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VOLUME XX

HIMACHAL PRADESH

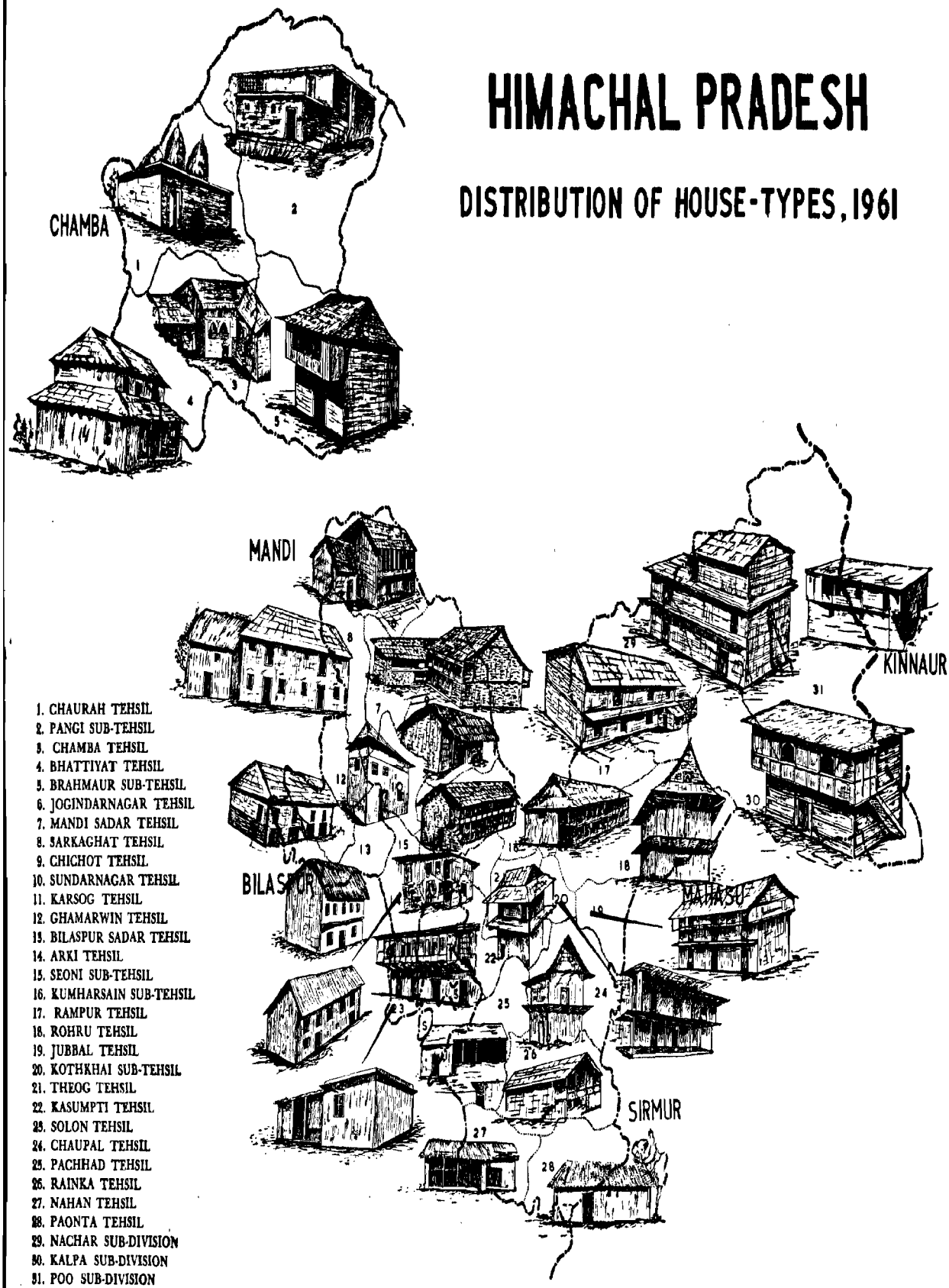
PART IV

HOUSING AND ESTABLISHMENTS

RAM CHANDRA PAL SINGH
of the Indian Administrative Service,
Superintendent of Census Operations,
Himachal Pradesh

HIMACHAL PRADESH

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PREFACE

"It has often been said that researchers become so engrossed in their field of study as to consider it critically important for the whole world to learn what they have learned". This is how Donald J. Bogue opens the preface of his book "Population of the United States". I have had a similar feeling since September, 1959. The obsession is spread in different fields of study but it is the Housing Report which has taken me a long time to understand to organise, compile and to go through the Pradesh right from one end almost to the other except Pangi. I have seen every conceivable kind of a house and the people who reside there, practically always leaving the village with the bewildering question 'why are these census people keen to know our housing conditions'. No study on Housing in Himachal Pradesh had ever been carried out. That was all the more reason for my engrossed hours of roaming about. It is for the first time that such a study is being carried out and it gives many a facts of houses in this fascinating Pradesh.

I do feel very sincerely that this book should be useful for every library interested in Himachal Pradesh. There has been a considerable variety of climate, heights, topography and there is an equal margin in the economics of the people. These economics are revealed to some extent in the patterns of houses. The study has taken me four and a half years to complete.

I owe this wonderful and rare assignment to Shri Asok Mitra, ICS, Registrar General, India. I have always received from him words of encouragement and magnanimity and have learnt so much from him.

Once this book is out, those who often wondered and put our visits to their houses and villages or towns as an act nearing eccentricity on my part, would realise what a laborious task this has been. I have had a unique fortune of seeing such a varied aspect of a fascinating Himachal Pradesh during my extensive tours over the past years. Whatever source I could think of, I tackled and whatever book I could think of, I sought inspirations from that to add drawings, material, photographs, printing of superb paintings and reproductions to make this an assorted material to be worthwhile of the readers' interest. There may be some defects in this report and I would seek the forgiveness of my readers because these could be my limitations. I am reminded of R. C. Trench's words "To make mistakes as we are on the way to knowledge is far more honourable than to escape making them through never having set out to seek knowledge".

I have received a great measure of warm generosity from strangers and colleagues whenever I approached them for information and material that I could add on Housing. They have sent me drawings, photographs, paintings and sketches.

Broadly, the material here has been presented in four parts. Parts I and II form the main report including E. Series Tables. Part III gives a special study of house types and villages and these are very profusely illustrated by maps, drawings, extracts, notes, photographs, reprints and sketches. Part IV forms the annexure which gives instructions about housenumbering and tabulation.

I owe a warm sense of gratitude to Shri D. Natarajan, Deputy Registrar General. He has always been helpful in his own unassuming ways. Dr. (Miss) P. Sen Gupta, Map Officer, has helped us by advising on cartography.

