns—Length of Residence—Personal Character—Mode of Cooking—Nature of Labour—Place of Residence—Results of an Enquiry in 1867.

V.—The Free Residents.—The Nature of the Free Population—Divisions—The "Local Born" (Convicts' Descendants)—Convict Marriages—Birth and Growth of Caste among the Convicts' Descendants—Hindu Marriage Custom among the Convicts' Descendants—Character of the Convicts' Descendants—Occupations—Education.

Appendix A.—Daily Labour Statement for the Dry Season of 1901.

Appendix B.—Labour Statement, Phœnix Bay Workshops.

Appendix C.—Female Jail Labour Statement.

Appendix D.—Results of Enquiry into the Caste History of the "Local Born."

I.—The Convict Body.

Artificial Conditions of Convict Life.—The conditions under which convicts live are so artificial and so entirely unlike those of an ordinary population that it is impossible to describe them on the usual lines. There are hardly any natural movements in any direction to observe and report. This section of this Report aims therefore at a description of the social state of the convicts and their descendants in the regulated conditions of life imposed on them from outside.

Description of the Convicts.—The persons transported to Port Blair are sent by the Government of India and are murderers, who for some reason have escaped the death penalty, and the perpetrators of the more heinous offences against the person and property. The sentences they have to undergo are chiefly for life, but a number, varying from a very few to a considerable amount, with long term sentences, are also sent from time to time.

Except under special circumstances, convicts are not received under 18 years of age nor over 45 years; nor unless they are medically fit for hard labour previous to transportation. Youths between 18 and 20 are kept in the Boys' Gang under special conditions. Girls are occasionally received of 16 or thereabouts, but as all women locally unmarried are kept in the Female Jail, a large enclosure consisting of separate sleeping wards and worksheds, there are no special rules for them.

All these points affect the convict population in almost every aspect.

The gross number of convicts sent up to the date of the Census was 49,592

and the returns and statistics are so arranged that the full life history of every one of them while in the Settlement is immediately forthcoming.

Main General Facts regarding them.—The accompanying Table gives a view of the main general facts relating to the convicts as a body for the Census years (with 1874 for 1872).

GENERAL CONVICT STATISTICS FOR THE CENSUS YEARS.

Particulars.		1874.	1881.	1891.	1901.
Number of convicts received	Male	603	1,102	869	1,232
	Female	97	100	52	80
Number of life convicts	Male	6,727	7,668	8,033	9,204
	Female	836	1,122	861	714
Number of term convicts	Male	6	2,657	2,840	2,037
	Female	...	5	4	19
Number of convicts released	Male	355	64	685	215
	Female	4	3	73	32
Admissions into hospital	Male	11,192	25,531	22,328	22,319*
	Female	842	827	1,094	1,290
Number died	Male	107	534	435	433
	Female	9	18	17	17
Number escaped and not recaptured	Male	24	15	14	4
	Female	...	...	...	...
Number executed	Male	6	13	12	6
	Female	...	...	...	...

* All medical statistics are for 1900.

In the above Table the "escaped" are those who have not been heard of again. As a matter of fact such unfortunates, as a rule, die in the jungles or are drowned at sea. Very rarely does a convict escape to the mainland.

Age.—The ages of the convicts, while in the Settlement, depend on their ages at conviction and the length of sentences, none, except under special circumstances, being now received under 18, as above stated. With this information as a guide the Age Table may be stated as under:—

PORT BLAIR PENAL SETTLEMENT.

AGES OF THE CONVICTS.

Year.	1 to 16	16 to 40	40 to 60	Over 60
1874	20	4,582	1,991	476
1881	...	8,730	2,180	542
1891	...	8,815	2,421	502
1901	...	7,264	3,945	635

Education.—The state of education of those received into the Penal Settlement as convicts is necessarily very low and seems to remain at a pretty constant figure.

State of Education of Convicts received during the year into the Penal Settlement.

Year.	Total received.		Cannot read and write.		Read and write a little.		Can read and write.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1874 . .	603	97	533	96	60	1	10	...
1881 . .	1,102	100	893	91	87	2	122	7
1891 . .	869	52	696	51	64	1	109	...
1901 . .	1,232	80	894	75	78	...	260	5

Religion.—The religions professed by the convicts are as under. The Buddhists are shown with "others," as separate statistics of Buddhists were not kept till after 1886, when they began to be sent in large numbers in consequence of the disturbances following on the Third Burma War. In the Census of 1901, the "others" numbered 93.

Religions of the Convicts.

Year.	Christian.		Mahomedan.		Hindu.		Buddhist and others.	
	Male.	Female.	Male	Female.	Male.	Female.	Male.	Female.
18 74 . .	22	2	2103	212	4331	594	277	28
1881 . .	50	4	2561	291	7549	819	165	13
1891 . .	38	2	2814	269	6551	575	1470	19
1901 . .	40	2	2840	257	6447	456	1914	18

Former Occupation.—The former occupations of the convicts are always a matter of interest, but it is never easy to ascertain this point accurately and the Table given below is not satisfactory in form. It is, however, the only one available for purposes of comparing the Census years.

Former Occupations of the Convicts.

Year.	Agriculture.	Labour.	Artificers.	Domestic service.	Weavers.	Shop-keepers.	Government servants.	Boatmen and fishermen.
1874 . .	3,587	667	186	549	...	405	525	...
1881 . .	4,879	1,234	416	455	164	320	96	153
1891 . .	5,840	1,124	686	687	490	395	211	227
1901 . .	6,580	1,254	631	659	505	370	229	186

This Table leaves too large a margin for "others or no occupation," *e.g.*, 1874, 814; 1881, 2,608; 1891, 1,313; 1901, 827.

Civil Condition of the Women.—The civil condition of the women before arrival is merely stated as "married" or "unmarried." The Table is as under:—

PORT BLAIR PENAL SETTLEMENT.

Civil Condition of the Women before Conviction.

Year.	Married.	Unmarried.
1874	817	19
1881	1,118	9
1891	855	10
1901	725	8

Maintenance of Caste.—As the maintenance of caste among natives of India involves the maintenance of respectability, and as the aim of the Penal System is the resuscitation of respectability among the convicts, nothing is permitted that would tend to destroy the caste feeling among them. The tendency is always with them to "raise" their caste wherever that is possible, and occasionally some crafty scoundrel is convicted of illegitimate association with fellow Hindus in regard to caste. Two Mehtars have recently been detected in successfully managing this: one, a self-supporter, masqueraded for years in his village as a Rajput (Rajbansi), and another for years was cook to a respectable Hindu free family on the ground of being a Brahman. It is also not at all uncommon for low caste ex-convict settlers, with a view to raising their social status, to adopt a mode of dress and life, which would be quite inadmissible if they were to return to their native villages in India. In Port Blair, as elsewhere, the great resort of those desiring to raise their social status is the adoption of Muhammadanism. On the other hand, instances have occurred, in which men who were not so by caste, have volunteered to become Mehtars, debasing their social status in order to adopt what they have regarded as a less arduous mode of life than daily cooly labour.

Administrative Divisions—Economic—Commissariat—Financial.—The convicts, while in the Settlement, are divided up in several ways. The great economic division for both sexes is into labouring convicts and self-supporters; the former perform all the labour of the place, skilled and unskilled, and the latter are chiefly engaged in agriculture and food supplies. The Commissariat division is into rationed and not rationed: in the former class are nearly all the labouring convicts and in the latter all the self-supporters and some of the labouring convicts. The financial division is into those with and those without allowances with numerous sub-divisions, all according to scale of allowances. For this purpose the convicts are divided into classes as shown in the annexed Table:—

PORT BLAIR PENAL SETTLEMENT.

FINANCIAL DIVISION.

Table of Classes of Convicts.

I.—Supervision.
- (*a*) Jemadar.
- (*b*) 1st Tindal.
- (*c*) 2nd Tindal.
- (*d*) 1st Peon.
- (*e*) 2nd Peon.

II.—Monthly Allowances.
- (*a*) 1st Class—
  - (i) R2
  - (ii) R1-12-0
  - (iii) R1-8-0
  - (iv) R1-4-0
  - (v) Re. 1-0-0
- (*b*) 2nd Class—
  - (i) A: Re. 1-0-0
  - (ii) B: Re. 0-12-0
  - (iii) New: Re. 0-12-0

III.—Invalids.
- (*c*) 1st Class—
  - (i) Re. 0-12-0
  - (ii) New Re. 0-8-0
  - (iii) A: Re. 0-8-0
  - (iv) B: Re. 0-4-0
  - (v) New: R0-4-0

IV.—Without allowances.
- (*a*) 3rd Class—
- (*b*) Chaingang.
- (*c*) Hospital Ward servants.
- (*d*) Domestic servants.
- (*e*) Self-supporters.

V.—On Monthly Pay.
- (*a*) Hospital Compounders—
  - (i) R6-4-0
  - (ii) R8-4-0
  - (iii) R10-0-0
- (*b*) Self-supporter Compounders—
  - (i) R6-4-0
  - (ii) R8-4-0
  - (ii) R10-0-0
- (*c*) Self-supporter Government servants—
  - (i) R6-0-0
  - (ii) R7-0-0
  - (iii) R8-0-0
  - (iv) R9-0-0
  - (v) R10-0-0
  - (vi) R11-0-0
  - (vii) R12-0-0
  - (viii) R14-0-0

VI.—Females.
- (*a*) Supervision—
  - (i) Jemadarni.
  - (ii) Tindelan.
  - (iii) Daffadarni.
- (*b*) Labouring—
  - (i) 1st Class A.
  - (ii) 1st Class B.
  - (iii) 2nd Class.
  - (iv) Refractory Ward.
  - (v) Hospital ward servant.
- (*c*) Self-supporters.

Disciplinary Gangs.—There are also disciplinary gangs all involving degradation either on account of bad character on arrival or while in the Settlement :—

DISCIPLINARY GANGS.

Cellular Jail Prisoner.
Viper Jail Prisoner.
Viper Island Disciplinary.
Chatham Island Disciplinary.
Chaingang.
Habitual Criminal Gang.
Unnatural Crime Gang.
" D " (for ' doubtful ') ticket men.

" D " Ticket.—The " D " ticket comes about in this way. Prisoners in the 3rd class are obliged to wear wooden neck tickets, which tell the expert all about them. On the ticket is the convict's number, the section of the Indian Penal Code under which he was convicted, the date of his sentence, the date his release is due—if of ' doubtful ' character it has a D ; if one of a gang of criminals in India it has a star, and the presence or absence of A shows the class of ration; if a life-prisoner it has L.

Connected Convicts.—There is a class of " connected convicts." Prisoners convicted in the same case, marked by a star on the neck ticket, are all specially noted and never kept in the same station or working gang, under special arrangements sometimes involving considerable care and organisation, as when a large and dangerous gang of dacoits is broken up in India and arrives in Port Blair at times even 40 strong.

Artificer Corps.—There is yet another division of the convicts going back historically long beyond the foundation of Port Blair in the Indian Penal Settlement System. Those men who were 'artisans before conviction and men found to be capable after arrival are formed into the Artificer Corps—craftsmen, learners, and coolies. This corps is an organisation apart, has special petty privileges and petty officers of its own under the title of " Foreman Petty Officer," who are artisans that have to labour with their own hands and also to supervise the work of small gangs and teach learners.

Character of the Convict—Offences causing Transportation.—The basis on which to build observations on the character of the convicts as a body is an examination of the offences of which they have been convicted before arrival. The following Table shows that murder and the heinous offences against the person, dacoity (gang robbery with murder or preparation for murder), and the other heinous offences against property make up nearly the whole total, all the other serious offences together accounting for but a few arrivals.

Offences committed by the Convicts before arrival in the Penal Settlement.

Year.	Murder.	Against the person.	Dacoity.	Against property.	Others.	
1874	5,575	107	1,262	325	298	
1881	7,445	158	2,444	1,012	381	
1891	7,946	308	1,711	1,337	416	
1901	7,795	817	2,262	904	196	

Effect of the Penal System on Character.—The general character thus comes out clearly : violent and intolerant of restraint, and that being the case, it is of value to see how such a character shows itself under subjection to continuous severe restraint. Some careful statistics, from such clear evidence as

was then available, were made out in 1895 in Port Blair and checked by the Government of India, comparing safety of life and limb among the convicts with that in certain provinces in India under ordinary circumstances. Though the difference is enormous when stated in the chances of violence per ten thousand of population per annum, yet it comes to this that the chances of violence per annum per cent. of population in Port Blair is only ·154 on the basis of 1894, a worse year than usual for violent crime.

Comparative Statement of crimes affecting life in the Penal Settlement and some parts of India.

Province.	Year.	Population in 1891.	Number of crimes.	Rate per 10,000 of population.
Assam	1894	5,435,243	63	·12
Hyderabad Assigned Districts	1894	11,537,040	84	·07
Burma	1894	7,608,532	89	·12
Madras	1893	39,331,062	791	·20
Port Blair . . .	1894	14,231	22	15·45

Liability to Violent Crime.—To test the liability of a population, five-sixths of whom are murderers and dacoits, to again commit murder in the conditions of their life at Port Blair, *i.e.*, under continuous restraint without ill-treatment, a series of tables were prepared by Mr. F. E. Tuson, Superintendent of Census Operations, extending over the ten years, 1890—1899.

PORT BLAIR PENAL SETTLEMENT.

Cases of violent crime during 1890-99.

Year.	No. of cases.	Murder.			Attempt to murder.			Total number of persons.
		Convicts' descendant.	Self-supporter convict.	Labouring convict.	Convicts' descendant.	Self-supporter convict.	Labouring convict.	
1890-91	12	3	6	...	...	1	2	12
1891-92	10	...	2	4	...	3	...	9
1892-93	15	1	5	11	...	...	1	18
1893-94	10	...	2	5	...	...	4	11
1894-95	16	2	6	9	...	...	...	17
1895-96	7	...	3	5	...	...	...	8
1896-97	12	4	2	7	1	...	1	15
1897-98	11	3	5	6	...	...	4	18
1898-99	6	...	...	3	...	...	4	7
1899-1900	10	...	3	6	1	1	...	11
Total .	109	13	34	56	2	5	16	126

The annual average of *convicts* that have committed or attempted murder in this interval has been **11**, out of an average number of 9,233 murderers and dacoits present at a time in the Settlement. This gives a rate of ·12 per cent. per annum and is a test of the effect of the Port Blair Penal System in restraining violence.

The provinces, from which the persons who committed and attempted the murders in the ten years came, were as in the following Table, which, with the previous Table given above, is evidence of the existence of that *perfervidum ingenium* in the natives of Madras, long ago commented on by those who have known them well.

MURDERS IN THE PENAL SETTLEMENT, 1890—1900.

The Provinces from which the Murderers came.

Provinces.	No. of murderers in ten years.	Average population * present in th Settlement.	Average number of murderers per mille of population per annum.
Bengal and Assam, with Native States	26	1,768	1·47
Madras Presidency, with Native States	24	1,161	2·06
Bombay, Central Provinces, and Central India, with Native States	17	2,273	·74
United Provinces and Rajputana, with Native States	44	3,670	1·19
Panjab and North-West Frontier, with Native States	8	924	·86
Burma with Native States	7	2,414	·29

* Includes prisoners and prisoners' descendants only.

The following Table giving the locality of the murders shows that they have been equally distributed all over the Settlement in reference to population and that neither the nature of the work nor the discipline enforced has had any effect on the tendency to murder. The large "stations" are Ross, Viper, Aberdeen, Haddo, and Phœnix Bay. Viper is the location of the worst characters. The only place where murders have been disproprotionate to population is the village of Baghelsingpura.

MURDERS IN THE PENAL SETTLEMENT, 1890—1900.

Villages and Stations at which the Crimes took place.

Stations or villages.	No.	Stations or villages.	No.
Ross	11	Garacherama	3
Aberdeen	8	Dundas Point	1
Haddo	6	Hobdaypur	2
Chatham	2	Viper	15
Phœnix Bay	5	Brookesabad	4
Navy Bay	2	Bumlitan	3
Mount Harriett	2	Mithakhari	2
Hope Town	1	Tusonabad	2
Bamboo Flat	3	Manglutan	2
Goplakabang	1	Port Mouat	2
North Corbyn's Cove	2	Cadellganj	4
Namunaghar	2	Lamba Line	2
Anikhet	1	Minnie Bay	1
Janglighat	2	Nayagaon	
Dudh Line	1	Pahargaon	2
Protheroepur	3	Templeganj	2
Baghelsingpura	7		
	59		50

TOTAL 109

The convicts confine their murderous assaults to each other, very rarely indeed attack a free official, and have only once as yet committed a violent assault on a member of any free official's family. The motives for their assaults are similar to those disclosed in similar cases among an ordinary population.

MURDERS IN PORT BLAIR PENAL SETTLEMENT, 1890—1900.

Motives for committing the crimes.

Motive.	No. of cases.		Motive.	No. of cases.
Revenge	65		Melancholy	4
Jealousy	23		Unnatural crime	4
Robbery	2	10	No apparent motive	3
Greed of money	8			
	98			11
		TOTAL 109		

The murderous assaults are usually committed quite suddenly on opportunity arising, which fact is partly shown by the weapons that have been used. As the convicts perform the whole labour necessary in the Settlement they must, during working hours, be provided with every kind of tool, and in fact they have, in their assaults, used the instruments that happened to be to hand.

MURDERS COMMITTED IN PORT BLAIR PENAL SETTLEMENT, 1890—1900.

Weapons used in committing the crimes.

Detail.	No.	Detail.	No.
Adze	2	Iron-stave	2
Arrow	2	Knife	11
Axe	20	Mallet	1
Batten	1	Mill-stone	1
Bill-hook	1	Pestle	4
Board	1	Pick-axe	1
Chopper	25	Poison	5
Crow-bar	2	Razor	2
Cudgel	4	Sickle	3
Gun	1	Stick	6
Hammer	3	Stone	1
Hand-hoe	1	Not known	2
Hoe	7		
	70		39
		TOTAL 109	

ABSTRACT.

Cutting instruments	73
Shooting do.	3
Striking do.	23
Missiles	3
Poison	5
Not known	2
TOTAL	109

Effect of Season on Murderous tendency.—The last point to notice about these murders is one often stated locally, *viz.*, that climate and the season have much to say to their frequency. This is partly, though not at all decisively, brought out by the accompanying Table. The hottest and most trying month is April, with March and May following it. The wettest and most depressing months are June to September. June is often the most feverish (malarial fever). October is hot. November to February is the healthiest and pleasantest time of year. With these facts we find the relative inclination to murder to have been as follows month by month.

MURDERS IN PORT BLAIR PENAL SETTLEMENT, 1890—1900.

Months of the year in which the crimes took place.

PERIOD OF YEAR. Months.	No.	PERIOD OF YEAR. Months.	No.
January	8	July	16
February	6	August	12
March	9	September	12
April	12	October	9
May	5	November	6
June	5	December	9
	45		64
	TOTAL . 109		

General Nature of Offences of Convicts.—As to general offences and rebellion against discipline on the part of the convicts and the methods employed of putting them down, the following table is only some sort of guide. It shows, however, the gradual increase in the application of discipline that has been steadily kept in view.

Year.	OFFENCES.		PUNISHMENTS.		OTHER PUNISHMENTS.									
	Against the Indian Penal Code.	Against convict discipline.	Executed for murder.		Extra imprisonment.		Corporal with other.	Corporal simple.		Chaingang.	Jail.		Minor.	
			Male.	Female.	Male.	Female.		10 stripes.	10 to 20 stripes.		Male.	Female.	Male.	Female.
1874	No data available.													
1881	414	1,321	11	...	17	...	269	264	67	55	10	...	977	65
1891	454	2,005	12	...	25	...	197	120	54	291	77	62	1,406	218
1901	299	3,290	6	...	22	...	47	31	21	676	138	8	2,505	135

Insanity among the Convicts.—The enquiry into the offences committed by convicts goes to show the general sanity of the convict class, as they are exactly such as might be expected of a violent and by nature an ill-disciplined description of mankind subjected to discipline—such as might be expected indeed in the same conditions of life of any body of human beings with the same characteristics, who have not been convicted of heinous crime and are regarded as sane.

The amount of actual present insanity among the convicts is shown in the accompanying statement, from which it will be seen that the overwhelming cause of insanity is mania.

Types of Insanity in the Lunatic Ward, Haddo.

Type.	Total number.	Admitted in 1901.	Admitted in 1902 (10 months.)
Mania	122	10	11
Melancholia	14	10	3
Dementia	4	...	...
Epilepsy	4	3	...
Effects of ganja (hemp) . .	10	2	...
Effects of opium . . .	1	...	1
Sequelæ of fever, etc. . .	...	1	...
	155	26	15

II.—The Labouring Convicts.

The Nature of the Labour.—The labouring convicts provide the whole labour of the community, and it is necessary to carefully allot the work daily so that it may be all done economically. There is an unlimited variety of work, as can be seen from the following list of objects on which the daily labour is expended:—Forestry, reclamation, cultivation, fishing, cooking, making domestic utensils, breeding and tending animals and poultry, fuel, salt, porterage by land and sea, ship-building, house-building, furniture, joinery, metal work, carpentry, masonry, stone-work, quarrying, road-making, earth-work, pottery, lime, bricks, sawing, plumbing, glazing, painting, rope-making, basket-work, tanning, spinning, weaving clothing, driving machinery of many kinds and other superior work, signalling, tide-gauging, designing, carving, metal-hammering, electric-lighting, clerical work and accounting, compounding, statistics, book-binding, printing, domestic and messenger service, scavenging, cleaning, petty supervision. The machinery is large and important and some of the works are on a large scale. At Phœnix Bay the general and marine steam and hand workshops employ 687 men daily: at Dundas Point in the season 72,000 burnt bricks are turned out daily and some 6,000,000 in the whole season, and lately arrangements have been made there to turn out 20,000 daily throughout the year. On the Cellular Jail have been expended some 30,000,000 bricks. The direction and supervision of the labour is a difficult task, for very few experts are employed and but little raw material is purchased from outside. Practically the officials have to learn each trade and then teach it to their unpromising pupils, the convicts, about 3 per cent. only of whom have any previous knowledge of the work they have to be put to in the Settlement.

Labour Statistics.—The annexed Table showing the labour of the convicts is not very satisfactory being based on obsolete forms, but it is the only one available for comparison.

Comparative Table of Employments of the Convicts (annual daily average) for the Census years.

Year.	Supervising.	Commissariat.	Medical.	Marine.	Forest.	Cultivation.	Manufacture.	Cloth.	Otherwise: P. W., domestic service, coolies.
1874	566		No information.			190	150	415	4,577
1881	701	207	124	562	56	144	797	631	3,954
1891	688	186	203	744	438	562	941	242	4,083
1901	1,118	162	125	290	706	616	1,098	252	3,642

Since 1895 an improved half-yearly system of showing the labour performed from day to day, respectively in the dry and wet season, has been introduced, of which the following is an abstract for the dry season of 1901, giving a fair idea of the modes of life among the labouring convicts. Details will be found in Appendix A.

Employments of Labouring Convicts: Average during dry season of 1901.

Ineffective, excluding Departments, 1,539.		Departmental employ, 2,133.		Supervising Establishment (excluding Departments), 813.		Fixed Establishments, 2,489.	
Sick and weakly	1,065	Commissariat	220	Petty Officers	813	Boats	366
Lunatics	153	Marine	247			Private service	213
Lepers	34	Medical	269			Government service	169
In Jails	260	Forest	917			Station service	735
Others	27	Tea	333			Supplies	392
		Other Departments	147			Conservancy	115
						Cartage	327
						Others	172

Fixed works, 1,708.		Artificer Corps, 908.		Miscellaneous Labour, 589.		Females, 366.	
Workshops	429	Artificers	548	At disposal of officers for repairs	589	Jail labour	366
Quarries	117	Coolies	360				
Potteries	22						
Brickfields	690						
Jail buildings	450						

The Workshops.—In the Phœnix Bay Workshops there is a great variety of work performed, divided under the heads of supervision, general, machinery, wood, iron, leather, silver, brass, copper, tin, and there are besides attachedto the shops a Foundry, Tannery, and Lime-kiln. This is a department that is always growing and has already grown considerably since the Census. The whole of the outturn is absorbed locally and no export trade is set up in the shops. Details of the employments will be found in Appendix B.

The work done at Phœnix Bay has nearly all to be taught the convicts therein employed and is performed partly by hand and partly by machinery. By hand they are taught to make cane-work of all sorts, plain and fancy, rope-making, matting, fishing nets, and wire netting. They do painting and lettering of all descriptions. They repair boilers, pumps, machinery of all sorts, watches, and clocks. In iron, copper and tin they do fitting, tinning, and lamp-making; forging, hammering of all kinds. In brass and iron they do casting in large and small sizes, plain and ornamental, and fancy hammering. In wood they perform all sorts of carpentry, carriage-building, and carving, and in leather they make boots, shoes, harness, and belts. They tan leather and burn lime.

By machinery, in iron and brass, they perform punching, drilling, boring, shearing, planing, shaping, turning, welding, and screw-cutting. In wood they perform sawing, planing, tonguing, grooving, moulding, shaping, and turning, and in wheel-making they do the spoke-tenoning and mortising.

Machinery is continually being added, in order to reduce establishment which can go to forestry and agriculture, the two descriptions of employment which are best calculated to make the Settlement finally completely self-supporting. Machinery will make it industrially and forestry *plus* agriculture financially independent: points that are never lost sight of and control the labour distribution.

Marine Department.—The work of the Marine Department about Phœnix Bay is chiefly connected with the building, finding, and working of the steam

launches, barges, lighters, boats, and buoys maintained. The detail is in the Table following :—

PORT BLAIR PENAL SETTLEMENT.

Distribution of Marine Department Labour.

Head, Sub-head.	Sanctioned daily estimate.	
I. General —		
(1) Munshis	7	
(2) Firewood cutters	10	
(3) Coal	20	
		37
II. Builders —		
(1) Carpenters	149	
(2) Blacksmiths	14	
(3) Painters	7	
(4) Caulkers	20	
(5) Sawyers	14	
(6) Tailors	6	
(7) Leather workers	1	
		211
III. Decks and engines—		
(1) Lascars	20	
(2) Stokers	19	
		39
TOTAL MARINE DEPARTMENT		287

Forest Department.—The labour of the Forest Department is divided up into the extraction of timber and firewood, the construction of tramways, and the conversion of timber at the steam saw-mills on Chatham Island. In 1901 it employed 917 men thus :—

Timber extraction	387
Firewood extraction	342
Tramways	57
Saw mills	131
	917

This is a comparatively new department for utilising convict labour and is now the chief source of revenue in cash. Its growth may be thus illustrated :—

PORT BLAIR PENAL SETTLEMENT.

Earnings in cash of Convict labour in the Forest Department.

1874	Department did not exist.
1881	No information.
1891	R1,58,325.
1901	R2,77,886.

Female Jail.—In the Female Jail the women are employed practically on the supply of the clothing of the Settlement, but they do also everything else necessary for themselves, and the only two men allowed to work inside the jail are the hospital assistant and the jail carpenter. The detail of the employment will be found in Appendix C.

III.—SELF-SUPPORTERS.

Distribution.—The principle of distributing the self-supporters is to keep them in fixed villages in the "convict sub-divisions," but as a good many are taken into Government and private service, these have to live at the stations nearest their work and some are accommodated in villages in the "free

sub-divisions." This accounts for the apparent distribution of self-supporters all over the Settlement, as in the following Tables :—

General Distribution of Self-supporters.

	Adults.		Children.	
	Male.	Female.	Male.	Female.
Total Self-supporters in villages . .	1,453	331	214	189
Total Self-supporters at stations .	315	18	1	...
Gross Total of Self-supporters in the Settlement	1,768	349	215	189

This Table is instructive in another way as showing that to 1,768 men there are only 349 women and 404 children.

PORT BLAIR PENAL SETTLEMENT.

Table of Distribution of Self-supporting Convicts in 1901.

Head.	Adults.		Children.	
Sub-Head.	Male.	Female.	Male.	Female.
SCHEDULE A.				
Villages.				
Northern District.				
(1) Bamboo Flat .	81	21	10	18
(2) Stewart Ganj .	59	20	13	4
(3) Wimberley Ganj .	69	22	24	4
(4) Kadakachang .	30	11	7	5
(5) Mathra .	17	1	2	...
(6) Anikhet . .	149	36	9	20
(7) Bindraban . .	59	14	14	8
(8) Jangli Ghat . .	4	...	...	...
(9) Aberdeen . .	41	6	4	5
(10) South Point . .	21	7	1	6
(11) Dudh Line .	1	...	...	...
	531	138	84	70
SCHEDULE B.				
Stations.				
Northern District.				
(1) Ross . . .	92	9	...	...
(2) Chatham . .	10	...	...	...
(3) Hope Town . .	...	...	...	...
(4) Bamboo Flat .	3	1	1	...
(5) North Bay . .	...	...	...	...
(6) Stewart Ganj .	1	...	...	...
(7) Wimberley Ganj .	37	1	...	...
(8) Anikhet } Mathra } . .	34	...	...	...
(9) Phœnix Bay	25	...	...	...
(10) Haddo . .	22	...	...	...
(11) Aberdeen .	31	6	...	...
(12) Mount Harriett .	7	...	...	...
(13) South Point .	...	...	...	...
	262	17	1	...

Head.	Adults.		Children.	
Sub-Head.	Male.	Female.	Male.	Female.
SCHEDULE A.				
Villages.				
Southern District.				
(1) Lamba Line . .	7	1	3	3
(2) Austenabad .	2	1	2	1
(3) Protheroepore .	7	2	1	1
(4) Pahargaon . .	2	...	...	...
(5) School Line .	3	1	...	...
(6) Garacherama .	12	4	2	2
(7) Birch Ganj . .	1	...	...	...
(8) Bumlitan . .	33	4	1	...
(9) Taylerabad . .	18	2	1	1
(10) Bhagelsingpura .	29	2	2	2
(11) Manglutan . .	36	11	6	7
(12) Homfray Ganj .	27	5	6	5
(13) Dhani Khari .	38	9	3	4
(14) Chauldhari . .	59	16	13	10
(15) Port Mouat . .	44	15	4	5
(16) Ograbaraij . .	59	16	4	5
(17) Mitha Khari .	73	15	12	13
(18) Hobdaypur . .	55	13	10	11
(19) Manpur . . .	51	10	3	6
(20) Tusonabad . .	74	19	13	12
(21) Cadell Ganj .	101	22	20	10
(22) Namunaghar .	65	22	24	21
(23) Temple Ganj	126	3	...	...
	922	193	130	119
SCHEDULE B.				
Stations.				
Southern District.				
(1) Viper . . .	12	1	...	...
(2) Tea Garden, Navy Bay . . .	41	...	...	...
(3) Garacherama .	...	...	...	...
(4) Bumlitan . .	...	...	...	...
	53	1	...	...

Occupations.—The chief occupations of self-supporters are cultivation and service, Government or private, but there are a good many miscellaneous occupations followed by them as shown in the Table below :—

PORT BLAIR PENAL SETTLEMENT.

Occupations of Self-supporters in 1901.

Head. / Sub-Head.	Northern District.			Southern District.		
	Self-supporters.	* Wives.	Children.	Self-supporters.	* Wives.	Children.
(1) Cultivators	336	102	114	781	152	201
(2) Sawyers	...	...	...	4	1	...
(3) Carpenters	2	1	2	3	1	...
(4) Petty Contractors	14	3	3	1	...	...
(5) Blacksmiths	2	1	...	2	1	2
(6) Tinners	1	...	...	3	1	...
(7) Potters	1	...	...	1	1	1
(8) Tailors	4	1	1	3	...	...
(9) Mochis	4	1	1	2	...	...
(10) Cattle Graziers	3	...	...	...	...	...
(11) Milk-sellers	31	1	5	17	2	2
(12) Poulterers	4	1	...	10	...	...
(13) Butchers	3	2	...	1	...	...
(14) Fishermen	16	5	4	6	...	...
(15) Baniahs'	6	1	1	16	1	2
(16) Shop-keepers	...	...	...	23	7	12
(17) Servants—						
(*a*) Government	209	9	9	48	13	14
(*b*) Of Residents	136	6	7	9	1	...
(*c*) Of Self-supporters	6	...	...	15	...	...
(*d*) Ayahs	...	17	1	...	3	...
(18) Cooks	...	...	...	2	...	...
(19) Dhobies	6	2	4	9	2	...
(20) Barbers	6	2	3	14	6	14
(21) Sweepers	3	...	...	5	2	1
Total	793	155	155	975	194	249

* Note—The term "wives" includes all grown females living in the houses of male self-supporters.

Owing to changes in the form of statistics, this Table, for the purpose of comparison, has to be shown in another way :—

Year.	Number.	Occupation.							
		Agriculture.	Cattle and poultry.	Fish.	Domestic.	Shop.	Artificers.	Others.	Married women.
1874	1,211	359	42	47	114	77	44	65	463
1881	2,649	1,257	180	53	265	85	127	45	637
1891	3,049	1,644	88	41	458	85	125	51	557
1901	1,768	1,117	59	22	432	45	31	62	349

Value as Agriculturists.—When all the Jail and other buildings now in progress are completed, the Settlement will once more, for solid progress, have to turn its attention to agriculture and in that view the work of the self-

supporters is more than valuable. What they have achieved in the past towards making the land fit for civilised habitation can be seen from this Table :—

Cleared and cultivated land in the Settlement.