Shri K. D. Ballal, IAS, Central Tabulation Officer, has been very kind to simplify the complicated statistics and has shown a great patience in readnig all our tables that were referred to him every now and then. I also owe a gratitude to Shri Rikhi Ram Sharma, Assistant Superintendent of Census Operations and Shri Durga Singh, Office Superintendent, who has been a source of great help to me right from the very beginning. It has been to the lot of Durga Singh to assist me with his high sense of duty and patience, meticulous ways of doing things and in clearing up doubts which were many and often.

Shri P. S. Ramachandran has been so helpful to me and whatever material was sent to him was returned to us in a befitting and attractive manner. The Assistant Manager, Shri P. Lakshmipathi and his successors Shri Devi Singh and Shri N. K. Mudaliar have spent many a patientful hours over our manuscripts and proofs. To them and to their juniors Sarva Shri Narayanan, Y. Vishwanathan, D. N. Nag, Mohan Singh, Harsaran Das, Dev Vrat, Agya Ram and Durga Singh, I convey my warm and sincere thanks.

The statements and conclusions drawn by me do not represent the views of the Government.

Bosewell, Simla.
Basant Panchmi, 1965.

RAM CHANDRA PAL SINGH

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It would be voluminous for me to give all the names of sorters and compiler-checkers who came and left us and of Kanungos and Patwaris who prepared the house-lists. Others who were good enough to send photographs and reading material or who very generously wrote for us or sent photostat copies of their paintings or helped in our maps are:—

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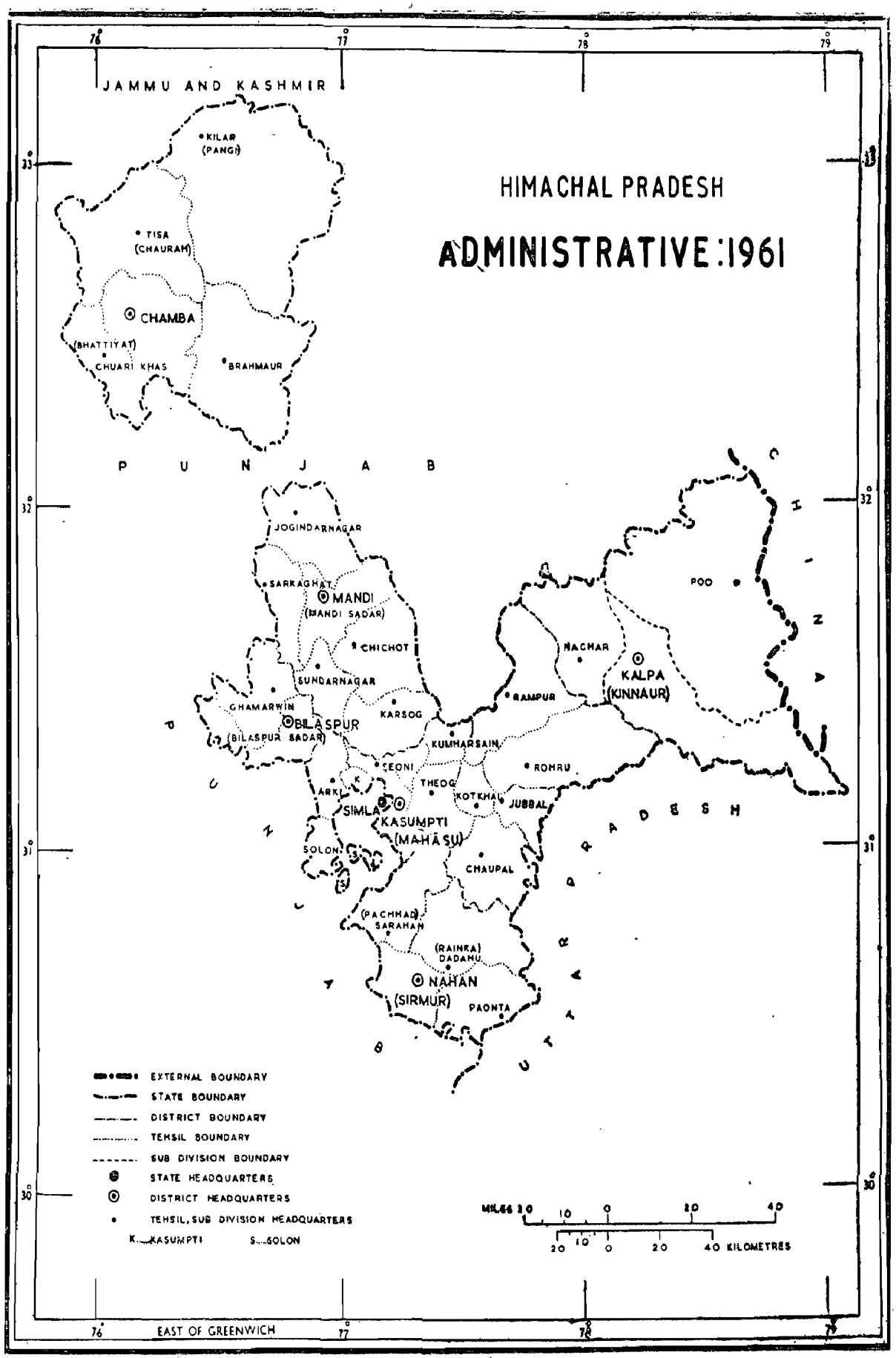
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HIMACHAL PRADESH
ADMINISTRATIVE: 1961
JAMMU AND KASHMIR
PUNJAB
UTTAR PRADESH
KILAR (PANGI)
TISA (CHAURAH)
CHAMBA
(BHATTIYAT)
CHUARI KHAS
BRAHMAUR
JOGINDARNAGAR
SARKAGHAT
MANDI (MANDI SADAR)
CHICHOT
SUNDARNAGAR
GHAMARWIN
BILASPUR (BILASPUR SADAR)
KARSOG
KUMHARSAIN
SEONI
THEOG
KOTKHAI
JUBBAL
ROHRU
RAMPUR
NACHAR
KALPA (KINNAUR)
POO
ARKI
SIMLA
KASUMPTI (MAHASU)
SOLON
CHAUPAL
(PACHHAD) SARAHAN
(RAINKA) DADAHU
NAHAN (SIRMUR)
PAONTA
EXTERNAL BOUNDARY
STATE BOUNDARY
DISTRICT BOUNDARY
TEHSIL BOUNDARY
SUB DIVISION BOUNDARY
STATE HEADQUARTERS
DISTRICT HEADQUARTERS
TEHSIL, SUB DIVISION HEADQUARTERS
K....KASUMPTI
S....SOLON
MILES 30 20 10 0 10 20 30 40
20 10 0 20 40 KILOMETRES
EAST OF GREENWICH
76° 77° 78° 79°
33° 32° 31° 30°

PART I

REPORT ON HOUSING AND ESTABLISHMENTS

CHAPTER I

INTRODUCTION

"Since there is a very close relationship between population trends and housing trends, persons who are interested in one of these subjects are, almost of necessity, interested in the other. The demographer needs to be informed concerning the residential situation and the living arrangements of the population, and the housing specialist must rely upon demography for an understanding of many of the forces that underly changes in the quantity and the distribution of housing. The processes of family formation and dissolution, and other social and economic processes that affect the number and the composition of households, are topics for population study." (Donald J. Bogue).