Year.	Cleared land in acres.	Cultivated land in acres.
1874 . . .	No data available.	
1881 . . .	10,421	6,775
1891 . . .	21,115	11,678
1901 . . .	24,708	11,456

Although the automatic working of general regulations has very largely reduced the number of self-supporters in the last decade, yet, as a result of steady agricultural labour for many years, there has been an increased productive capacity in the land and an increased prosperity to the self-supporters from their own uncontrolled labour and that of their predecessors in the same period : witness the following Table :—

Value in Rupees of supplies purchased from Self-supporters.

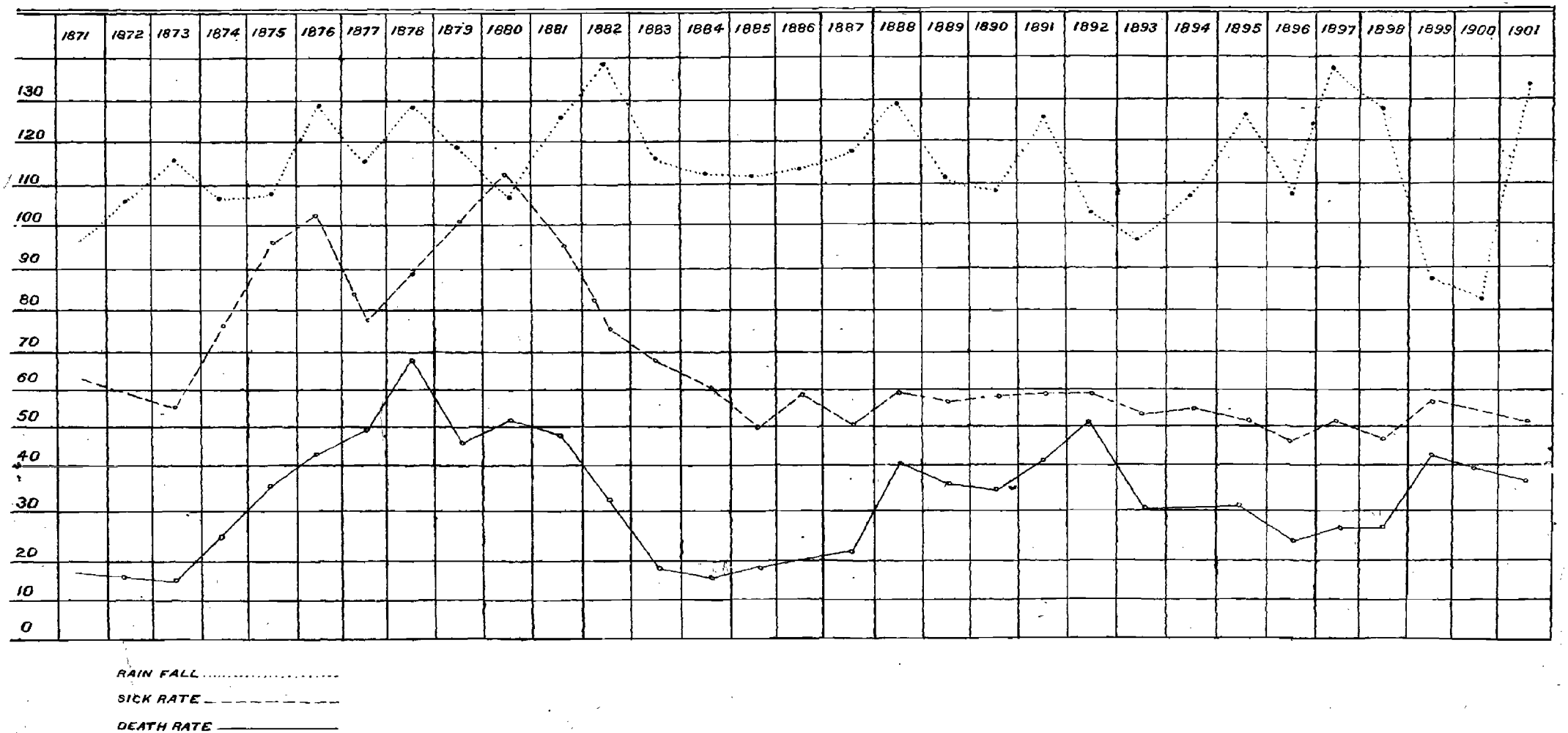
Year.	Value.
	₹
1874	28,692
1881	48,931
1891	53,580
1901	1,06,744

IV.—Sickness and Mortality among Convicts.

Artificial Nature of Sickness and Mortality Returns.—Sickness and mortality are always matters of great consideration among a convict population, but the conditions are also always highly artificial, as there is one constant struggle between efficiency in discipline and labour and the maintenance of a low sick and death-rate by regulation and direct measures. The tendency on one side is to overstrain in the direction of penality and economy, on the other side to secure "satisfactory" health statistics at the cost of over-leniency and extravagance. Port Blair has had no exceptional experience of this struggle, which is perpetually maintained wherever prisoners are congregated in civilised countries. All convict sickness and mortality tables have to be viewed with this point in mind.

Effect of Rainfall.—It is usual in the East to compare on the same form or table, sick-rate, death-rate, and rainfall, but the accompanying Table and diagram, covering 31 years of Port Blair in this manner, go to show that annual rainfall does not there bear any real relation to either sickness or death-rate, and that the death-rate bears some, though far from a continuous, relation to the sick-rate annually. *Monthly* rainfall has a decided effect on the sick-rate, which greatly rises regularly every year during the rains (June—September).

DIAGRAM COMPARING ANNUAL RAINFALL, SICK RATE AND DEATH RATE IN PORT BLAIR FOR 3 YEARS (1871-1901)



PORT BLAIR PENAL SETTLEMENT.

Rainfall and Health Statistics for 31 years, 1871—1901.

Year.	Rainfall in inches.	Sick per cent.	Deaths per cent.	Number of new arrivals.
1871 . . .	97·95	6·38	1·72	143
1872 . . .	106·55	5·91	1·64	694
1873 . . .	115·68	5·50	1·51	743
1874 . . .	106·45	7·60	2·51	700
1875 . . .	108·49	9·62	3·66	767
1876 . . .	129·97	10·35	4·34	1,936
1877 . . .	114·82	7·71	4·90	1,172
1878 . . .	128·88	8·92	6·73	1,541
1879 . . .	119·71	10·00	4·63	1,474
1880 . . .	107·46	11·09	5·12	1,651
1881 . . .	125·56	9·77	4·85	1,202
1882 . . .	137·67	7·42	3·30	975
1883 . . .	115·00	6·72	1·89	711
1884 . . .	110·75	6·00	1·62	903
1885 . . .	111·32	5·00	1·84	936
1886 . . .	112·50	5·81	1·99	1,149
1887 . . .	116·76	5·00	2·30	1,556
1888 . . .	128·27	5·91	4·18	1,706
1889 . . .	110·35	5·68	3·62	1,464
1890 . . .	109·57	5·85	3·56	953
1891 . . .	124·11	5·94	4·18	921
1892 . . .	102·25	5·95	5·15	853
1893 . . .	96·51	5·30	3·09	701
1894 . . .	117·79	5·47	3·07	804
1895 . . .	125·64	5·17	3·10	866
1896 . . .	107·28	4·60	2·32	1,102
1897 . . .	136·41	5·02	2·72	1,102
1898 . . .	127·22	4·79	2·70	1,018
1899 . . .	87·01	5·71	4·22	1,169
1900 . . .	83·28	5·42	4·03	1,259
1901 . . .	132·63	5·04	3·68	1,294

The following is a comparative Table of sickness or mortality in the Settlement for the Census Years, all the medical figures for the last Census being, however, for 1900 :—

PORT BLAIR PENAL SETTLEMENT.

Comparative Table of Sickness and Mortality for the Census Years.

Year.	Average daily strength.			Daily average sick.			Deaths in and out of Hospital.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1874	6,852	885	7,737	580	25	605	177	17	194
1881	9,966	1,097	11,063	1,205	13	1,218	543	18	561
1891	10,739	837	11,576	664	24	688	461	24	485
1900	10,880	714	11,594	602	27	629	452	16	468

Year.	Ratio per mille of average strength.								
	Of admission.			Of daily number of sick.			Of deaths.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1874	2,102·16	1,291·53	2,009·44	84·65	28·25	78·20	25·83	19·21	25·07
1881	2,561·81	753·87	2,382·54	120·91	11·85	110·09	54·49	16·41	50·71
1891	1,607·13	1,342·89	1,588·03	61·83	28·67	59·43	42·93	28·67	41·90
1900	2,051·38	1,806·72	2,036·31	55·35	37·28	54·20	41·54	22·41	40·36

Health Cycles.—Statistics for isolated years such as these are, however, illusory, as, from some causes not yet reported, the sickness and mortality appear to rise and fall in the Penal Settlement in successions of years, as can be seen from the accompanying abstract of the Thirty-one Years Table.

PORT BLAIR PENAL SETTLEMENT.

Cycles of Health.

Serial number.	Period.	Years.	Death rate.	Average death rate per mille.
1	4 years	1871 to 1874	Low	18·46
2	7 years	1875 to 1881	High	49·07
3	6 years	1882 to 1887	Low	22·02
4	5 years	1888 to 1892	High	41·37
5	6 years	1893 to 1898	Low	28·39
6	2 years	1899 to 1900	High	41·25

The worst year on record is 1878-79 (67·30). The first group is probably thend and the last the beginning of a cycle.

This would seem to be a point requiring extensive examination, as, where sickness and death from disease can be, to a certain extent, controlled by measures, there is a natural tendency to rush into expenditure during a " bad " year and to be careless after " good " ones; whereas with an " artificial " sick and death rate the point to aim at is a constant mean.

Causes of Variation in Annual Returns.—Sick and death rates for any given period or year are really due to a combination of causes that are very difficult to collect together and tabulate satisfactorily, but the enquiry resulting in next set of Tables of Health given in this Report seems to point to one important clue in accounting for the variation of sick and death rates at Port Blair from time to time, as they show that the highest rates are among the latest arrivals and that it is the convicts of five years' residence and less that fill the sick and death Tables. The inference, then, is that the health statistics for any given period or year depend largely on the numbers of new arrivals and convicts of short residence present. It is for this reason that a column showing the numbers of the new arrivals has been added to the Table given above of the rainfall and health statistics for the last thirty-one years. The column, however, cannot explain of itself the annual variation in the sick and death rates: it can only provide a clue for finding the true explanation.

Very careful statistics were collected on fixed days during a "bad" week of 1902, *viz.*, 25th and 28th June and 2nd July of the *men* actually sick among the convicts, with a view to ascertaining facts regarding the convict sickness, on which to base measures for controlling it,—of arriving at the mean just mentioned.

Prevalent Diseases.—As regards the prevalent diseases the following are the general figures for these days, which approximate, as a matter of fact, the figures usually returned annually :—

PORT BLAIR PENAL SETTLEMENT.

Prevalent diseases of the sick and convalescent convicts on the 25th, 28th June and 2nd July 1902.

Disease.	Percentage of prevalence among the sick.
Malarial fever (47°/₀) and dysentery consequent thereon (7°/₀)	54
Ulcers and injuries	16
Phthisis	6
All other diseases including dysentery other than malarial (7°/₀)	24
Total	100

Ulcers and injuries are classed together, as they are both ordinarily induced in the convicts by outdoor work and are largely due to their innate personal carelessness and so beyond the control of the authorities. But since a Mosquito Brigade and other apparatus for reducing mosquitoes are getting into working order at Port Blair, the great scourge malaria will perhaps largely disappear from the returns at the next Census. After malaria, dysentery (caused by malaria and otherwise) is the chief disease and is being combatted by improved cooking, milk, and diet, and so perhaps that, too, will be reduced in proportionate amount by the next Census. Phthisis (with tuberculosis), as an infectious preventible disease likely to spread if unchecked, is being tackled by a special Phthisis Hospital, spread of information regarding its nature, and notification of its existence to the various authorities in the actual charge of convicts, with a view to checking its spread.

There appears to be no doubt that these three (malaria, dysentery, phthisis) are the main points requiring special attention, and also that, if malaria alone can be successfully checked in growth, the health of the Penal Settlement will put on a new aspect.

Causes governing Annual Returns.—Detailed statistics were drawn up on the test days to illustrate the effect of the following points on the sick rate :—length of residence, character, mode of cooking food, nature of the labour, place of residence. They all dovetail into each other and it is the combination of all these that produces any given sick rate.

No one of the Tables thus procured is correctly legible *per se*, nor without some knowledge of the conditions that control the figures. Each Table will therefore be accompanied by a commentary designed to assist in reading it.

Length of Residence.—The Tables for the effect of length of residence on health show that there is a steady annual decline in the sick rate for the first six years, after which it remains pretty steadily at a low figure, and that it is the new arrivals who swell the general sick rate. But in reading them the following facts must be borne in mind. Third class convicts, chiefly those up to five years' residence, go to hospital as often as they think they will be admitted. The first and second class convicts have something to lose by going to hospital. No self-supporter ever goes to hospital if he can help it, as he loses thereby working time and hence income and also his means of looking after his property and land.

PORT BLAIR PENAL SETTLEMENT.

EFFECT OF LENGTH OF RESIDENCE ON HEALTH AS SHOWN ON TEST DAYS.

Male convicts average sick and convalescent on 25th, 28th June and 2nd July 1902, according to length of residence.

Length of residence.	No. sick.	No. convalescent.	Total sick.	Strength of class.	Sick rate per cent. of strength.
Less than one year .	123	88	211	965	21·86
1 year . .	150	138	288	1,495	19·26
2 years . .	96	69	165	1,055	15·63
3 years . .	71	56	127	1,025	12·39
4 years . .	62	39	101	949	10·64
5 years . .	50	18	68	753	8·97
6 years . .	28	14	42	996	4·21
7 years . .	28	15	43	873	4·92
8 years . .	28	8	36	581	6·19
9 years and over .	130	78	208	3,126	6·65
Self-supporters .	25	...	25	2,091	1·19
TOTAL .	791	523	1,314	12,918	10·17

In the Table of the effect of length of residence on the main diseases, the phthisis percentages are not large enough as yet to comment on. The high fever and dysentery rates are among the convicts of under five years' residence in a steady decline for both diseases from date of arrival. Assuming that half the dysentery is due to the action of malarial fevers, the inference is that malaria dominates the sickness of new arrivals, the highest rate being amongst the men of under one year's residence. Variation in sick rate is therefore partly due to the variations in the number of new arrivals from year to year.

PORT BLAIR PENAL SETTLEMENT.

Effect of malaria on new arrivals.

Male convicts average sick, convalescent and convalescent re-admissions on 25th, 28th June and 2nd July 1902.

Length of residence.	Malaria. Percentage of sick to strength.		
	Fever.	Dysentery.	Both.
Less than 1 year	13·26	3·20	16·86
1 year	8·96	2·60	11·56
2 years	9·00	2·46	11·46
3 years	8·39	1·90	10·29
4 years	5·58	1·63	7·21

PORT BLAIR

EFFECT OF THE MAIN DISEASES ON LENGTH

Male convicts average sick, and convalescents and convalescent re-admissions on

Length of residence.	Strength of class.	Fevers.					Dysentery and Bowel Complaints.				
		Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
Less than 1 year . .	965	60	67	1	128	13·26	33	27	2	62	6·41
1 year	1,495	49	74	11	134	8·96	40	33	5	78	5·21
2 years	1,055	49	42	4	95	9·00	22	27	3	52	4·92
3 years	1,025	42	36	8	86	8·39	22	11	6	39	3·80
4 years	949	28	21	4	53	5·58	11	19	1	31	3·26
5 years	758	20	8	4	32	4·22	9	6	...	15	1·97
6 years	996	21	12	1	34	3·41	6	4	...	10	1·00
7 years	873	14	11	1	26	2·97	6	5	1	12	1·37
8 years	581	18	6	3	27	4·64	2	3	1	6	1·03
9 years and over . .	3,126	64	36	5	105	3·35	22	24	2	48	1·53
Self-supporters . . .	2,091	7	...	...	7	·33	5	...	...	5	·23
GRAND TOTAL .	12,918	372	313	42	727	5·62	178	159	21	358	2·77

PENAL SETTLEMENT.

OF RESIDENCE AS SHOWN ON TEST DAYS.

25th, 28th June, and 2nd July 1902, according to disease and length of residence.

PHTHISIS.					ULCERS AND INJURIES.					ALL OTHER DISEASES.				
Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
1	...	...	1	·10	11	...	1	12	1·24	9	8	...	17	1·76
2	1	...	3	·20	15	2	2	19	1·33	16	11	3	30	2·00
2	...	...	2	·18	11	1	2	14	1·32	11	13	4	28	2·65
2	1	...	3	·29	11	1	...	12	1·17	8	7	...	15	1·46
3	...	...	3	·31	9	...	...	9	·94	7	5	1	13	1·37
4	...	...	4	·51	4	...	...	4	·51	10	6	...	16	2·11
4	...	...	4	·40	2	...	...	2	·20	7	1	1	9	·90
3	...	...	3	·34	3	...	...	3	·34	6	1	...	7	·80
1	...	...	1	·17	4	...	...	4	·68	6	5	1	12	2·06
15	...	3	18	·57	12	2	...	14	·44	28	9	2	39	1·21
...	...	...	...	...	6	...	...	6	·28	5	...		5	·23
37	2	3	42	·32	88	6	5	99	·76	113	66	12	191	1·48

Personal Character.—As to the effect of personal character on health, it is to be observed that the highest sick rate of all is among the really bad—men with very bad or bad Indian character and very bad local character in the Settlement. Next in order come those with only local very bad character. No doubt long continued evil habits of life permanently affect health, and also in some of such cases successful malingering may be suspected.

PORT BLAIR PENAL SETTLEMENT.

EFFECT OF PERSONAL CHARACTER ON HEALTH AS SHOWN ON TEST DAYS.

Male convicts average sick and convalescent on 25th, 28th June, and 2nd July 1902, according to character.

Local character.	No. sick.	No. convalescent.	Total sick.	Strength of class.	Sick rate per cent. of strength.
A.—Indian Jail or previous character—Good or Fair.					
1. Very bad .	78	57	135	868	15·55
2. Bad . .	13	19	32	267	11·98
3. Good .	612	378	990	10,470	9·45
B.—Indian Jail or previous character—Bad or Very bad. (D ticket.)					
1. Very bad .	48	38	86	363	23·69
2. Bad .	2	1	3	50	6
3. Good .	38	30	68	900	7·55
Grand Total of A and B	791	523	1,314	12,918	10·17

Mode of Cooking.—Personal cooking being the rule in India, for strong disciplinary reasons convicts are "promoted" from the "mess gang" to private cooking. In the result somewhat less than half are in "mess gangs." The Table of the effect of the method of cooking on health shows the sick rate to be five times greater among the mess gangs than among those who cook for themselves. These figures must, however, be read with caution, as in the "mess gangs" are included all the latest arrivals and the bad characters. They thus lose much of their relative importance.

PORT BLAIR PENAL SETTLEMENT.

EFFECT OF METHOD OF COOKING ON HEALTH AS SHOWN ON TEST DAYS.

Male convicts average sick and convalescent on 25th, 28th, and 2nd July 1902, according to method of cooking.

Mode of cooking.	No. sick.	No. convalescent.	Total sick.	Strength of class.	Sick rate per cent. of strength.
Cooking, self .	156	46	202	6,057	3·33
Mess Gangs .	635	476	1,111	6,861	16·19
TOTAL .	791	522	1,313	12,918	10·17

Nature of Labour.—In reading the Tables showing the effect of convict labour on sick rate, it is to be remembered that all the labour in Port Blair is by way of being "hard," *i.e.*, a full task is to be exacted of whatever work a convict is put to, and all arrivals are presumed to be physically capable of a full task before despatch. But social antecedents, personal capacities, education, state of personal health from time to time, advancing years, and the nature of the work from time to time necessary for the welfare and progress of the Settlement, all tell in distributing tasks.

The very varied tasks demanded are in this way divisible into indoor and outdoor, and then again into ordinary and hard. The indoor "hard labour" men are the bad and very bad characters in jails. The outdoor "hard labour" men include the chaingang, the habitual criminals, the unnatural-crime men, and so on. So character comes into play in gauging the "hard labour" sick returns.

Statement of sick, convalescents, and convalescent re-admissions into the hospitals of based on averages of 3 days, 25th and

Nature of work.	Strength.	Fevers.					Dysentery and Bowel Complaints.				
		Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent of strength.
Indoor—											
Ordinary ...	2,681	40	18	2	60	2·23	21	5	1	27	1·00
Hard ...	1,217	40	31	4	75	6·16	26	9	2	37	3·04
Outdoor—											
Ordinary ...	5,597	128	96	21	245	4·37	24	22	3	49	·85
Hard ...	3,228	153	168	15	336	10·40	35	25	12	72	2·23
Lunatics and Lepers	195	11	...	...	11	5·64	2	...	...	2	1·02
Total .	12,918	372	313	42	727	5·62	108	61	18	187	1·44

Statement of sick, convalescents, and convalescent re-admissions into the Hospitals came, based on averages of 3 days,

Nature of work.	Strength.	Fevers.					Dysentery.					
		Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.
Indoor—												
Ordinary . .	1,911	35	14	2	51	2·66	18	2	1	21	1·09	5
Hard . . .	984	29	25	4	58	5·89	23	7	2	32	3·25	...
Outdoor—												
Ordinary . .	3,277	85	61	15	161	4·91	21	19	1	41	1·25	13
Hard . . .	2,158	94	90	6	190	8·80	24	20	9	53	2·45	13
Lunatics and Lepers .	195	11	...	...	11	5·64	...	...	...	...	...	...
Total .	8,525	254	190	27	471	5·52	86	48	13	147	1·72	31

Statement of sick, convalescents, and convalescent re-admissions into Viper which they came, based on averages of 3 days,

Nature of work.	Strength.	Fevers.					Dysentery and Bowel Complaints				
		Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
Indoor—											
Ordinary . . .	770	5	4	—	9	1·16	6	1	...	7	0·90
Hard . . .	233	11	6	...	17	7·29	3	3	...	6	2·57
Outdoor—											
Ordinary . .	2,320	43	35	6	84	3·62	39	34	1	74	3·10
Hard . . .	1,070	59	78	9	146	13·64	22	60	2	84	7·85
Total .	4,393	118	123	15	256	5·82	70	98	3	171	3·89

the Settlement according to diseases and nature of work from which they came, 28th June and 2nd July 1902.

Phthisis.					Ulcers and Injuries.					All other diseases.				
Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
5	1	...	6	·22	10	...	...	10	·37	15	4	1	20	·74
1	...	...	1	·08	20	...	...	20	1·64	22	2	...	24	1·97
15	1	2	18	·32	25	2	...	27	·48	31	16	5	52	·93
16	...	1	17	·52	32	4	5	41	1·27	44	44	6	94	2·91
...	...	...	...	...	1	...	...	1	·51	1	...	...	1	·51
37	2	3	42	·32	88	6	5	99	·76	113	66	12	191	1·47

of the Northern District, according to diseases and nature of work from which they 25th and 28th June and 2nd July 1902.

Phthisis.				Ulcers and Injuries.					Bowel Complaints.					All other diseases.				
Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescents re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescon tre-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
1	...	6	·31	10	...	...	10	·52	3	3	...	6	·31	13	3	1	17	·88
...	...	...	...	18	...	...	18	1·82	3	2	...	5	·50	7	1	...	8	·81
1	1	15	·45	15	...	...	15	·45	3	3	2	8	·27	26	9	4	39	1·19
...	1	14	·64	20	3	4	27	1·25	11	5	3	19	·88	27	31	5	63	2·91
...	...	...	...	1	...	...	1	·51	2	...	...	2	1·02	1	...	...	1	·51
2	2	35	·41	64	3	4	71	·83	22	13	5	40	·46	74	44	10	128	1·50

Hospital, Southern District, according to diseases and nature of work from 25th and 28th June and 2nd July 1902.

Phthisis.					Ulcers and Injuries.					Bowel Complaints.					All other diseases.				
Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
...	...	...	...	...	...	...	...	...	...	Included under Dysentery.					2	1	...	3	0·39
1	...	...	1	...	2	...	...	2	0·43						15	1	...	16	6·86
2	...	1	3	0·13	10	2	...	12	0·51						5	7	1	13	0·56
3	...	...	3	0·28	12	1	1	14	1·30						17	13	1	31	2·89
6	...	1	7	0·16	24	3	1	28	0·63						39	22	2	63	1·43

the Settlement according to diseases and nature of work from which they came, 28th June and 2nd July 1902.

Phthisis.					Ulcers and Injuries.					All other diseases.				
Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
5	1	...	6	·22	10	...	...	10	·37	15	4	1	20	·74
1	...	...	1	·08	20	...	...	20	1·64	22	2	...	24	1·97
15	1	2	18	·32	25	2	...	27	·48	31	16	5	52	·93
16	...	1	17	·52	32	4	5	41	1·27	44	44	6	94	2·91
...	...	...	...	...	1	...	...	1	·51	1	...	...	1	·51
37	2	3	42	·32	88	6	5	99	·76	113	66	12	191	1·47

of the Northern District, according to diseases and nature of work from which they 25th and 28th June and 2nd July 1902.

Phthisis.				Ulcers and Injuries.					Bowel Complaints.					All other diseases.				
Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescents re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescen tre-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
1	...	6	·31	10	...	...	10	·52	3	3	...	6	·31	13	3	1	17	·88
...	...	...	...	18	...	...	18	1·82	3	2	...	5	·50	7	1	...	8	·81
1	1	15	·45	15	...	...	15	·45	3	3	2	8	·27	26	9	4	39	1·19
...	1	14	·64	20	3	4	27	1·25	11	5	3	19	·88	27	31	5	63	2·91
...	...	...	...	1	...	...	1	·51	2	...	...	2	1·02	1	...	...	1	·51
2	2	35	·41	64	3	4	71	·83	22	13	5	40	·46	74	44	10	128	1·50

Hospital, Southern District, according to diseases and nature of work from 25th and 28th June and 2nd July 1902.

Phthisis.					Ulcers and Injuries.					Bowel Complaints.					All other diseases.				
Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
...	...	...	...	...	...	...	...	...	...	Included under Dysentery.					2	1	...	3	0·39
1	...	...	1	...	2	...	...	2	0·43						15	1	...	16	6·86
2	...	1	3	0·13	10	2	...	12	0·51						5	7	1	13	0·56
3	...	...	3	0·28	12	1	1	14	1·30						17	13	1	31	2·89
6	...	1	7	0·16	24	3	1	28	0·63						39	22	2	63	1·43

Place of Residence.—As to the effect of the place of residence in the Settlement on health, convicts have to be located as near as possible to the work that it is obligatory to impose on them and this is a point that has always to be remembered in fixing location. The sick rate, on the test days for all diseases, was found to be pretty equally distributed between the two districts of the Settlement, but to vary very largely for individual stations. For comparing stations the large (above 350 population) have to be separated from the small (below 350,, as with a small population quite a few individual cases will cause the percentage to vary largely either way.

The following Table can be thus produced:—

Large Stations (over 350).	Nature of chief work.	Percentage of sick to strength.		
		Fever.	Dysentery.	Both.
Namunaghar . . .	Quarries and firewood . .	9·33	9·09	18·42
Dundas Point . . .	Brickfields . . .	10·54	7·03	17·57
Bajajag	Firewood and forestry . .	15·15	1·89	17·04
Navy Bay	Tea gardens . . .	8·18	5·54	13·72
Goplakabang . . .	Tea and forestry . . .	8·90	2·67	11·57
Viper	General (jail and bad character)	6·58	3·50	10 08
Shore Point . . .	General and firewood . .	6·68	1·96	8·66
Aberdeen	(Very large) all sorts . .	5·46	2·41	7·81
Phœnix Bay . . .	Workshops . . .	3·89	2·07	5·96
Haddo	General (Asylums) . .	4·34	1·22	5·56
Ross	General (good character only) .	2·66	1·12	3·78

But it is not at all easy to read this Table usefully: as the rates are only for three days in a "bad" week and localities necessarily vary greatly from month to month in comparative healthiness, and also in a "station" are convict barracks, permanent and temporary, situated at sometimes considerable distances apart and in a considerable variety of site. Again, several other points have to be considered before arriving at a real comparison of localities:— length of service, character, nature of the labour of the men employed at a station from time to time, all tell on its health returns. And also a place selected for residence has to do with the nature of the obligatory work of the Settlement. It is therefore doubtful whether locality within the Settlement limits has a preponderating influence on health *per se*. The only places where both fever and dysentery rates were found to be high were Dundas Point and Namunaghar.

EFFECT OF PLACE OF RESIDENCE ON HEALTH AS SHOWN ON TEST DAYS.

Male convicts average sick, convalescents, and convalescent re-admissions on 25th and 28th June and 2nd July 1902, according to stations in the Northern District.

PORT BLAIR

EFFECT OF PLACE OF RESIDENCE ON

Male convicts average sick, convalescents, and convalescent re-admissions on 25th and

Stations.	Strength average of the three days.	FEVERS.					DYSENTERY.				
		Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
Ross . . .	714	8	9	2	19	2·66	1	6	1	8	1·12
Aberdeen . .	2,240	67	52	2	121	5·40	39	13	2	54	2·41
Phœnix Bay . .	771	27	3	...	30	3·89	10	3	3	16	2·07
Haddo . . .	736	26	5	1	32	4·34	6	2	1	9	1·22
Chatham . . .	298	13	4	1	18	6·04	1	3	...	4	1·34
North Bay . .	191	16	10	1	27	14·13	3	...	1	4	2·09
Hope Town . .	223	13	9	4	26	11·66	2	1	1	4	1·80
Mount Harriet . .	196	8	9	...	17	8·67	3	1	1	5	2·55
Shore Point . .	359	11	12	1	24	6·68	5	2	...	7	1·96
Goplakabang . .	898	31	41	8	80	8·90	10	11	3	24	2·67
Bajajagda . .	475	29	36	7	72	15·15	3	5	1	9	1·89
Self-supporters of district . . .	960	5	...	...	5	·52	3	...	...	3	·31
TOTAL .	8,061	254	190	27	471	5·84	86	47	14	147	2·07

PORT BLAIR

EFFECT OF PLACE OF RESIDENCE ON

Male convicts average sick, convalescents, and convalescent re-admissions on 25th and

Stations.	Strength average of the three days.	FEVERS.					DYSENTERY AND DIARRHŒA.				
		Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
Viper . . .	942	30	28	4	62	6·58	15	17	1	33	3·50
Dundas Point . .	825	39	43	5	87	10·54	19	38	1	58	7·03
Namunaghar . .	418	17	20	2	39	9·33	16	21	1	38	9·09
Port Mouat . .	274	7	3	...	10	3·65	1	3	...	4	1·46
Dhani Khari . .	87	1	3	...	4	4·60	...	1	...	1	1·15
Bumlitan . .	78	3	4	...	7	8·97	7	2	...	9	11·54
Pahargaon . .	259	9	5	1	15	5·79	4	2	...	6	2·31
Navy Bay . .	379	11	17	3	31	8·18	7	14	...	21	5·54
Self-supporters of district . . .	1,131	1	...	...	1	·08	1	...	...	1	·08
TOTAL .	4,393	118	123	15	256	5·83	70	98	3	171	3·89

PENAL SETTLEMENT.

HEALTH AS SHOWN ON TEST DAYS.

28th June and 2nd July 1902, according to stations in the Northern District.

PHTHISIS.					BOWEL COMPLAINTS.					ULCERS AND INJURIES.					ALL OHTER DISEASES.				
Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent of strength.
1	...	1	2	·28	1	...	...	1	·14	4	...	1	5	·70	8	...	1	9	1·26
2	...	...	2	·09	7	...	...	7	·31	10	...	...	10	·44	12	...	1	13	·58
5	...	...	5	·64	...	1	...	1	·13	4	...	...	4	·51	9	...	...	9	1·16
...	...	...	...	...	5	1	1	7	·95	1	...	...	1	·13	10	10	1	21	2·85
3	...	...	3	·10	...	...	...	...	...	1	...	...	1	·33	4	2	...	6	2·08
2	...	...	2	1·04	...	1	...	1	·52	4	...	...	4	2·09	1	2	...	3	1·57
...	...	...	...	...	...	2	...	2	·90	4	1	...	5	2·24	2	2	...	4	1·80
...	...	...	...	...	...	...	...	...	...	4	...	1	5	2·55	3	3	2	8	4·08
13	1	1	15	4·18	1	...	...	1	·28	3	...	...	3	·83	4	4	...	8	2·23
2	...	...	2	·22	5	4	2	11	1·22	14	1	...	15	1·67	12	15	2	29	3·23
3	1	...	4	·84	3	4	2	9	1·89	12	1	2	15	3·15	6	6	3	15	3·15
...	...	...	...	...	...	...	...	...	...	3	...	...	3	·31	3	...	...	3	·31
31	2	2	35	·49	22	13	5	40	·56	64	3	4	71	1·0	74	44	10	128	1·80

PENAL SETTLEMENT.

HEALTH AS SHOWN ON TEST DAYS.

28th June and 2nd July 1902, according to Stations in the Southern District.