The primary need of man has always been food, clothing and shelter — all other needs being secondary. This report is an attempt to picture the relationship between the population trends and housing trends. In the complexity of our society, tremendous advances have been made and it is no longer the cave man architecture though basically he is a precursor of housing. As time passed, and depending upon the means, housing assumed somewhat expensive and complex characteristics. In Himachal the technology of housing is still traditional and its organisation in all its aspects simple. Houses in Himachal Pradesh also represent, to a large extent, much of what it grows. There has been a static condition and in different regions people have built certain types of houses whereas buildings built by Government have set a difference. They have set rolling a wave of new style of architecture. Writing on this I am inclined to feel that if for buildings erected by Govt. agencies local material, wherever available was used in preference to imported material, simple houses less expensive easier to maintain and more comfortable could be built. These would be in keeping with the pattern of structure prevalent.

It is extraordinary how little change has come in the structure of houses in Himachal Pradesh. Many houses have been distinguished with small doors and are ill-ventilated. Many of these houses are not altogether comfortable. These houses are not always something lovely to look at. There may be ornate wood carvings, elaborate and exquisite, but not always conveying of beauty. There are of course, many exquisitely beautiful famous temples. Men, women, children, cows, buffaloes, goats, sheep all residing in the same room gives another side of the picture. These are due to socio-economic and climatic conditions prevailing. This pattern of housing tends to remain in existence for many many years. Long after it has served its useful part. The idea that the man's house is his castle is very old.

We cannot adequately predict the future plan of housing. We know that many fears are involved. The predominant ones — where would industries be located, what would be the birth rate, what would be the population trend, while the population is increasing, what would be the village family's food, income and its size? Where would be the roads and what would be the amenities of life? Such questions would overlap each other. But one thing is definite and to some extent predictable that the question of community growth and development would be different in the future. The result would have deep significance for every aspect of community life.

However, housing problem has assumed an added importance on account of our conception of the Welfare State. Due to the change in the economic level of village people the problem should be tackled on a more realistic basis. The people have become better house minded. In many rural areas they have preserved the age long methods of constructing houses mostly through self-help and through the skill of the village carpenter who is the chief architect, chief brick-layer and chief engineer. Particular emphasis is required to be laid on providing cheap and readily available building material for different types of rural houses.

In Himachal apart the pattern of residential houses and the types of structures for religious worships and gatherings are different. The well

known temples in every district, old relics, monasteries all give a variety in colour and an assortment of the present and the past.

Talking of old houses, palaces — I am reminded of a great house builder of the 18th century?—Sir John Vanough, a dashing fashionable person who wrote plays before he began to design houses. He did not say "How, shall I make this a good place to live in," but, "How shall I make this a grand place to look at". He built Blenhiem Palace for the famous Duke of Marlborough. The dining room was at one end, the kitchen at the other. If one had placed six of such palaces in a line they would stretch a mile. One of the poets of the day described it thus:—

" Tis very fine,

But where D ye sleep or where D ye dine,

I joined by all you have been telling that it is a house not a dwelling."

On a much smaller scale we can also observe some houses — utterly serpentine, large and grand, structures added up by every generation upto a point, then bits falling as years roll by and the younger generation finding it a life's great liability to maintain these.

With all the knowledge of the past before us, we can seek inspiration from the builders of old, but we can also see the new needs of the day. With new materials coming into use, the houses may be designed different, almost as dresses change between generations. The houses may be well laid out, well ventilated, with better cornices, bigger doors, vaster courtyards with trees, shrubs, flowers, better streets, road side furnishings, to give health, comfort and aesthetic values.

The need for housing census

To formulate any concrete proposals for the drawing up of a comprehensive housing programme, to meet the every day growing needs of houses for the nation, it is essential to have data on the different aspects of housing.

The scanty information available so far on housing is of little help for the task of drawing up a housing programme for the nation. The International Labour Organisation—Asian Regional Conference held at Tokyo in September, 1953, also felt the large gap and the lack of detailed information on the quantity and quality of constructing houses in most of Asian Countries which should include India also. It is clear that the type of information required for the purpose, materials used, accommodation provided, tenure, could only be collected through a central organisation which is capable of covering each village in the country, and naturally the Government of India directed that the National Building Organisation in the Ministry of Works, Housing and Supply should arrange to collect all the relevant data through the Census Organisation which covers each and every house in the country. And accordingly they requested the Registrar General's Office to take up the work. This marked the undertaking of this unique assignment for the first time during 1961 Census Operations — a landmark in the history of the Indian Census. The collection of data is also unique in the sense that it has not in any way added much to the cost of taking census, because a list of census houses would have been prepared for enumeration purposes all the same, though not as detailed as was done this time.

Uniform collection of housing data—houselist.

As a preliminary to the census count, i.e., enumeration of people, house-numbering is done and houselists are prepared. In the earlier, Indian Censuses no uniform proforma was adopted for the houselists. In the 1961 Census a standard houselist form was adopted for the first time throughout the country which was designed to collect information on the uses of a census house, on the material of wall, material of roof, whether the census house was owned or rented, and the number of rooms, whether the house was used for dwelling, together with essential data concerning houses that were used as establishments, workshops or factories, like name of establishment or proprietor, name of product(s) produced, repaired or serviced, number of persons working and kind of fuel or power, if machinery was used. A specimen of the standard houselist form used for the 1961 Census along with instructions for filling the same may be seen in *Part IV—Annexure* of the report.

The houselist and other census schedules were finalised as a result of pretests and adopted for use after deliberations in the Conference of Superintendents of Census Operations

held in Delhi in September-October, 1959. In Himachal the first pretest was carried out by the Directorate of Economics and Statistics. The Superintendent of Census Operations was associated with the second pretest. It was not that uniform census schedules were put in use after pretests, but definitions of census terms were also made uniformally applicable throughout the country after pretest. This was a distinct improvement on the previous censuses. While only occupied residential houses were included under the term 'Census House' previously, in 1961 Census this term was made to cover non-dwelling units also to make the houselist a complete inventory of structures or parts of structures with separate entrances indicating the use to which they were put. In this inventory or houselist the recording of the use to which a structure or a part of structure with separate entrance, i.e., census house was put to, was, in fact, a collection of very useful housing and industrial data. The information about the number of small scale manufacturing repairing or processing establishments — workshops and worksheds — and large scale factories shown as established in the census houses, the details of product(s) manufactured, processed or repaired, the different sizes of employment in each of them and the type of fuel or power used will be very useful to the Ministries dealing with Industry as well as Fuel and Power. This data has been collected on the specific request of the Ministry of Commerce and Industry. This is perhaps the first time when information about the total number of census houses housing workshops and factories in India, classified by industry, power used and size of employment, will be available for public and government use. Perhaps no other country has made such an attempt. This will provide the frame for the collection of all basic industrial statistics.