PHTHISIS.					BOWEL COMPLAINTS.					ULCERS AND INJURIES.					ALLOTHER DISEASES.				
Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.	Sick.	Convalescents.	Convalescent re-admissions.	Total.	Per cent. of strength.
2	...	1	3	·31	Included under Dysentery.					6	...	...	6	·63	14	4	...	18	1·89
2	...	...	2	·24						3	1	...	4	·48	7	5	1	13	1·57
2	...	...	2	·24						7	1	...	8	·96	9	6	1	16	1·92
...	...	...	...	...						1	...	...	1	·36	1	1	...	2	1·72
...	...	...	...	...						1	...	...	1	1·15	1	...	...	1	1·15
...	...	...	...	...						...	...	...	...	...	1	2	...	3	3·85
...	...	...	...	...						1	1	1	3	1·16	1	1	...	2	·77
...	...	...	...	...						2	...	...	2	·52	2	3	...	5	1·90
...	...	...	...	...						3	...	...	3	·24	3	...	...	3	·72
6	...	1	7	·16						24	3	1	28	·63	39	22	2	63	1·43

Results of an Enquiry made in 1867.—In 1867, when the general conditions of the Settlement and the state of medical knowledge and terminology differed greatly from those now obtaining, Dr. W. H. Rean, Senior Medical Officer, wrote a very careful report on the health of the Settlement, and his general conclusions are much those above arrived at. At that time and previously the death-rate had always been very high, except in one year, 1865, when it was even then high according to present notions, 65·70 per mille; but then deaths from "ulcers degenerating into gangrene" were numerous, a state of things now happily passed away with antiseptic treatment.

He noticed (1) that the great causes of sickness and death were fevers and what he called "miasmatic diseases"—fever (malarial), dysentery, diarrhœa, and "others;" (2) that the great mortality was in the first and succeeding years after arrival; (3) that the nature of the labour affected health, out-door jungle and swamp work being the worst for health; (4) that character did so too, the worst characters being the most sickly; and (5) that few arrivals in a year combined with few arrivals in previous years sent down the sick and death-rates.

He drew up one still instructive table which helps to illustrate the results above given, *e. g.*,—

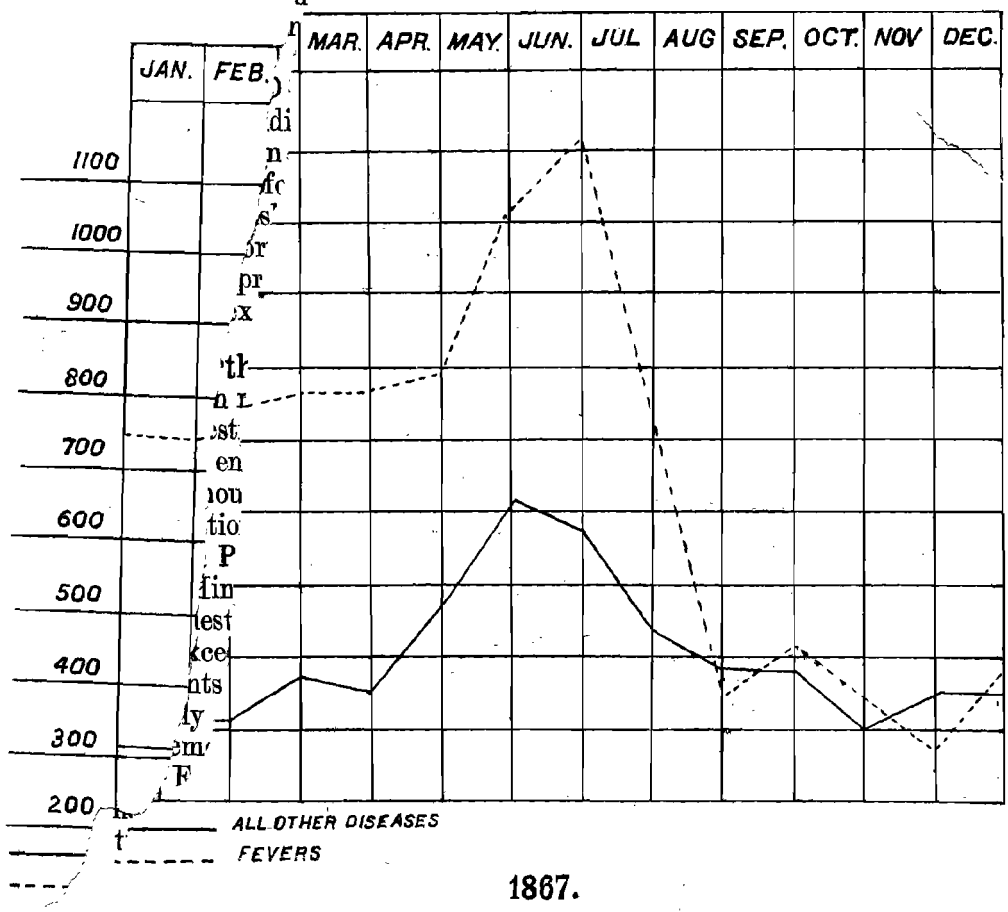
Table of 1867 showing convict death rate with reference to length of residence.

	Under 1 year.	Under 2 years.	Under 3 years.	Under 4 years.	Over 4 years.
Strength . .	1,803	2,698	743	558	1,743
Deaths . .	347	191	51	65	46
Percentage to strength.	24·7	7·0	6·8	11·6	2·6

He also drew up two diagrams showing the prevalence of fever with reference to other diseases: one generally for the Settlement, where the enormous preponderance of fevers at that time becomes clear, and another for Viper Island showing the sick from the population of that island only, where there is a decided preponderance of other diseases over fevers He attributed this to the early clearing of the island and the absence of miasma, where now-a-days we should say it was due to the clean condition of a hilly island which prevented mosquitoes from breeding. These diagrams are still instructive.

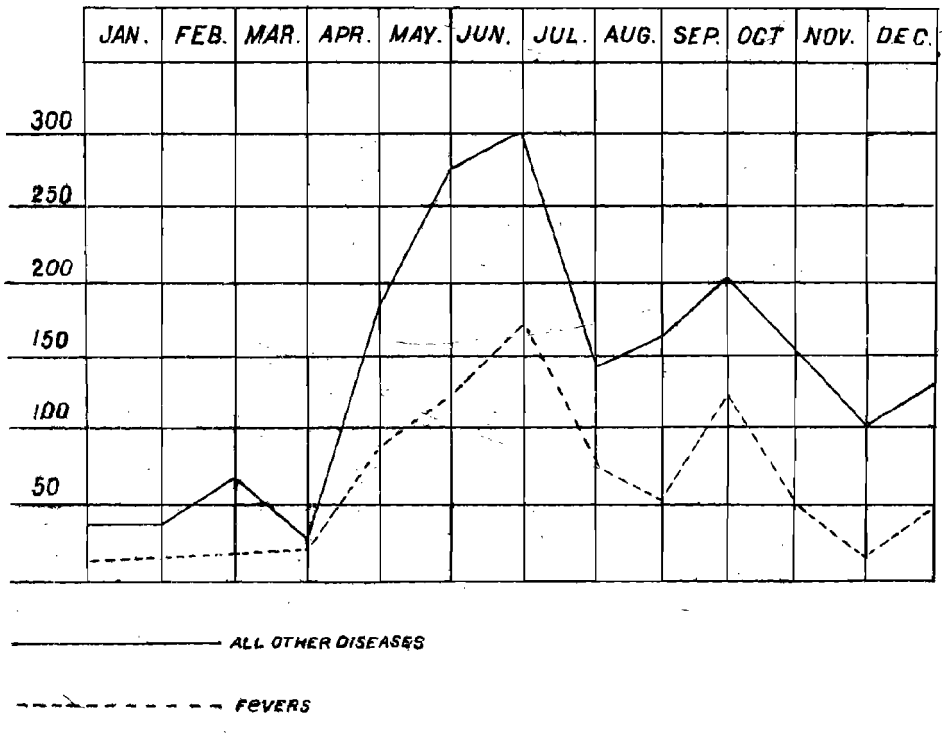
1867.

DIAGRAM SHOWING RELATIVE PREVALENCE OF FEVERS AND ALL OTHER DISEASES IN THE PENAL SETTLEMENTS : GENERAL CONDITIONS ; CONSIDERABLE JUNGLE CLARING OR JUNGLE WORK ; CONSIDERABLE ACCESS OF NEW ARRIVALS.



1867.

DIAGRAM SHOWING RELATIVE PREVALENCE OF FEVERS AND ALL OTHER DISEASES ON VIPER ISLAND : SPECIAL CONDITIONS ; ISLAND CLEARED AND KEPT CLEAN ; SMALL OPPORTUNITY FOR MOSQUITOES TO BREED ; POPULATION CONFINED TO THE ISLAND.



(3) *Q.* When a local born boy marries a local born girl of his own caste, who pays the expenses?

A. The same rule as in the first question applies. The parents of the boy pay if they can; if not, the girl's parents pay.

(4) Based on actual returns of local born mixed-caste marriages the following question was asked, the second caste name representing that of the girls.

Q. Which is considered the highest caste locally of:—

	Q.	A.
U	Bania or Lohar?	Bania.
D	Kayath or Thakur?	Thakur.
U	Kayath or Kaibarth?	Kayath.
U	Kayath or Garasia?	Kayath.
D	Khatri or Thakur?	Thakur.
U	Khatri or Ahir?	Khatri.
U	Dosadh or Namasudra (Madras)?	Dosadh.
D	Dosadh or Baghdi?	Baghdi.
U	Kurmi or Kachi?	Kurmi.
D	Kurmi or Bania?	Bania.
D	Bind or Thakur?	Thakur.
U	Maratha or Kunbi?	Maratha.
U	Sonar or Nonia?	Sonar.
D	Pasi or Bania?	Bania.

The letter U in the above Table shows where the girls married "up" and D where they married "down."

The question here is, of course, not which of these pairs of castes are held to be the higher in India, nor whether they would, in any circumstances, associate together in India, but which is locally the higher and why they will associate locally. In every one of these mixed-caste marriages the issue will be of the father's caste. In one case the opposite sexes in two families married each other: one family was Baghdi and the other was Dosadh. In some parts at least of India they would all have become of one "caste" and both families would have been "outcasted." In Port Blair the Dosadh girls in this instance have become Baghdi and the Baghdi girls have become Dosadh, and they and their children are so recognised socially.

The answers to the last and indeed to all the questions show clearly that there is as yet no notion of hypergamy in the Penal Settlement and that under pressure of surrounding conditions caste has to be set aside in marriages and can only be maintained by ignoring the caste of the mothers. There is, however, a strong desire to marry into the same caste and wherever practicable it is no doubt done, and it is probable that caste maintenance in its strictness will commence in the Penal Settlement by isogamy which, in India, is so merged in hypergamy that it is left out of consideration in the present Census Reports. That in time caste will rule marriages and social relations in the Penal Settlement in all its accustomed force there appears to be little doubt.

Character of the Convicts' Descendants.—Like every other population, the local born comprise every kind of personal character. Taken as a class they may, however, be described thus. As children they are bright, intelligent, and unusually healthy. It is the rule, not the exception, for the whole of a local born family to be reared. On the score of intelligence they do not fail throughout life. As young people they do not exhibit any unusual degree of violence and inclination to theft, but their general morality is distinctly low. Among the girls, even when quite young, there is a painful amount of prostitution, open and veiled: the result partly of temptation in a population in which the males very greatly preponderate, but chiefly due to bad early associations—convict mothers not being a class likely to bring up their girls to a high morality. The boys, and sometimes the girls, exhibit much defiant pride of position, *i.e.*, in being "free" as opposed to being "convict," combined with a certain mental smartness, idleness, dislike to manual labour, and disrespect for age and authority that stand much in their way in life. Their defiant attitude is probably due to the indeterminate nature of their social status as has been observed of classes unhappily situated socially elsewhere. Heredity seems to show itself in both sexes rather in a tendency towards the meaner qualities than towards violence of temperament.

The adult villagers are quarrelsome and as litigious as the Courts will permit them to be, borrow all the money they can, do not get as much out of the land as they might, and spend too much time in attempting to get the better of neighbours.

At the same time, it would be an entire error to suppose that the better elements in human nature are not also exhibited and convicts' descendants have shown themselves to be upright, capable, hardworking, honest, and self-respecting. On the whole, considering their parentage, the local born population is of a much higher type than the inexperienced would expect to find them, though there is too great a tendency on the part of the whole population to lean on the Government, the result probably of the excessive "governing" necessary in such a place as a Penal Settlement.

Occupations.—At present there are 279 local born male adults earning their own living and maintaining their families in the Penal Settlement and their occupations explain themselves in the following table:—

PORT BLAIR PENAL SETTLEMENT.

Occupations of the Local Born Adults.

Occupation.	No. following it.	No. of adult dependents (elderly women, wives, and sisters).	Total supported by it.
Government Service	84	76	160
Trade and shop	13	21	34
Agriculture	149	190	339
Private service	33	36	69
TOTAL	279	323	602

Education.—The local born population is better educated than is the rule in India, as elementary education is compulsory for all self-supporter children: girls up to 10 and boys up to 14. The sons of the local born and of the free settlers are also freely sent to the schools, but not the daughters—fear of contamination in the latter case being a ruling consideration, in addition to the usual conservatism in such matters. The girls do not retain much of what they have been taught, but many of the boys are really literate in the vernacular. A fair proportion become sufficiently proficient in English for clerkships. Provision is also made for mechanical training to those desiring it, but it is not largely in request, except in tailoring, and there is a fixed system of physical training for the boys. Sewing is taught the girls.

APPENDIX A.

Daily Labour Statement for the dry season of 1901.

Head, Sub-head.	Daily average.			Head, Sub-head.	Daily average.		
DETAILS OF APPROPRIATED LABOUR.				(5) Connected with Station work:			
I. INEFFECTIVE—				(*a*) Rations, collection and distribution	56		
(1) Sick and detained in Hospital	555			(*b*) Watchmen	189		
Less in departmental employ	80			(*c*) Cooks	169		
		475		(*d*) Watermen	193		
(2) In custody		7		(*e*) Sweepers (rubbish)	48		
(3) On Jail labour:				(*f*) Dhobies	68		
(*a*) Cellular Jail	140			(*g*) Barbers	41		
(*b*) Viper Jail	120					735	
		260		(6) Carters		208	
(4) Attending Courts		10		(7) Cattle attendants		119	
(5) Under transfer		10		(8) Government cultivation		120	
(6) Lunatics		153		(9) Postmen		21	
(7) Lepers		34		(10) Revenue collection		4	
(8) Not availabe for hard labour:				(11) Station manufactures		24	
(*a*) Invalids	320			(12) Conservancy		115	
(*b*) Convalescents	270			(13) Fishermen		85	
		590		(14) Salt works		10	
			1,539	(15) Vegetable supplies:			
II. DEPARTMENTAL EMPLOY—				(*a*) Vegetables	137		
(1) Commissariat:				(*b*) Mustard	10		
(*a*) Fixed	202			(*c*) Castor and chillies	6		
(*b*) Average occasional	18			(*d*) Limes	4		
		220				157	
(2) Marine		247		(16) Charcoal burners		50	
(3) Medical:				(17) Coffee and cocoa plantation		20	
(*a*) Hospitals	194			(18) Cane manufacturers		21	
(*b*) Light labour	75			(19) Jungle materials collection		49	
		269		(20) Lamp-lighters		8	
(4) Schools		25		(21) Settlement Band		9	
(5) Police		77		(22) Disposal of the dead		6	
(6) Andamanese		25		(23) Average steamer loading		22	
(7) Military		20					2,489
(8) Forest:				V. FIXED WORKS—			
(*a*) Firewood	342			(1) Cellular Jail aud Mount Harriett		250	
(*b*) Chatham Saw-mill	131			(2) Associated Jail		200	
(*c*) Timber	387			(3) Phœnix Bay Workshops with Lime Kiln and Tannery		429	
(*d*) Tramway	57			(4) Brick fields aud Ariel Creek Road		650	
		917		(5) Quarries		117	
(9) Tea		333		(6) Potteries		22	
			2,133	(7) Surki making		40	
III. SUPERVISING ESTABLISHMENT—							1,708
(1) Jemadars		10		VI. ARTIFICER CORPS—			
(2) Tindals		72		(1) General Works		548	
(3) Peons and Umedwars		900		(2) Artificers' coolies		360	
(4) Jail		59					908
		1,041		TOTAL APPROPRIATED LABOUR			9,590
Less in Departmental employ		228					
			813	**DETAILS OF DISPOSABLE LABOUR.**			
IV. FIXED ESTABLISHMENTS—				Repairs to roads, bunds, sea walls; hay-making, gurgeon oil, etc.		589	
(1) Boatmen:				TOTAL DISPOSABLE LABOUR			589
(*a*) District	113						
(*b*) Ferries	68			GROSS TOTAL			10,179
(*c*) Officials	185						
		366					
(2) Private employ:							
(*a*) Paid	102						
(*b*) Free of charge	111						
		213					
(3) Superintendent's establishment		70					
(4) Station Office establishment		57					

APPENDIX B.

PHŒNIX BAY WORKSHOPS.

Average Labour Statement for 1901.

Head, Sub-head.	Daily average.		Head, Sub-head.	Daily average.	
SCHEDULE A.			(2) Fitting:		
WORKSHOPS.			(a) Fitters .	25	
I. GENERAL WORKS—			(b) Learners .	7	
(1) Engine Driver learners .	27			32	
(2) Firemen . . .	5		(3) Watch and clock repairers . .	2	
(3) Tailors . . .	2		(4) Boiler makers .	10	
(4) Water carriers . .	4		(5) Farriers . .	6	
(5) Wood cutters . .	2				118
(6) Coolies for conveying coal, etc. . .	4		V. LEATHER—		
		44	(1) Mochis . .	15	
II. MACHINES—					15
(1) Planing machine .	1		VI. SILVER—		
(2) Drilling machine .	3		(1) Silversmith . .	1	
(3) Punching machine .	1				1
(4) Screw-cutting machine .	1		VII. BRASS—		
(5) Turning:			(1) Braziers . .	4	
(a) Turners . .	6				4
(b) Learners . .	3		VIII. COPPER—		
	9		(1) Coppersmiths .	4	
(6) Sawing:			(2) Tinners . .	4	
(a) Band saw . .	1				8
(b) Circular saw .	1		IX. TIN—		
	2		(1) Tinsmiths . .	3	
		17			3
III. WOOD—			X. SUPERVISING ESTABLISHMENT—		
(1) Carpenters . . .	55		(1) Foreman Petty Officers . .	28	
(2) Coach-builders . .	2		(2) Foreman Tindals .	4	
(3) Wheel-wrights . .	2				32
(4) Coopers . . .	6		TOTAL WORKSHOPS .		345
(5) Pattern makers . .	2		SCHEDULE B.		
(6) Carvers . . .	24		FOUNDRY.		
(7) Designer . . .	1		(1) Moulding:		
(8) Polishers and painters .	6		(a) Moulders .	8	
(9) Turning:			(b) Learners .	6	
(a) Turners . .	2		(c) Coolies . .	3	
(b) Learners . .	2			17	
	4		(2) Brass moulders .	3	
(10) Saw sharpener . .	1		(3) Foreman Petty Officers .	2	
		103	TOTAL FOUNDRY .		22
IV. IRON—			SCHEDULE C.		
(1) Blacksmiths:			TANNERY.		
(a) Smiths . .	30		(1) Tanners . .	6	
(b) Hammermen .	20		TOTAL TANNERY .		6
(c) Learners . .	10		SCHEDULE D.		
(d) Coolies . .	8		LIME KILN.		
	68		(1) Burners . .	4	
			(2) Boatmen . .	9	
			(3) Coolies . .	48	
			TOTAL LIME KILN .		61
			TOTAL PHŒNIX BAY WORKSHOPS.		434

APPENDIX C.

FEMALE JAIL.

Average Labour Statement, 1901.

Head, Sub-head.	Daily average.		Head, Sub-Head.	Daily average.	
I. INEFFECTIVE—			(2) Tailors :		
(1) Sick and detained in Hospital.		35	(*a*) Cotton clothing . 5 (*b*) Woollen clothing . 3	8	
(2) Lunatics . . .		2	(3) Cotton workers :		
(3) Not available for labour:			(*a*) Preparers or openers.	8	
(*a*) Invalids . .	6		(*b*) Spool winders	24	
		6	(*c*) Warp makers .	6	
		43	(*d*) Warp joiners .	4	
			(*e*) Reel winders .	8	
			(*f*) Beaming machine	8	
			(*g*) Warp brushers .	7	
			(*h*) Warp dressers .	7	
			(*i*) Heddle makers .	2	
				74	
II. SUPERVISING ESTABLISHMENT—			(4) Wool workers :		
			(*a*) Warp makers . 3 (*b*) Spinners . . 44	47	
(1) Tindalans . . .		5	(5) Starchers :		
(2) Dafadarnis . .		22	(*a*) Cotton starchers . 3 (*b*) Blanket starchers . 3	6	
		27			216
III. FIXED ESTABLISHMENT—					
(1) Clothing godown .		4	V. OUTDOOR LABOUR :		
(2) Mehtaranis . .		5	(1) Coolies on roads, etc., and convalescents.	34	
(3) Hospital :			(2) Wheat cleaners	15	
(*a*) Cooks . .	1				49
(*b*) Ward coolies .	3				
		4			
(4) Cooks :					
(*a*) Gang cooks .	4				
(*b*) Splitting and carrying wood.	1				
(*c*) Boiling and carrying water.	4				
		9			
(5) Guards :					
(*a*) Gates . .	3				
(*b*) Barracks . .	4				
(*c*) Children . .	2				
		9			
		31	TOTAL IN FEMALE JAIL .		366
IV. INDOOR LABOUR—					
(1) Weavers :					
(*a*) Cotton clothing .	66				
(*b*) Blankets . .	15				
		81			

APPENDIX D.

Results of enquiry into the Caste History of Local Born Men and Women in the Penal Settlement at Port Blair.

APPENDIX

Results of enquiry into the Caste History of Local Born

Man's initials.	Caste as stated by himself.	Father.			Mother.		
		Statements in Registers.			Statements in Registers.		
		No.	Caste.	District.	No.	Caste.	District.
J. B.	Ahir	14,228 A	"Hindu"	Unao.	18,055 A	Ahir	Gorakhpur.
K. L.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
B. D.	Do.	15,177 A	Do.	Do.	15,370 A	Do.	Unao.
L. B.	Do.	18,362 A	Ahir	Ranchi.	24,636 A	Do.	Bareli.
N.	Do.	15,146 A	Goddu	Sonthal Perg.	22,891 A	Gowala	Bardwan.
R.	Baghdi	4,714 A	"Hindu"	Hugli.	15,288 A	"Hindu"	Chota Nagpur.
S.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
H.	Bairagi	10,097 A	Not given	Ganjam.	14,622 A	Bairagi	Raipur.
B.	Bania (Radhi)	6,873 A	Not noted	Not noted.	16,138 A	"Sivite"	Nagar (Mysore).
R. N.	Bania	11,803 A	"Hindu"	Sitapur.	18,093 A	Bania	Ajmer.
H.	Do.	Do.	Do.	Do.	21,904 A	Ahir	Eta.
D.	Bhanjara	6,397 A	Wanjari	Berar.	19,358 A	Kurmi	Rai Bareli.
M.	Bind	5,968 A	"Hindu"	Hugli.	17,605 A	Jat	Ajmer.
R. R.	Brahman	7,935 A	Brahman	Amraoti.	18,634 A	Brahman	Rajamandri.
R.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
V.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
B. P.	Do.	18,539 A	Bairagi	Mathura.	24,875 A	Do.	Mirzapur.
R. P.	Chamar	13,546 A	Chamar	Ambala.	18,885 A	Chamar	Abu.
B.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
B. D.	Do.	15,215 A	"Hindu"	Bareli.	26,156 A	Do.	Mirzapur.
S.	Dosadh	5,182 A	Dosadh	Purneah.	13,154 A	"Hindu"	Hoshangabad.
R. K.	Do.	5,180 A	Do.	Do.	15,874 A	Ahir	Ghazipur
R. C.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
M.	Gararia	9,489 A	"Hindu"	Sholapur.	15,312 A	Chetty	Bellary.
I.	Hajam	25,050 A	"Barber"	Cuttack.	16,926 A	Maratha	Nasik.
R. N.	Kachi	15,041 A	"Hindu"	Sitapur.	19,154 A	Kunbi	East Berar.
S. R.	Kaith	7,230 A	Kollita	Hugli.	10,277 A	"Hindu"	Raipur.
L.	Do.	14,812 A	"Hindu"	Cuttack.	19,395 A	Maratha	Puri.
R. L.	Do.	11,971 A	Do.	Do.	16,941 A	Bostom	Hugli.
A. L.	Do.	7,673 A	Do.	Gaya.	15,882 A	Lohar	Fatehgarh.
K. B. D.	Do.	5,832 A	Kaibarth	Hugli.	12,149 A	"Hindu"	Gaya.
D. S.	Khatri	410 A	Not stated	Lahore.	14,802 A	"Hindu"	Cuttack.
S. R.	Do.	11,545 A	Khatri	Jalandhar.	8,747 A	Maratha	Satara.

D.

Men and Women in the Penal Settlement at Port Blair.

Wife's initials.	Caste as stated by her husband.	Father. Statements in Registers. No.	Caste.	District.	Mother. Statements in Registers. No.	Caste.	District.
S. D.	Ahir	19,463 A	Ahir	Benares	20,440 A	Ahir	Faizabad.
...	Unmarried.	...	...	...	...	...	...
...	Do.	...	...	...	...	...	...
S. D.	Ahir	20,105 A	Ahir	Ghazipur.	2,201 B	Ahir	Allahabad.
R. D.	Do.	14,429 A	"Hindu"	Lucknow.	22,082 A	Do.	Cawnpore.
R. D.	Dosadh	5,180 A	Dosadh	Purneah.	15,874 A	Ahir	Ghazipur.
...	...	...	...	...	...	...	...
...	Unmarried.	...	...	...	...	...	...
...	Unmarried.	...	...	...	...	...	...
B.	Lohar	17,519 A	Lohar	Manbhum	1,026 B	Lohar	Cawnpore.
...	Unmarried.	...	...	...	...	...	...
...	Unmarried.	...	...	...	...	...	...
P.	Thakur	8,386 A	"Hindu"	Sultanpur	10,189 A	"Hindu"	Gorakhpur.
L.	Brahman	17,790 A	Brahman	Kolar	21,676 A	Brahman	North Arcot.
J.	Do.	19,438 A	Do.	Cudappah	25,538 A	Do.	Chingleput.
C.	Do.	16,786 A	Do.	Cuttack	25,055 A	Do.	Tippera.
J.	Do.	3,005 B	Do.	Indore	3,125 B	Do.	Rai Bareli.
...	Unmarried.	...	...	...	...	...	...
...	Do.	...	...	...	...	...	...
...	Do.	...	...	...	...	...	...
G.	Nama Sudra.	10,327 A	"Hindu"	Faridpur.	16,935 A	Chandal.	Rajshahai.
N.	Baghdi	4,174 A	Do.	Hugli.	15,282 A	"Hindu"	C. Nagpur.
J.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
...	Unmarried.	...	...	...	...	...	...
...	Unmarried.	...	...	...	...	...	...
...	Unmarried.	...	...	..	...	...	...
I. D.	Kaith	13,192 A	"Hindu"	Bankura.	21,147 A	Lohar	Allahabad.
K. D.	Gararia	19,091 A	"Shepherd"	Sitapur.	2,201 B	Ahir	Do.
C.	Thakur	Parents free: caste not stated.			...	...	...
J. K.	Do.	3,611 A	Thakur	Jhansi.	15,287 A	Ahir	C. Nagpur.
S.	Kaibarth (Uriya).	17,443 A	Kaibarth	Midnapur.	18,346 A	Kurmi	Lucknow.
I. D.	Ahir	14,228 A	"Hindu"	Unao.	18,256 A	Ahir	Gorakpur.
R.	Thakur	410 A	Not stated.	Lahore.	14,802 A	"Hindu"	Cuttack.

APPENDIX

Results of enquiry into the Caste History of Local Born

Man's initials.	Caste as stated by himself.	Father. Statements in Registers. No.	Caste.	District.	Mother. Statements in Registers. No.	Caste.	District.
C. L.	Kumhar .	4,640 A	Kumhar .	Cawnpore.	9,050 A	Kahar .	Jabalpur.
S. D.	Kurmi . .	17,468 A	Kunbi .	Damoh	21,095 A	Koshti .	Nagpore.
R. C.	Do. . .	Do.	Do. .	Do.	Do.	Do. .	Do.
M. S.	Do. . .	9,291 A	Not stated.	Mangalore.	15,675 A	"Hindu" .	Dharmsala.
L.	Do. . .	4,390 A	Maratha .	Hyderabad.	7,855 A	Do .	Nellore.
E. S.	Kursa . . (Telugu).	9,680 A	"Hindu" .	Cuddapah.	Free : local born ; caste not stated.		
S.	Lohar . .	14,882 A	Not stated.	Coimbatore.	22,701 A	Palli .	Tinnevelly.
B. R.	Maratha .	Free : caste not stated.			18,984 A	Maratha .	Ratnagari.
R. B.	Mehtar (Hindu)	15,472 A	Mussalman	Allahabad.	17,995 A	Bhinjio .	Surat.
K.	Do. do.	8,366 A	Bhangi .	Simla.	15,619 A	Musalman	Gujranwala.
D.	Do. do.	Do.	Do. .	Do.	Do.	Do. .	Do.
J. G.	Nama Sudra .	10,327 A	"Hindu"	Faridpur.	16,935 A	Chandal .	Rajshahai.
R. L.	Nonia . .	7,238 A	Baghdi .	Bardwan.	10,745 A	"Hindu"	Rai Bareli.
L. B.	Pasi . .	3,112 A	Pasi . .	Oudh.	10,779 A	"Hindu"	Champaran.
H. L.	Do. . .	Do.	Do. .	Do.	Do.	Do.	Do.
M. S.	Rajput .	8,353 A	{Musalman with Hindu name}	Ambala.	15,366 A	Brahman .	Mainpuri.
G. S.	Do. .	8,614 A	Kanait .	Do.	20,999 A	Thakur .	Shahjehanpur.
S. B.	Sonar . .	4,572 A	"Hindu"	Benares.	5,941 A	Not stated	Jhansi.
B.	Do. . .	Do.	Do. .	Do.	Do.	Do.	Do.
J. S.	Do. . .	11,455 A	Sonar .	Firozpur.	16,100 A	Sonar .	Nagpore.
R. S.	Do. . .	Do.	Do.	Do.	Do.	Do. .	Do.
R S.	Do. . .	Do.	Do.	Do.	Do.	Do. .	Do.
A. S.	Do. . .	Do.	Do.	Do.	Do.	Do. .	Do.
B.	Teli . .	6,853 A	Teli . .	Benares.	15,970 A	Teli . .	Partabgarh.
N.	Telingi . .	13,013 A	Not stated .	Mangalore.	16,128 A	Salidi .	Vizagapatam.
S. R.	Thakur . .	4,585 A	"Hindu"	Delhi.	14,997 A	Gomti .	Surat.
T. R.	Do. . .	Do.	Do.	Do.	Do.	Do. .	Do.
R. C.	Not known .	Parents dead : caste not traced.			...	...	...
L.	Do. .	18,674 A	Erikela .	Cuddapah.	24,563 A	Dher .	Bharoch.
H. L.	Do. .	8,306 A	"Hindu" .	Ambala.	1,540 B	"Hindu Barber."	Jalandhar.
H. (Hindu name.)	Musalman (convert.)	4,642 A	"Hindu" .	Eta.	12,147 A	"Hindu"	Sambalpur.

D—*continued.*

Men and Women in the Penal Settlement at Port Blair.

Wife's initials.	Caste as stated by her husband.	Father. Statements in Registers. No.	Caste.	District.	Mother. Statements in Registers. No.	Caste.	District.
B.	Kumhar .	Parents dead : not traced.			...	...	...
...	Unmarried.	...	...	...	...	...	...
...	Do.	...	...	...	...	...	...
B. K.	Bania . .	17,205 A	Bania .	Muradabad.	20,996 A	Bania .	Allahabad.
G. S.	Kachi . .	17,010 A	Ahir . .	Benares.	15,883 A	Dosadh .	Jaunpur.
A.	Kursa . .	7,819 A	"Telugu" .	Vizagapatam.	9,975 A	No trace in records.	
...	Unmarried.	...	...	...	...	...	...
L.	Kunbi . .	14,703 A	"Hindu"	Konkan.	19,706 A	Kunbi .	Karwar.
...	Unmarried.	...	...	...	...	...	...
S.	Mehtar . .	15,849 A	"Hindu"	Mainpuri.	17,995 A	Bhinjio .	Surat.
J.	Do. .	Do.	Do.	Do.	Do.	Do. .	Do.
...	Unmarried.	...	...	...	...	...	...
...	Unmarried.	...	...	...	...	...	...
J.	Pasi . .	Parents	dead : caste	not traced.	...	...	...
G.	Bania . .	21,950 A	"Hindu"	Kaladgi.	...	Not traced	...
B. D.	Rajput . .	10,778 A	"Hindu"	Champaran.	19,845 A	Bachal .	Azimgarh.
L.	"Not known"	5,968 A	"Hindu"	Hugli.	17,605 A	Jat . .	Ajmer.
R.	Nonia . .	7,238 A	Baghdi .	Bardwan.	10,745 A	"Hindu" .	Rai Bareli.
...	Unmarried.	...	...	...	...	...	...
...	Do.	...	...	...	...	...	...
...	Do.	...	...	...	...	...	...
...	Do.	...	...	...	...	...	...
...	Do.	...	...	...	...	...	...
...	Do.	...	...	...	...	...	...
...	Unmarried.	...	...	...	...	...	...
...	Unmarried.	...	...	...	...	...	...
B. D.	Dosadh . .	5,182 A	Dosadh .	Purneah.	13,154 A	"Hindu" .	Hoshangabad.
R.	"Not known"	19,554 A	Koravan .	Cuddalore .	21,760 A	Idiansiva	Madura.
P. D.	Thakur . .	Parents	free : caste	not stated.	...	...	...
R. D.	Kori . .	5,786 A	"Hindu"	Baiswara.	15,368 A	Thakur .	Mainpuri.
P. (Hindu name.)	Musulman (convert).	Parents	dead : caste	not traced.	...	...	...