The third session of the conference of Asian Statisticians of the E.C.A.F.E., Region held in April, 1960, had recognised the gap in the industrial statistics available to countries in the region. This was duc to the lack of data on the character and level of activities of smaller establishments and they appreciated the action taken in the 1961 Census operations of India to provide data on industrial establishments in the houselists. These lists would provide the basis for selecting samples of industrial establishments for collection of further data as well as elementary information on the structure of industrial segments.

Period of housing census

For 1961 Census the house-numbering and houselisting in Himachal Pradesh was to start from the 1st of May, 1960 and to end on the 30th June, 1960. The start was delayed by a fortnight to give intensive training to the District Census Officers, Charge Officers, Kanungos and Patwaris engaged on this work. Except a very few places, the house-numbering and house-listing was completed by the 30th June, 1960. Where it was delayed a little longer, the time was taken for preparing duplicate copies of the houselists. The village revenue staff — Patwaris under the supervision of Kanungos — did the actual field work in the rural areas under the charge of Tehsildars/Naib-Tehsildars who acted as Charge Officers. In the urban areas this work was entrusted to revenue officials as well as to the employees of the Local Bodies (Municipal Committees, Small Town Committees and Notified Area Committees) concerned, the overall charge being with the Charge Officers.

Material used for house-numbering

Material used for house-numbering was *geru matti* mixed with oil or coal-tar. The number on the house was given in some places on the centre of the lintel on the front door of the house, and in some places on the front door itself. In some places it was given on the wall at a height beyond the reach of children. At many places metal plates or wooden *takhtis* were provided by the households. In the towns also the house-numbers were given accordingly for census purposes but later on a suggestion was given to all the Local Bodies that they should make arrangements for permanent house-numbering. All the Local Bodies accepted this suggestion and promised to do permanent house-numbering.

The whole work, as scheduled, was finished before the monsoon and the numbering was inspected after the monsoon for re-marking because in certain places the numbers were washed away by rains or were white-washed by the households.

Training for housing census

Before commencing house-numbering and house-listing, training was given for this work. According to census calendar this training started from the 15th February, 1960, and was scheduled to be completed by the 30th April, 1960, but another fortnight was given for intensive training. The training for house-numbering and preparation of houselists was given to the District Census Officers who trained the Charge Officers under them. The Kanungos and Patwaris of the Revenue Department were trained by the Charge Officers.

Preparation of housing and village notional maps

The houselists were prepared in duplicate; one copy has been retained at the tehsil/sub-tehsil/sub-division headquarters and the other copy in this office. The preparation of houselists and house-numbering proceeded simultaneously. Houselists were prepared for every inhabited village and urban area.

Village notional maps were prepared by the Patwaris for the inhabited villages during house-numbering and house-listing. In the notional map the general lay-out of a village, numbers given to houses, street lay-out were shown. The census location code numbers of the district, tehsil/sub-tehsil/sub-division in which the village was situated and the code number of the village were indicated. Besides this, information about existing post, telegraph, telephone offices, schools, dispensaries, hospitals, religious shrines, drinking water supply, fair places, shops, and government offices were also incorporated in the map. Two copies of a notional map were prepared for every inhabited village. One set of these maps for all the villages has been sent to the office of the Registrar General, India.

House numbering in a definite order

In a village the houses were numbered in a geographic order. North-western-most house was given the first number and south-eastern-most the last number. In the village notional maps the house numbers were shown in the same order. In urban areas, the numbers were given in respect of the axis of the street and not on any pre-conceived geographic direction like north-west to south-east. The numbering was done along well-defined streets, roads and lanes and the serial ran along one side of the street completing the numbering on that side before crossing over to the end of the other side of the street, and continuing with the serial, stopping generally opposite to where the first number began.

Concepts and definitions of census terms in housing census

Three main concepts, *Building, Census House* and *Census Household* were associated with house-numbering and house-listing.

(a) A *Building* is referred to the entire structure on the ground. In the case of high, large or long buildings along a street or lane which were partitioned or portions of which had been sold, which had distinct, separate main exit on the road and which belonged to separate owners or occupiers; or a series of different houses joined each to each by common walls on either side to make the whole look like one building, parts of which might have been built at different times, and belonged to separate owners, all such distinguishable structures, although not separate from each other, were to be regarded as separate buildings and given separate numbers. Each building was to be given a separate number. If there were more than one structure within an enclosed or open compound belonging to the same person, e.g., the main a place of business, workshop, school, etc., then all these structures were to be treated as one building.

(b) *A Census House* was defined as a structure or part of a structure inhabited or vacant, or a dwelling, a shop, a shop-cum-dwelling or a place of business, workshop, school, etc., with a separate entrance.

If a building had a number of flats or blocks with separate entrances of their own and were independent of each other giving on the road or a common staircase or a common courtyard leading to a main gate, they were to be considered as separate census houses. If within an enclosed or open compound there were separate buildings then each building was to be treated as a separate census house. If all the structures within an enclosed compound were together treated as one building then each structure with a separate entrance was to be treated as a separate census house. Each census house was to be distinctly numbered.

(c) *A Census Household* was defined as a group of persons who commonly lived together and would take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so. There could be one or more census households in a census house. Each census household was to be distinctly numbered.

Thus a building could have one or more census houses and a census house could have more or one census household and they were all to be distinctly numbered.

If a building itself was a census house, then it was to have only one number, namely, that of the building, e.g., 2. If within a building there were a number of census houses, then each census house was to have two sets of numbers, e.g., the number of the building and the sub-number of the census house. The census house numbers were to be written after the building number in *arabic* numerals in brackets such as 2(1), 2(2), 3(1), 3(2), etc. If a census house contained more than one census household, each household was to be denoted by a separate alphabetical sub-number — (A), (B). (C), etc. For example, if building No. 2, was also a census house and had three households, the household numbers were to be 2(A), 2(B), and 2(C). If building No. 4, had two census houses, the houses were to be numbered as 4(1) and 4(2). If within each house there were, respectively, 3 and 2 households, then they were to be numbered as 4(1A), 4(1B), 4(1C) and 4(2A) and 4(2B). To have a complete understanding of the data collected in the houselists a reference is invited to the specimen of the standard houselist form duly filled in for a few typical cases and the house-listing instructions in *Part IV — Annexure* of the report.

Quality of houselists

As a result of the intensive training given to the house-numbering and house-listing staff, it was hoped that the work of house-listing would turn out according to expectations. But even then there were some errors and defects here and there which were noticed in the sample check of houselists in the field or at tehsil/sub-tehsil headquarters. These were remedied by reference back to the house-numbering and house-listing staff in the field. Main defects in the houselists at many places were untidiness and illegible handwriting and rewriting of houselists on fresh forms, neatly and cleanly, was necessary. Some errors creeped in the houselists due to forgetting of concepts of terms laid down. A columnwise analysis of the houselist form given below would reveal where some of the staff had tripped.