INDEX.

PAGE

A

Adajig a "creek-dweller" Andamanese . . 51
Adoption among the Andamanese, effects of . 51
Aetas, the affinity of, to the Andamanese . . 47
Agencies, Government, in the Nicobars . . 201
Andaman, origin of the word 44f
Andaman and Nicobar Chief Commissionership, 363; Regulation, history of the, 359f; Manual 364
"Andaman Commission," the 361
Andaman Committee, the 45
Andaman, Great, the term explained . . 36
Andaman forests, note on the, 42; general character of the 43f
Andaman Islands, history of, 44ff:—bibliography of the vf:—Ancient notices of, 44; ancient Greek names for the, 44:—doubtful Hindu legends of the, 34:—Old Andamanese legends regarding, 35; mediæval and modern notices of the, 45; the Eighteenth Century Settlement, 361; modern history of the people, 45:—origin of the first occupation of, in 1789, 45; origin of the second occupation of, in 1858, 45; cause of making it a Penal Settlement, 45; foundation of Chief Commissionership . 46
Andaman Islands, General Geography of the, 34:—part of a sub-marine range, 34f; possibly formerly connected with Burma by land, 35:—surveys of the, 37; area of, 34; general physical aspect of, 1:—the straits separating the, 36; harbours in the, 36f; the mountains of the, 37; the beautiful scenery of 37
Andaman Islands, General Geological Notes on the, 40ff:—earthquakes in 41
Andaman Islands, reported subsidence of the . 41
Andaman Islands, Economic Zoology of the, 42:—marine fauna of, 42:—conchology of the, 42:—description of the principal timbers of the, 42f; imported flora of the 43
Andaman Islands, Meteorology of, 37ff; commercial value of the meteorology, 37f:—General Meteorological statistics, 40; climate of, 38; weather in, 40; rainfall at 38f
Andaman, Little, the term explained, 36; ancient mediæval names for the 44
Andaman Orphanage 363
Andaman Sebundy gorges, the 361
Andaman paper money 362
Andaman Sea, its nature described, 35; submarine contours of the . . . . . 35f.
Andaman Tokens, the 362
Andamanese, Census Totals of, 26:—returns, final and provisional, 5ff; use of coloured beads to check returns, 5:—defects in the enumeration of, 5:—statement of detailed population of the, 27ff:—density figures for the, 6; method of arriving at former density of the, 9; estimated former density of the, on the soil, 8:—Census Tours, Reports of the, 15ff; orders relating to the Census of the, 11ff:—attitude towards the Census, 5:—former population of, 7ff:—future prospects of the race 10
Andamanese, Ethnography of, 47ff:—are Negritos of very ancient type, 47; place in the scale of savages, 47:—race affinities of the, 47; and Semangs, points of difference and agreement between 66
Andamanese, the Twelve Tribes of the, 49f; the three groups of Tribes, 50; distinction between the groups, 50f:—amalgamation of the Tribes of the, 49f:—former isolation of the Tribes, 51:—Tribal Distribution of the, 31ff:—Septs in the Tribes of the, 51:—jungle-men among the, 51; long-shore-men, among the 51
Andamanese, antiquity of the, on their present site, 47; early descriptions of the, 48; tradition points to an ancient cataclysm, 48:—never cannibals, 48:—murders of strangers by the, 45; physical characteristics of the, 53f:—

PAGE

appearance of the, 58f:—high temperature, 55:—Ages of the, 55f:—Breathing, 55:—description of their bodily parts, 56; hair, 56; skin 56
Andamanese, general capacities of the, 61:—fighting capacity, 52:—endurance, 56; power of reproduction, 56:—diseases amongst the, 56ff; medicine amongst the, 58:—food . . . 56
Andamanese, mental capacities of the, 60:—quickly lose capacities and habits, 51:—sense development among the, 959:—Nomadic habits of, 1:—as trackers and forest-men 74
Andamanese, mental characteristics of the, 59ff:—character of the, 59f:—expression of tribal feeling among the, 51:—expression of the social emotions by the, 60f:—honorifics among the 65
Andamanese, religion of the, 62ff:—mythology of the, 63:—superstition among the, 63:—initiatory ceremonies among the, 63f:—death ceremonies of the 65f
Andamanese, amusements of the, 64:—music of the, 64:—mode of dancing, 64:—songs of the, 64:—games of the 64
Andamanese, arts of the, 66ff:—personal ornamentation, 66; domestic ornamentation, 66:—dwellings of the, 61f:—wood work among the, 66:—cane work, among the, 66:—weapons of the, 66:—weaving, 66:—string-making among the, 66:—net-making the, 66:—pottery . . 66
Andamanese, government among the, 62:—sexual family relations of the, 64:—naming customs of the, 64f:—marriage relations 65
Andamanese, their relations with the English, 53; established policy towards the, 10:—home, 1, 53; grammar, 98:—history of the study, 98:—agglutinative, principle, 107:—limited pre-inflexion, 112f.:—correlated variation (concord), 113:—elliptical forms of speech, 103:—phonology 115
Andamanese grammar, examples of sentences of one word, 103:—order of sentence, 104f; order of connected sentences, 105:—interrogative sentences, 105:—subject and predicate, 104:—personal pronouns, 112:—Andamanese grammar, functions of words, 104; expression of functions, interrelation of words, 105:—principal and subordinate words, 104:—composition of words 107
Andamanese grammar, use of affixes, prefixes, infixes and suffixes, 106:—prefix system, 110f; general sense of prefixes to roots, 111f; use of the prefixes to roots, 109f.; prefixes to words denoting objects, 111; prefixes to words denoting the human body, 110; prefixes of plurality, 113f; use of prefixes to differentiate connected words, 106:—expression of intimate relation, 105f; prefixes of intimate relation, 110; functional suffixes, 114; qualitative suffixes, 114; use of qualitative suffixes, 166f; recovery of the lost roots which are not functional suffixes . 114f
Andamanese, languages of the, 96ff; general description, 96f:—history of the written form, 115:—their place in philology, 96:—their position in "Grammar", 103:—are "Savage", 96f; a specimen of, 97f:—are agglutinative, 97:—minute in detailed terms, 97:—dialectic peculiarities, 115f; identity of the languages of the Southern group, 107f; identity of Northern and Southern groups, 116; identity of the outer and the other groups, 120:—effect of anthropomorphism upon, 109:—etymology . 109ff
Andamans and Nicobars, Census Total for the whole 285
Anderson, Captain A.R.S., report on the Andaman Census Tours, 16ff, 23f; his diaries of the Nicobar Census Tour 163f
Arab descriptions of the Andamanese, early . 48
Arrows among the Andamanese 50
Artificer corps, the 373
Aryoto, a "long-shore" Andamanese . . 51

PAGE

B

Balawa Tribe, figures right for the . . . 6
Barren island, situation of, 34:—belongs to the Andaman group, 35; belongs to the immediate Sunda group of volcanoes, 35:—bibliography of vii
Barwell, General C. A. his administration . . 364
Baskets among the Andamanese . . . 50
Bayley, Sir Clive, his share in consolidating the Penal System 359
Bea Tribe, figures right for the, 6:—language of the, used in the report, 48f:—names for all the tribes 49
Beds, varieties of, among the Andamanese . . 51
Bencoolen, the first Penal Settlement . . . 360
"Bencoolen rules," the 360
Betel in the Nicobar Islands, use of . . . 171
Bibliography of the Andaman Islands, v f; note on the, of the islands iv
Blair, Archibald, fixes on Port Blair for the settlement of 1789, 45; his reports on the Andamans 45
Bojigngiji, Southern group of Andamanese Tribe 50
Bojigngiji group, Southern group of Andamanese languages 107f
Bonig, Mr., Report on the Andaman Census Tours, 20f, 25:—his work with the Jarawas, 69ff, 86ff:—his diaries relating to the Jarawas 77f
Bow among the Andamanese 50
Briton, the, wreck of the, at Andamans . . 45
Bronchites, common among the Andamanese . 57
"Butterworth Rules," the 360

C

Cadell, Colonel T., his administration . . 364
Camorta, Government agency at 201
Campbell, Mr. Scarlett, his reforms . . . 363
Cannibalism old charge of, against the Andamanese, investigated, 48:—ceremonial in the Nicobars 199
Canoes among the Andamanese . . . 51
Car Nicobar, Census taken by Mr. V. Solomon, Government Agent, 140:—Government agency at, 140, 201:—Chiefs of, 1901, 175ff; second chiefs of villages in, 175ff; list of chiefs and their deputies, 241:—a return of occupiers in 1901, 175ff. General Meteorological statistics of 134f
Caste, maintenance of, amongst the convicts. 372:—among convicts' descendants, birth and growth of, 400f; history of the "local born" an enquiry into the 407ff
Census, synchronous of the Andamans impossible, 1f:—list of places visited during the, 27:—Census operations, control of, in the Andamans, 2:—Tables, 1901, Nos. I to XVIII, 299ff:—Tables, 1891, Nos. I to XVI, and A. supplementary, 329ff:—Tables, 1881, Nos. I to XVIII 341ff
Census Tables, 1901, remark on No. I, area and totals, 289; remarks on No. II, variation, 290; remarks on No. III, towns and villages, 290; remarks on No. VI, religions, 290; remarks on No. VII, civil condition, 291; remarks on No. VIII, education, 291ff; remarks on No. X, languages, 293; remarks on No. XI, birthplace, 294f; remarks on No. XII, infirmities, 296; remarks on No. XIII, caste, 296f; remarks on No. XV, occupations . . . 297
Census Tours in the Andamans, 2:—orders for the, in Appendix A to Chapter I, Part I . . 2
Ceremonies, initiatory among the Andamanese . 63f
Chaitan, the nether-world of the Andamanese . 63
Chauga, an ancestral spirit among the Andamanese 63
Chariar Tribe, children understated . . . 6
Chiefs in the Nicobars, principles of appointing . 259
Chol, spirits of disease among the Andamanese . 63
Chowra, de Roepstorff's account of the people of, 170:—elephantiasis on 203
Clothing, female, among the Andamanese . . 50
Clouds, knowledge of the, among the Nicobarese . 205
Coal in the Nicobar Islands 182
Cocoanuts of the Nicobars, a report on the, 169; estimate of the number of, 171ff; estimate of the trade in, 174:—the currency of the Nicobarese, 219f:—Valuation of trade articles in, Nicobars 242f
Cocos Islands, geographically belong to the Andamans 35
Colebrooke, his travels in the Andamans (1789), 52:—his Andamanese vocabulary, 52; Ongē-Jarawa vocabulary of 1790, recovery of, 119f:—his knowledge of the Jarawas 52
Communities, the three separate, in the islands . iii
Convicts, description of, 369ff:—main general statistics regarding the, 370:—artificial conditions of the life of, 369:—their former occupations, 371; languages as a test of origin in, 293f; place of conviction as a test of origin in, 294; character of the, 373:—offences causing transportation, 373; offences of, nature of, 377:—liability to violent crime, 374f; effect of season on murderous tendency, 376f; their civil condition, 371:—female, their civil condition, 371:—educational condition, 370f:—ages of the, 370:—religions of the, 371:—maintenance of caste amongst the, 372; prevalent diseases amongst, 386:—insanity amongst, 377f; —sickness and mortality amongst the, 383ff; artificiality of the mortality returns of, 383; causes governing annual health returns of, 386; health returns, causes of variation in, 385f; health of, men in cycles, 385:—effect of personal character on the health of, 390; effect of length of residence on the health, 386f; effect of mode of working on the health of convicts, 390; effect of varieties of labour on the health of, 391ff; effect of rainfall on the health of, 383ff; effect of situation on the health of, 394ff:—results of an enquiry made in 1876 into the health of, 398f:—classes of, 287f, 372f; administrative divisions of the, 372f; commissariat divisions of the, 372; economic divisions of the, 372; financial divisions of the, 372:—cost of the, 358:—disciplinary gangs among the, 373; "connected," 373:—labouring, 378ff; labouring, nature of labour, 378; labouring, labour statistics, 378f:—marriages, explained, 400; descendants, the, 399ff; character of the, 402; occupations of . . 402f
Corbyn, Revd. H. establishes friendly relations with the Andamanese 362
Cornwallis, Port, originally the name of Port Blair 45
Creation tales of the Nicobarese not indigenous . 211
Cycus, a report on the, in the Nicobars, as a food 169
Cyclones at the Andamans, note of, 38; warnings of, from the Andamans 37f

D

"D" Ticket 373
Dalrymple Bank, geography of 34
Dampier, his account of the Nicobarese in 1688 . . . . . 199, 221ff
Dancing, various modes of Andamanese . . 51
Davies, Colonel Nelson, his report on the Penal Settlement 362
Day, divisions of the, among the Nicobarese . 204f
De Roepstorff, Mr. A., his report on the Central Nicobars, 1881, 169ff:—his Census of the Nicobarese in 1883, 139:—his note on the Shom Pea, 1883, 240:—his Nicobarese Calendar, 250; his tale of Shoān 230f
"Devil murder" in the Nicobars, 206, 210:—Details of, for 20 years 232ff
Diaries of officers, Andaman Census, in Appendix B, Chapter I, Part I 2
Diarrhœa, common among the Andamanese . 57
Direction, expression of, by the Nicobarese . . 205
Distance, expression of, by the Nicobarese . . 205
D'Oyly, Mr. H. H., Report on the Andaman Census Tours, 18f, 24; his diaries of the Nicobar Census Tour 164ff

E

Elephantiasis on Chowra Island 203
Elpanaca, the village public ground in the Nicobars 207, 216
Emily, the wreck of, at the Andamans . . 45

PAGE

Enumeration, method of, in the Andamans . . 3
Epidemics among the Andamanese . . . 58
Erem-chauga, the Andamanese forest spirit . . 63
Eremtaga, a "jungle" Andamanese . . . 51
"Ex-convict," the 399

F

Female Jail, a labour statement of the . . 406
Fire legend in Andamanese, 103f:—in the Southern Andamanese group . . . 137
"Flower-names" of Andamanese girls . . 65
Folktales of the Nicobarese 211
Food among the Andamanese 51
Ford, Colonel B., his administration . . . 362
Forest Department in Port Blair . . . 379
"Free" in the Penal Settlement . . . 355
Free Residents in Port Blair 399ff

G

Ghosts in the Nicobars 207
God, ideas of, among the Nicobarese . . . 206
Grammar, Theory of Universal, 255:—briefly explained, 98ff:—in detail, 122ff:—diagrams illustrating, 101f, 127ff:—a table of terms used in the, 101:—skeleton of, 124ff:—place of Andamanese in 103

H

Hair, various modes of treating the, among the Andamanese 50
Harpoons among the Andamanese . . . 50
Haughton, Colonel J. C., his administration . 361f
Health cycles in Port Blair 385
Helfer, Dr., murder of, at the Andamans . . 45
Henta, superstitious objects of the Nicobarese . 207f
Homfray, Mr. J. N., his management of the Andamanese 362
Hopkinson, Captain, his Report on the Andaman Islands 46
Horsford, Colonel N. M., his administration . 365
Huts among the Andamanese 51

I

Implements, variation of, among the Andamanese 50
Invisible Bank, geography of 34
I-Tsing, his description of the Andamanese, 48; describes the Nicobarese 198

J

Jarawas, an account of the hostile tribe of the, 52f:—hostility to the Census, 5; affray with the, 5; their raids on the Penal Settlement, 53, 68:—their spread over Great Andaman, North Sentinel and Rutlam Island, 6:—their numbers estimated, iii; estimate of, method of, 3f; estimate of, reasons for, 2; over-estimated 9
Jarawas, camps, descriptions of various, 81, 82, 83, 84, 85; of the South Andaman, have no canoes, 51; of the North Sentinel have canoes, 51:—list of articles taken from, 88f:—description of communal hut, 73f:—superstitions, understood by other Andamanese, 83:—papers connected with the, in 1902, 69ff:—Colebrooke's knowledge of the (1789), 52:—Vocabulary of 1790, recovery of Colebrooke's . 119f
Jaruwin, the Andamanese spirits of the Sea . 63
Juwai Tribe, figures right for the 6
Kareau, a spirit-scaring image in the Nicobars 209

K

Kede Tribe, figures right for the 6
Kitchen-middens of the Andamanese, 47f; their value in estimating the population . . . 9
Kol Tribe, figures right for the 6
Kora Tribe, discovery of the 6
Kora Tribe, children understated . . . 6
Kyd, Major, Superintendent of the Andamans, 1792—6, 45; his Reports on the Andamans . 45

PAGE

L

Labour of convicts, a statement showing the daily 404
Lethbridge, Sir A., his share in consolidating the Penal System 359
"Local-born," the=convicts' descendants, 295f., 399ff.; an enquiry into the caste history of the 407ff
Lyall, Sir C. J., his share in consolidating the Penal System 359
Lyall-Lethbridge Commission 364

M

Mafai, the Nicobarese "novice" 210f
Maia Tomola, "ancestor" of the Andamanese . 35
Malaria, the main disease among the Andamanese, 57; its effect on new arrivals in Port Blair, 387:—chief disease of the Nicobar Islands . 203
Man, General H., founds the Penal Settlement, 361:—his second administration, 363; his share in consolidating the Penal System . 359f
Man, Mr. E. H., Report on the Andaman Census Tours, 15f, 22f:—his management of the Andamanese, 364:—his enquiry into the Andamanese, 55:—his share in the study of Andamanese Grammar, 98:—his diaries of the Census Tours in the Nicobars, 160ff:—his Census of the Nicobarese in 1883, 139:—Report on the British Penal Settlement in the Nicobars, 188ff:—his enquiries into the Nicobarese 201
Marine Department in Port Blair . . . 379f
Marriage custom among Hindu convicts' descendants 401
Marriage relations, inter-tribal, among the Andamanese 51
Marriages of convicts 400
Mayo, Lord, his reform, 363; his murder . 46, 363
McNair, Major, his share in creating the Penal System 360
Menluana, Nicobarese priest . . . 206, 210f
Metamorphosis among the Andamanese . . 63
Metempsychosis among the Andamanese . . 63
Mincopie, explanation of the term, 52f:—derivation of the term 120f
Molesworth, Major W. S., his enquiry into the Andamanese 53f
Morowin, the Andamanese "angels" . . . 63
Mouat, Dr. F. J., his Report on the Andaman Islands, 1858, 361; his share in founding the Penal Settlement 45
Murray, Mr., attempted murder of, by an Önge . 94f

N

Names, tribal, for each other among the Andamanese, 48f; meanings of the . . . 49
Nacowry Harbour, Government agency at, 140:—General meteorological statistics of . 184
Narcondam, situation of, 34; belongs to the Arracan Yomas, 35:—belongs to the General Sunda group and to the immediate Pegu group of volcanoes, 35:—bibliography of . vii
Napier of Magdala, Lord, his share in consolidating the Penal System, 359:—his reforms in the Penal System 362
Nicobar, origin of the name 185
Nicobar Island, Chief Commissioner's orders for the Census, 155f; instructions for the Census, 157f; notes for the Census, 159:—Census Tours in the 140
Nicobar Islands, General Geography of, 179:—never connected with Sumatra or the Andamans, 35:—a relative situation of the, 139:—surveys of, 181; general features of the, 180f; harbours and anchorages, 181; rivers and streams, 181:—their natural productiveness, 202; Mr. Man's observations on the soil of the, 197; relation of soil to vegetation, 182; forests of the, 183; imported flora . . 183
Nicobar Islands, geological reports on the, 181; Dr. Von Hocksteller's views of the geology of, 182; Dr. Rink's views of the geology, 181f:—earthquakes in, 182:—marine and land fauna, 182f:—Economic zoology of, 183:—conchology of 182

PAGE

Nicobar Islands, commercial value of the meteorology, 183:—climate of, 183; weather in, 183; rainfall 184
Nicobar Islands, cultivation in the 169f:—rice as a food in the, 169:—domestic animals in the, 169; poultry in the, 169; wild and domestic pigs in the 169
Nicobar Islands, inhabitants divided into natural groups, 140:—list of chiefs in 1901, 153f:—list of villages in 1901, 153f:—foreign residents in, 146f:—health of the Penal Settlement, 187:—property in the, 173f; land tenure in the, 173f:—necessities for trade in, 171; liquor trade in the, 173:—manufactures in the, 170:—piracy in 186
Nicobar Islands, history of, 185ff:—bibliography of, viif:—ancient accounts of, 185:—I-Tsing's account of, 185:—old Arab accounts of, 185:—European accounts of, 186:—European occupation, story of the, 185f:—British Penal Settlement in, 186;—British colonisation, 187:—names of the, geographical and native, 179f:—ancient Greek names for, 185; old European names for the . . 180
Nicobar Islands, expedition of the Gulathea, 1846, 186:—expedition of the Novara, 1858, 186:—expedition of the Aurora, 1886 . 186
Nicobarese, Census totals of the, 26:—method of enumerating the, 141; control of the Census operations of the, 140:—returns of the, 142:—defects in the enumeration of, 146:—population stationary, 142:—house population, 144f:—size of villages, 145:—density by dialects, 143; density by islands, 143:—Census of the Captain Anderson's diaries, 163f; Census of the, Mr. Man's diaries, 160ff:—extent of the information procured at the Census, 141:—Census of the, in 1883, 139; totals in 1883, 148; details of deRoepstorff's tables of 1883, 149ff; comparison of Census, 1883 and 1901, 143:—movement of the people, 142; movement of the people between 1883 and 1901 . 145
Nicobarese ethnography of the, 198ff; a general description of the, 199:—an Indo-Chinese race, 198:—Mr. Man's enquiries, 201; Mr. Man's observations on the, 195f:—antiquity on their present site, 198f:—"Tailed" men, 185; origin of their "tails," 198:—charge of cannibalism, 199:—European names among the 212
Nicobarese, various types of population on the islands, 146:—divisions of the people, 142; six ethnological divisions of, 199; distinctions between the six ethnological divisions, 199f; division into four groups by habits of intercommunication, 142:—division into three groups by internal movement, 142:—Northern group=Car Nicobar, 142; Central group (Chowra to Nancowry), 142; Southern (or Great) group, 142; Shom Pen group, 142; division into three groups by language, 142f:—division into six dialects 142
Nicobarese, physical characteristics, 201ff; physical differences between islands, trifling, 201; physical capacities, 202; sluggish nature, 202; endurance, 202:—the ages of the, 201:—bodily parts, 203; hair, 203; skin, 203:—reproduction among the, 202:—recuperative powers, 203:—diseases, 203 f; medicine among the, is exorcism, 204:—food, 202:—stimulants 202
Nicobarese, mental characteristics, 204ff; mental capacity, 204:—linguistic capacity of the, 205f; mode of speech, 279:—sense, development of, 204:—character of, 204:—expression of the social emotions among the, 211f; suicide among the, 212:—the religion of the, is a fear of spirits, 206ff; superstitions of the, 206; common superstitious objects of the, 207f; attitude towards superstition, 207:—funeral customs, 208ff; Car Nicobar, 210, for the revered dead in Car Nicobar, 210; Southern, 208f; Chowra, 209f; tree-burial, among the 209ff
Nicobarese, social customs, 211ff:—naming customs of the, 212:—marriages among the, 212:—their mode of speech, 253; music of the, 213f; dances of the, 213:—feasts of the 213:—amusements of the, 213:—quarrels among the, 213:—greater staff fights among the, 213:—housing of the, 216:—their public buildings, 216:—dress of the people, 170:—clothing, 215:—personal ornaments 216
Nicobarese acts of the, 214ff:—manufactures of the, 214f:—their canoes, 215:—fire making 215
Nicobarese, system of government, 214; family system, 214:—property among the, 214:—heredity among the, 214:—continuity of their peculiarities, 199:—relations with the British, 200f; mode of control over, 200f; appointment of chiefs, 200f; jurisdiction of the chiefs . 145
Nicobarese, their commerce, 217ff; commercial scales, 218f:—system of currency, 219f:—external trade, 217:—internal trade, 217:—system of reckoning, 217ff; their system of reckoning examined in detail, 244ff; detail of system of reckoning the months, 249f; system of reckoning time 219
Nicobarese, dialects of the Central group used in the Report, 198:—comparison of words, 280f; comparison of roots 281f
Nicobarese language, history of the study, 251ff:—old grammars of, 251; old vocabularies of, 251f:—Mr. Man's enquiries, 252, 279; Mr. de Roepstorff's enquiries 279
Nicobarese language, their place in philology, 252:—is radically Indo-Chinese, 252, 284:—highly developed analytical form of speech, 253; its analytical nature explained, 266:—dialects of, 252:—foreign influences on, 252f:—specimens of 254ff
Nicobarese language, comparative philology, 282ff; comparison with Indo-Chinese, 282ff; comparison of dialects, 280ff:—phonology, 279:—mode of writing it 279f
Nicobarese language, grammar of, 255ff; order of speech, 266f; order of connected sentences, 261f; order of the words, 254, 258ff; order of the words is the essence of the grammar, 264:—use of position of words, 258:—nature of the verbs, 273:—pronouns, 260f:—prepositions, 262f:—connection of intimate relation, 263f:—numeral co-efficients, 265f:—compound words, 267f:—use of phrases, 265:—interrogatory speech, 259f:—elliptical sentences, 266:—functions of words, 257f; expression of the function of words, 262; expression of the interrelation of words, 262:—subject and predicate, 256f:—principal and subordinate words 257
Nicobarese language, etymology, 268 ff; difficult etymology, 254:—use of "form" in, 268; classification of words, 267f:—naturally connected words, 275f:—mode of attaching affixes, 269:—use of radical affixes, 268f; use of radical affixes of transfer, 269ff; correlated radical affixes of transfer, 272; working of correlated radical affixes, 274; use of radical affixes of differentiation, 274; differentiating radical suffixes of direction, 277f:—connectors of intimate relation used as prefixes, 273:—parts of the human body as affixes, 279:—duplication of affixes, 272f:—inflexion of affixes, 272:—the comparative degrees, 274f:—expression of "active" and "passive", 273f:—expression of continuing action, 275:—expression of time past, 278:—interrogatives of direction, 278:—groups of ideas round words, 276f; groups of words round ideas . . 276
Nila, evil spirits of the Andamanese . . 63
Novices among the Nicobarese . . . 210f
Norman, Mr. Henry, his reforms . . . 363f
North Sentinel Island, situation of . . . 34
Northern group=Yerewa group of Andamanese languages 116

O

Önges, their numbers estimated, iii; estimate of, reasons for, 2; estimate of, method of, 3f; under-estimated, 9:—Mr. Portman's accounts of the 91ff
Önge-Jarawa, outer group of Andamanese tribes, 50, 117:—words, list of 117ff
Ornamentation among the Andamanese . . 50
Ornaments among the Andamanese . . . 50
Ossuary feast in the Nicobars, 210; on Car Nicobar, details of the 226ff

PAGE

Outer groups=Önge-Jarawa group of Andamanese language 117

P

Padouk in the Andamans 43
Pandanus, a report on the Nicobars, as a food 169
Penal Settlement, totals for 1901, 285:—Census returns, 288; tables of 1881 and 1891 printed for comparison, 285:—arrangement for 1901, 285:—continuous Census, 286:—daily Census of the convicts, 287; the Strength Register, 286ff; morning reports of population, 286:—the annual Census, 288f:—"area" figures, 289:—previous Census operations . . . 285
Penal Settlement, physical geography, 353:—occupied and unoccupied area, 353:—forest and unafforested lands, 355; forest, 354; courts and harbours, 353:—hills, 354:—streams, 354:—communications, 353:—administrative geography 354
Penal Settlement, administrative system, 356ff:—Finance, 358:—administration of justice, 357:—division of, 354f; jails and hospitals, 356; stations and villages, 354f:—nature of the population, 356f; strongly marked division between free and convict, 355:—the languages used in, 365; the local vernacular is a corrupt Urdu 365f
Penal Settlement, history of, 359ff; placed under Burma, 1864—69 . . . . . 362f
Penal Settlement in the Nicobars, account of the, ... 188ff, 363
Penal system described, 357:—origin and history of, 359ff:—objects of, 358:—the law governing the, 360:—its effect on character . . 373f
"Penang Rules," the 360
Place-names, Andamanese and English, 27 . 31ff
Pneumonia, common among the Andamanese 57
Poles, village, use of in the Nicobars . . 208
Port Blair originally called Port Cornwallis, 45:—the harbour and its amenities, 355:—free population in, 399:—rainfall at, 38f; list of rain gauges, 39:—tides at 40
Port Cornwallis, the original name of Port Blair, 45:—origin of the present 45
Portman, Mr. M. V., his management of the Andamanese, 364f:—his enquiry into the Andamanese, 53f; his share in the study of Andamanese grammar, 98f:—accounts of the Önges 91ff
Pottery of the Andamanese 50
Preparis Islands, geographically belong to the Andamans 35
Priests among the Nicobarese 210f
Puluga, the Andamanese deity, 62; is the storm-god, 63:—as a living god among the Andamanese 63

Q

Quigley, his misleading account of the Andamanese 45

R

Raffles, Sir Stamford, founds the Penal System, 359f:—his original letters on the Bencoolen convicts 368
Rainfall, its effect on the health of convicts . 383ff
Rean, Dr. W. H., his enquiries into the health of Port Blair in 1876 . . . . . 398f
Report, first written of the Andamans and Nicobars Census, iii; follows its own line . iii
Returns, accuracy of the iii
Rogers, Mr. C. G., his work with the Jarawas, 69ff, 78ff, 87ff, 89f; his diaries relating to the Jarawas, 75ff; *Runnymede*, the wreck of, at the Andamans 45

PAGE

S

Self-supporters, the, 380:—distribution of, 380f; occupations of, 382; valuable as agriculturists 382f
Semangs, the, affinity of, to the Andamanese, 47; and Andamanese points of difference and agreement between 66
Settlement standing orders explained . . . 359f
Settlers in Port Blair 399ff
Shadow worships among the Nicobarese . . 206
Shom Pen, ethnology of the, 200:—de Roepstorff's account of the, 170:—numbers of, estimated, iii, 140; method of estimating the 141
Solomon, Mr. V, Government Agent, performs the Census of Car Nicobar 140
Soul, the, among the Andamanese . . . 62f
Southern group=Bojigngiji group of Andamanese languages 107f
Spelling of vernacular words, system adopted . iiif
Spirit-scaring among the Nicobarese . . 206
Spirits, cause of all evil, in the Nicobars, 206:—feasts, the family, in the Nicobars . . 206f
Stars, knowledge of the, among the Nicobarese 205
Stewart, Sir Donald, 1st Chief Commissioner of the Andaman Islands, 46:—his administration, 363:—his share in consolidating the Penal System 359
Stone implements among the Andamanese . . 66
Sunstroke among the Andamanese . . . 58
Superstitious objects in the Nicobars . . 207f
Superstitions, Nicobarese attitude towards . . 207

T

Tubo tribe, causes of the depopulation of . . 6f
Tabu among the Andamanese, 64:—in the Nicobars, 207:—effect of, on the Nicobarese languages 253
Temple, Colonel Sir Richard, his administration . 365
Tattooing, various forms of Andamanese . . 50
Ticket-of-leave, etc., self-supporter . . 380
Tin in the Nicobar Islands . . . 182
Tobacco in the Nicobar Islands, use of . . 170
Tomo, the first ancestor of the Andamanese . 63
Totals, Census, for all the islands . . 285
Trade in the Nicobar Islands, 171ff; returns of the Nicobars in 1857, 243; articles valued in cocoanuts in the Nicobars 242
Tytler, Colonel R. C., his administration . . 362

V

Vaux, Mr. Percy, death of, at the hands of the Jarawas, 69ff, 78ff:—his last diaries . . 70ff

W

Walker, Dr. J. P., his administration, 361:—his share in consolidating the Penal System . 359
Western Banks, the, geography of the . . 34
Wilson, Lieutenant N. F. J., his diaries of the Nicobar Census Tour, 166ff:—report on the Andaman Census Tours 19f
Wind, knowledge of, among the Nicobarese . 205
Workshops at Phœnix Bay, the, 379:—a labour statement of the 405
Wota-Emi, the ancient kitchen-midden at . 48

Y

Yere tribe, children understated . . . 6
Yerewa, northern group of Andamanese tribes . 50
Yerewa Group = Northern group of Andamanese languages 116

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