Column 1 — Line No.:—This referred to the numbering of line entries made in the houselist for a village/ward/mohalla/enumerator's block.

Column 2 — Building number (Municipal or Local Authority or Census Number, if any):—In rural areas the question of giving any Municipal or Local Authority building numbers did not arise as no such numbering existed there. In urban areas, where Municipal or Local Authority building numbers were expected to exist, it was not found feasible to give these old numbers because they were not up-to-date, uniform and systematic. Some of the buildings were found unnumbered and the buildings under construction had not been allotted any numbers. All the buildings in the urban and rural areas had, therefore, to be numbered by the census staff according to the prescribed instructions to maintain uniformity.

According to the instructions laid down for filling this column in the houselist the following points were to be kept in view.

The term building referred to an entire structure on the ground. It might be a hut, a stall on a permanent basis, a single-storeyed house, a double-storeyed house, a multi-storeyed house, or a mansion.

A building might belong to one owner or a number of owners jointly. In case of large or long buildings which had been partitioned or portions of which had been sold, which had distinct separate main exit on the road and which belonged to separate owners or occupiers then each such distinguishable portion/structure was to be regarded as a separate building and given separate number.

Where there were a series of different houses joined each to each by common walls on either side to make the whole look like one building but parts of which had been built at different times, and belonged to separate owners, then each such distinguishable structure, although

not separate from each other was to be regarded as a separate building and given a separate number. Each building was to have a separate number.

If there were more than one structure within an enclosed or open compound belonging to the same person, e.g., the main house, the servants' quarters, the garage etc., only one building number was to be given.

The concepts enumerated above for giving building numbers were quite clear. Inspite of that, in some places different building numbers had been given to more than one structure within an enclosed or open compound belonging to the same person. In such a case, it had been clearly laid down that only one building number was to be given. Here the concept that each building should have a separate number remained in the mind of the houselisting staff that they overlooked the fact that this was not applicable in the case of more than one structure within an enclosed or open compound belonging to the same person and only one building number was to be given in such cases.

Column 3 — *Building number (Column* 2) *with sub-numbers for each Census House*:—In the light of instructions prescribed for numbering of census houses, the actual use to which a building was put, *either in entirety or in parts* was to be taken into considerations, and the important condition for a portion of a building to be taken as a census house was that it should have a separate entrance. Accordingly in this column of the houselist building number of column 2 with a sub-number for each census house if a building had more than one census house was to be recorded. Census houses within a building were to be given sub-numbers by adding numerals in brackets after the building number. Contrary to instructions, at a number of places, it was found that distinction of numbering between a census house and a census household was not properly observed. Census houses within a building were given sub-number by addition of alphabets which indicated census households within a building/census house instead of numerals in brackets after the building number. This was an error and it was pointed out to the house-numbering and house-listing staff for correction. It was explained again that alphabets in brackets after a building number indicated number of households therein and the numerals the number of census houses, and they were two different things. The alphabetical sub-numbers were to be recorded only in column 11 of the houselist in conformity with the definition of a census household.

Column 4—*Purpose for which Census House used, e.g., dwelling, shop, shop-cum-dwelling, business, factory, workshop, school or other institution, jail, hostel, hotel etc*:— The actual use to which a census house was put, was to be recorded in column 4. There should not have been any difficulty in doing this in view of the instructions given, but even then some errors were observed here and there, e.g.,—

(i) Census house, which was used as a 'shop-cum-dwelling', and to be recorded as such, was recorded as 'dwelling' only.

(ii) Ordinary 'shops' were shown as 'workshops' and *vice-versa*. Cobbler's working place was shown as an ordinary 'shop' instead of 'workshop'.

(iii) School buildings found unoccupied, i.e., closed on account of vacation during houselisting period were shown as 'vacant.' It was also noticed in the cases of one tehsil that number of temples according to houselist did not tally with the information shown about them in the village directories. There, some of the temple buildings in the houselist had been shown either as 'vacant', or 'dwellings', i.e., vacant because they were unoccupied by any human beings and dwellings because people lived there in temple rooms. Entries for the temples should have been as 'temples' and not 'vacant' and for temples used as dwellings as temple-cum-dwellings.

Columns 5 *to* 8 — *If this Census House is used as an establishment, workshop or factory*:—These columns were to be filled only in cases where the census house was a factory or a workshop, i.e., where some kind of production, processing, repair or servicing was undertaken or where goods or articles were made and sold. If the census house was not used for purposes of a factory or workshop the columns were to be crossed (X). It was, however, noticed that in some places these columns had been filled for ordinary shops also,

and this was superfluous. In column 8, kind of fuel or power, if machinery was used in a factory or workshop, was to be recorded. If no machinery was used cross (X) was to be put in this column. Some of the houselisters, taking the cue from the word 'fuel', had recorded coal and wood in this column in the case of a 'Halwais' shop and coal in the cases of black-smiths and silver and goldsmiths, although they used no machinery at all.

Column 9—Material of Wall:—According to instructions, under this column the material out of which most of the walls of the house were made, i.e., grass, leaves, reeds, bamboo, unburnt bricks, mud, burnt bricks, stone, cement concrete or timber was to be recorded. It had also been laid down in the instructions that where a census house consisted of separate structures each of different materials, the material out of which the walls of the main bed-room were made should be recorded. In reference to the first part of the instructions here it had been pointed out by the house-listing staff that in buildings which were plastered from outside, and which were not in occupation of persons who had actually constructed the buildings it would be difficult to ascertain the material of the walls. Then again in the case of mud walls and walls built of unburnt bricks but plastered with mud it would be difficult to differentiate whether the material was mud or the unburnt bricks, if the persons who had actually built the buildings were not there to give the information. The house-listing staff was advised to make enquiries from some village elders in such cases and record entries accordingly.

Column 10 — *Material of roof*:—In this column the material out of which most of the outer roof exposed to the weather, and not the ceiling was made, tiles, thatch, corrugated iron sheets, wood or concrete etc., were to be recorded. In the case of a multi-storeyed building the intermediate floor or floors was to be taken as the roof of the lower floor. Entries were recorded accordingly. (Strictly speaking, whether in the case of single storeyed building or a multi-storeyed building the roof could be none other than outer roof exposed to the weather and the sun, as was pointed out by some of the houselisters).

Column 11 — *Sub-number of each Census Household with Census House number (column* 3):—A census household was defined as a group of persons who commonly lived together and would take their meals from a common kitchen (unless the exigencies of work prevented any of them from doing so). Census code numbers of all those census houses, where groups of persons were found living in the light of the definition of census household, were recorded in this column. In other words the numbers of census houses used as dwellings by households were recorded. In the case of census houses not used for dwelling at all cross (X) entries were made under the column. There could be one or more households in a census house. Each household was separately recorded under the column. If a census house contained only one household, its number as already recorded in column 3 was put down here in column 11 too. If a census house was occupied by more than one household, say for example census house bearing number 4 or 5 (1) had two households, they (census households) were separately recorded in column 11 as 4(A), 4(B) or 5(1A), 5(1B).

It was found in some places that entries in column 11 had been made in respect of day schools. This was a mistake. The mistakes were glaring and easily discerned from the number of persons shown residing *vide* entries in columns 15 — 17 and the use of the census houses shown in column 4 of the houselist. The day school did not come under the definition of a household. The mistakes were corrected.

Column 12 — *Name of Head of Household*:—The name of the head of each household, number of which was given in column, 11, was recorded in this column.

Column 13 — *Number of rooms in Census Household*:—The number of rooms occupied by each household was recorded in this column.

Column 14 — *Does the Household live in own or rented house*:—If the household lived in own house 'O' was the symbol to be recorded in this column against the entries recorded about the household in the previous columns 11 to 13. If the household lived in a rented house the symbol was 'R'.

Columns 15 *to* 17—*Number of persons residing in Census Household on day of visit*: In these columns number of males, females

and their total was recorded who were found residing in the household about which entries had been made in the previous columns 11 to 14.

Column 18 — *Remarks*:—Significant information was recorded in this column about the building or the census house, or the census household that had not been entered in any other column.

At the final scrutiny of the houselists, before which the errors listed in the analysis of the houselist above had been pointed out to the house-listing staff, it was found that the overall quality of the lists was quite satisfactory and few cases were referred back for reconciliation of discrepancies or correcting errors.

Housing census—coverage and staff engaged

The 10,438 inhabited villages and 13 towns in the Union Territory of Himachal Pradesh were covered by the Housing Census. To ensure that no inhabited village was missed in the census it called for systematic arrangements. The first step was the formation of census divisions in the Pradesh to build a structure of jurisdiction and responsibility. The different administrative units were declared as census divisions. The districts and tehsils/sub-tehsils/sub-divisions within the districts were census divisions at the top. The thirteen towns were also declared as census divisions. Within each tehsil/sub-tehsil/sub-division, excepting in the case of Mandi District's Karsog Tehsil as a whole and in Sundarnagar Tehsil partly, all its revenue villages with Hadbast (Revenue) numbers, which have distinct boundaries of their own were adopted as the primary census divisions. In Karsog and Sundarnagar Tehsils the *Pattis* (Hamlets) within the various revenue circles were adopted as primary census divisions. In Karsog and Sundarnagar Tehsils there are revenue circles each of which comprise of large numbers of Hamlets/Pattis and each of which are equivalent to a revenue village as obtaining in other tehsils.

All these census divisions were assigned distinct census code numbers. The six districts were assigned separate census code numbers. Within a district the tehsils/sub-tehsils/sub-divisions there, were allotted further separate census code numbers and within a tehsil/sub-tehsil/sub-division all the villages there, were also given district census code numbers. The towns within a district were also assigned separate code numbers with the help of Roman numerals.

Every houselist prepared for a village had to show the respective census code numbers and names of its tehsil/sub-tehsil/sub-division and the district. Similarly in the case of a town, the name and census code number of its district and the wards/mohallas comprising the town were to be shown in the houselist.

Himachal Pradesh Administration revenue officers and officials in the districts were engaged to carry out the Housing Census. The Revenue Assistant in a district worked as District Census Officer. Tehsildar/Naib-Tehsildar of a tehsil/sub-tehsil worked as Charge Officer both for the rural and urban areas under his jurisdiction. The Kanungos and Patwaris in a tehsil/sub-tehsil worked as Supervisors and Enumerators respectively who did the house-numbering and house-listing in the field in their respective Kanungo and Patwar circles. In the urban area of a tehsil/sub-tehsil the revenue officials were assisted by the employees of the Local Bodies. The number of inhabited villages and town covered in the Housing Census in each tehsil/sub-tehsil/sub-division of a district and the staff engaged is given in Statement I.

Housing Census was over in Himachal Pradesh by the 30th of June, 1960. After this the data collected in the houselists was used for making arrangements for population census.

Tabulation of housing data

In December, 1960, Charge Officers were directed to send one copy of the houselists to the Tabulation Office. The Tabulation Office for Himachal Pradesh started functioning at Simla on the 1st of February, 1960 and before that houselists from the Charge Officers had been received.

According to the Tabulation Plan for the 1961 Census, five tables were to be compiled from the houselists. The Tables that have been prepared may be seen in *Part III* of this report. The proformae of the Housing Tables had been drafted by the Registrar General in consultation with the National Building Organization. Detailed account of each table has been provided in the subsequent chapters.

STATEMENT I

Housing census—coverage and staff engaged

Union Territory/District/Tehsil/Sub-Tehsil/Sub-Division/Town	Census Code Numbers of			Coverage		Staff engaged		
	District	Tehsil/Sub-Tehsil/Sub-Division	Town	Inhabited villages	Towns	District Census Officer	Charge Officers	Enumerators
1	2	3	4	5	6	7	8	9
HIMACHAL PRADESH				**10,438**	**13**	**6**	**31**	**506**
CHAMBA DISTRICT	*1*			*1,123*	*1*	*1*	*5*	*108*
Chaurah Tehsil		1		378			1	24
Pangi Sub-Tehsil		2		90			1	4
Chamba Tehsil		3		241	1		1	36
Chamba Town (M.C.)			I					
Bhattiyat Tehsil		4		308			1	30
Brahmaur Sub-Tehsil		5		106			1	14
MANDI DISTRICT	*2*			*4,454*	*3*	*1*	*6*	*125*
Jogindarnagar Tehsil		1		1,038			1	28
Jogindarnagar Town			III					
Mandi Sadar Tehsil		2		1,032	1		1	29
Mandi Town (M.C.)			I					
Sarkaghat Tehsil		3		611			1	26
Chichot Tehsil		4		948			1	14
Sundarnagar Tehsil		5		200	1		1	15
Sundarnagar Town (M.C.)			II		1			
Karsog Tehsil		6		625			1	13
BILASPUR DISTRICT	*3*			*926*	*2*	*1*	*2*	*10*
Ghamarwin Tehsil		1		418			1	20
Bilaspur Sadar Tehsil		2		508	2			
Shri Naina Devi Ji Town (S.T.C.)			I				1	20
Bilaspur Town (S.T.C.)			II					
MAHASU DISTRICT	*4*			*2,893*	*5*	*1*	*11*	*141*
Arki Tehsil		1		469	1		1	16
Arki Town (N.A.C.)			I					
Seoni Sub-Tehsil		2		195			1	8
Kumharsain Sub-Tehsil		3		154	1			
Narkanda Town (N.A.C.)			II				1	9
Rampur Tehsil		4		179	1		1	16
Rampur Town (S.T.C.)			III					
Rohru Tehsil		5		169			1	18
Jubbal Tehsil		6		85			1	7
Kotkhai Sub-Tehsil		7		170			1	8

STATEMENT I—*concld.*

Housing census—coverage—staff engaged —contd.

Union Territory/District/ Tehsil/Sub-Tehsil/Sub-Division/Town	Census Code Numbers of			Coverage		Staff engaged		
	District	Tehsil/ Sub-Tehsil/ Sub-Division	Town	Inhabited villages	Towns	District Census Officer	Charge Officers	Enumerators
1	2	3	4	5	6	7	8	9
MAHASU DISTRICT—*contd.*								
Theog Tehsil		8		387	1		1	17
Theog Town (S.T.C.)			IV					
Kasumpti Tehsil		9		334			1	14
Solon Tehsil		10		454	1		1	14
Solon Town (M.C.)			V					
Chaupal Tehsil		11		297			1	14
SIRMUR DISTRICT	*5*			*965*	*2*	*1*	*4*	*79*
Pachhad Tehsil		1		399			1	26
Rainka Tehsil		2		230			1	24
Nahan Tehsil		3		149	1			
Nahan Town (M.C.)			I				1	13
Paonta Tehsil		4		187	1		1	16
Paonta Town (S.T.C.)			II					
KINNAUR DISTRICT	*6*			*77*		*1*	*3*	*13*
Nachar Sub-Division		1		21			1	4
Kalpa Sub-Division		2		24			1	4
Poo Sub-Division		3		32			1	5

Instructions had been issued by the Registrar General, India for compilation of the Housing Tables. These instructions may be seen in *Part IV—Annexure of this report.*

In accordance with the instruction for tabulation, the houselists were arranged serially according to census code numbers of villages in a tehsil/sub-tehsil/sub-division and by ward/mohalla in a town and lots of about 100 to 250 pages of houselists were stitched separately. This was found to be most ideal in handling the houselists in tabulation work. The pages were marked in a continuous serial order for the whole of a tehsil/sub-tehsil/sub-division/town. On the cover page of each lot the name of the particular tehsil/sub-tehsil/sub-division/town and district alongwith its code number, and the number of pages (from—to—) were recorded. Houselists relating to a tehsil/sub-tehsil/sub-division/town were handed over at a time to a team of sorters, and supervisor for tabulation work.

An account may be given here, as laid down in tabulation plan, as to what each of the five housing table will show. This will help appreciation of tabulation work — how it was performed.

E—HOUSING TABLES

E-I Census Houses and the uses to which they are put—

"This table will be prepared for all Census Houses. The Table will give the rural and urban figures with total of both for each tehsil/sub-tehsil/sub-division. The table will give an account of the uses to which Census Houses are

put. In the earlier Censuses, a 'Census House' was defined as a dwelling with a separate main entrance but at this Census a 'Census House', is not only a dwelling but also a structure or part of a structure with a separate entrance, whatever the uses to which it is put. It is, therefore, possible to tabulate this information from the data collected at the census. This is the first time that such information is made available for the country as a whole. This information will be of interest to the Ministries of Commerce and Industries and Works, Housing and Supply, State Governments and also to the Trading, Manufacturing Communities among others. In the case of large towns and cities they will be useful for town planning."

E-II Tenure Status of Sample Census Households living in Census Houses used wholly or partly as dwellings—

"This table will be prepared for a 20 per cent sample of households. It will be prepared for the same units as Table E-I. It will be confined to households whether they are pure dwellings or dwellings combined with other activities like workshop, shop, etc. This table will furnish useful information in regard to the proportion of rented households to owned households which will be of interest to the Works, Housing and Supply Ministry. This table will provide some clue to the construction activities."

E-III Census Houses used as Factories and Workshops classified by industry, power and no power used and size of employment—

"This table will be prepared for all Census Houses. It will be prepared for the same units as Table E-I. It relates both to small scale manufacturing, repairing or processing establishments (workshops) and large scale factories. Details of the product manufactured, processed or repaired under the 3 digit code of I.S.I.C. Scheme along with number of workshops and factories and their distribution according to the different sizes of employment using various kinds of fuel or power will be furnished. This is perhaps the first time when information on the total number of workshops and factories in the country classified as mentioned above will be made available. This information will be useful to the Ministries dealing with Industry as well as Fuel and Power, as this may give an indication of the amount of fuel or power used. This table may well provide the frame for the collection of all basic industrial statistics."

E-IV Distribution of Sample Households living in Census Houses used wholly or partly as dwellings by predominant material of wall and predominant material of roof—

"This table will be prepared for a 20 per cent sample of households. It will be prepared for the same units as Table E-I. It will give structural conditions of the houses namely, type of wall, type of roof. This will give useful information to the State Governments and to the Ministry of Works, Housing and Supply in order to enable them to undertake regional plans. The census records for the whole country will be preserved to provide a frame for sample surveys to be conducted by the National Buildings Organisation."

E-V Sample Households classified by number of members and by number of rooms occupied—

"This table will be prepared on a 20 per cent sample of households. It will be prepared for the same units as Table E-I. It will help in the measurement of congestion and overcrowding in households. This table will also be very useful to State Governments and the Works, Housing and Supply Ministry, in their building programme."

Sampling and Coding—After scrutiny of houselists coding and marking of the 20 per cent sample Households were taken up, Coding was to be done for preparation of Tables E-I, E-II, E-III and E-IV. Sampling was involved for the preparation of Table E-II, E-IV and E-V. For preparation of Tables E-II and E-IV both coding and sampling was called for. Both the operations of coding and sampling were carried out and completed almost simultaneously for every tehsil/sub-tehsil/sub-division/urban areas of a district.

Sampling of Households was done by systematic random sampling method. The first sample Household was ticked off, i.e., marked by drawing the random sample from a group of first five Households in the first houselist.

Coding for Table E-I and sampling of Households for Tables E-II, E-IV and E-V were done first. To start with two sorters out of four were engaged on coding for Table E-I. One would mark the codes in column 4 of the houselists with a red pencil, while the other would check up these entries. The remaining two sorters of the team did sampling work, one would mark 20 per cent. sample with the letter 'S' in red pencil in column 12 of the houselists, while the other would check this sampling. This method of simultaneous checking was found to be useful as errors in marking of sample were corrected immediately. The Supervisor checked the work of his team.

Sampling for all the rural areas was done separately. The houselists relating to towns, were arranged district-wise according to their code numbers. The sample was marked continuously for the urban area(s) of a district.

Coding for Tables E-II and E-IV was done after the marking and checking of the 20 per cent sample. Codes for Table E-II were marked in column 14 of the houselists while those for Table E-IV were marked in columns 9 and 10. No coding was required for Table E-V.

The different codes used for the Tables are:

Table E-I (Coding done in col. 4 of the houselist in respect of all Census Houses)

Codes used *Purpose for which Census House was used*

A	Dwellings
B	Shop-cum-dwellings
C	Workshop-cum-dwellings
D	Hotels, Hostels, Sarais, Dharamshalas, Tourist homes and Inspection houses
E	Shops excluding Eating houses
F	Business houses and Offices
G&H	Factories, Workshops and Worksheds
J	Schools and other Educational Institutions including Training classes, Coaching and Shop classes
K	Restaurants, Sweetmeat shops and Eating places
L	Places of entertainment and community gathering (Panchayat Ghar)
M	Public health and Medical Institutions, Hospitals, Health Centres, Doctor's Clinics, Dispensaries, etc.
N	Others
O	Census houses vacant at the time of house-listing

Table E-II (Coding done in col. 14 of the houselist in respect of 20 per cent sample Census Households)

Types of Census Houses occupied by sample Households	*Codes used*	
	Owned	*Rented*
Dwelling	AO	AR
Shop-cum-dwelling	BO	BR
Workshop-cum-dwelling	CO	CR
Dwelling with other uses	OO	OR

Table E-IV

Material of Wall (Coding done in col. 9 of the houselist in respect of 20 per cent sample Census Households)

Codes Used	*Predominant material of wall*
1	Grass, leaves, reeds or bamboo
2	Timber
3	Mud
4	Unburnt bricks
5	Burnt bricks
6	C.I. sheets or other metal sheets
7	Stone
8	Cement concrete
9	All other material

Material of roof (Coding done in col. 10 of the houselist in respect of 20 per cent sample Census Households)

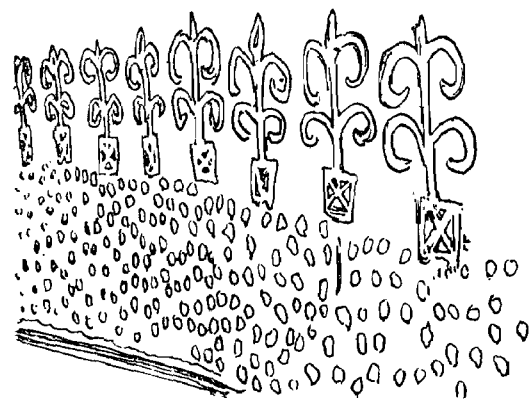
Codes used	*Predominant material of roof*
A	Grass, leaves, reeds, thatch, wood or bamboo
B	Tiles, slate, shingle
C	Corrugated iron, zinc, or other metal sheets
D	Asbestos cement sheets
E	Brick and lime
F	Concrete and stone
G	All other material

Coding for Table E-III was done the last of all. Three different types of codes had to be given. One for the industry, the second for the size of employment and the third for the type of power. The industrial codes in respect of Division 2—3 (Manufacturing) of the International Standard Industries Classification (ISIC) have been reproduced in *Part IV—Annexure* of this report. Coding for units running with power was done in column 6, while that for units running without power was done in column 8 of the houselists.

The various codes, apart from industrial code numbers, used for this table, are:—

Codes used	*Size of employment*
A	1 person
B	2—5 persons
C	6—9 persons
D	10—19 persons
E	20—49 persons
F	50—99 persons
G	100 persons and above
Codes used	*Type of power used*
I	Electricity
II	Liquid fuel
III	Coal, wood and bagasse
IV	Other power.

Frequency Tables—Excepting for Table E-III, process of actual counting of the various entries in each page of the houselists was adopted and page-wise total figures were posted in the frequency tables and from there in the relevant Housing Tables. Posting of figures in a frequency table was done by one of the sorters, while cent per cent checking of his work was done by another Supervisors made sample checking.



CHAPTER II

USES OF OCCUPIED CENSUS HOUSES

This Chapter relates to Census Houses and the uses to which they are put. The Table E-I gives an account of the uses to which Census Houses were put, about which information was recorded in column 4 of the houselists. The Table has been prepared for the Union Territory and for each district/tehsil/sub-tehsil/sub-division showing the rural and urban figures separately.

Concepts and definitions of house types

A Census House for 1961 Census was defined as a structure or part of a structure inhabited or vacant, or a dwelling, a shop, a shop-cum-dwelling or a place of business, work-shop, school, with a separate entrance. The uses of Census Houses are numerous. They have been classified into twelve comprehensive categories which are tabulated vide columns 5 to 16 of the Table E-I. The figures about the Census Houses vacant at the time of house-listing have also been shown in the table vide column 4. Brief explanations of the concepts of the terms used for the twelve categories into which the occupied Census Houses have been classified or grouped vide columns 5 to 16 of the Table E-I are given below—

Column 5—*Dwellings*:—Census Houses used purely as dwellings.

Column 6—*Shop-cum-dwellings*:—Census Houses used as dwellings combined with their use as shops where articles were sold for cash/kind or on credit.

Column 7—*Workshop-cum-dwellings*:—Census Houses used as dwellings combined with their use as workshops where some kind of production, repair or servicing was carried out or where goods or articles were made and sold.

Column 8—*Hotels, Sarais, Dharamshalas, Tourist homes and Inspection houses*:—Census Houses used as hotels, sarais, dharamshalas, tourist homes and inspection houses including all those Census Houses which were used as government rest houses, circuit houses, boarding houses, hostels and *'banglas'* owned by individuals or attached to temples where halting facilities for travellers were available.

Column 9—*Shops excluding Eating houses*:—Census Houses used as shops where articles were sold for cash/kind or on credit, excluding eating places like tea-shops, *'halwai shops'* and restaurants.

Column 10—*Business houses and Offices*:—Census Houses used as government offices and business houses like banks etc., where transaction in money or other articles took place.

Column 11—*Factories, Workshops and Worksheds*:—Census Houses housing factories registered under the Indian Factories Act, workshops and worksheds where manufacturing, production, repairing or servicing of goods or articles was carried out or where goods or articles were made and sold.

Column 12—*Schools and other Educational institutions including Training classes, Coaching and Shop classes*:—Census Houses used to house schools, and other educational institutions (excluding boarding houses, hostels) including training classes, coaching and shop classes where teaching and training was conducted. Production-cum-training centres stand included in the category of 'Factories, Workshops and Worksheds', under column 11 of the Table E-I.

Column 13—*Restaurants, Sweetmeat shops and Eating places*:—Census Houses housing restaurants, sweetmeat shops—*'halwai shops'* and eating places like petty tea shops and *'dhabas'*.

Column 14—*Places of entertainment and Community gathering (Panchayat Ghar)*:—Census Houses which housed temples, mosques, *'gurdawaras'*, cinemas, theatres, and Panchayats, i.e., places of worship and congregation.

Column 15—*Public health and Medical institutions, Hospitals, Health Centres, Doctors' clinics, Dispensaries etc*:—Census Houses occupied by hospitals, health centres, doctors' clinics, dispensaries and all other medical and public health institutions excluding

medical industrial concerns where medicines were manufactured which, of course, stand classified under 'Factories, Workshops and Worksheds' under column 11 of the Table E-I.

Column 16 — *Others*:—Census Houses used as stores, cattle-sheds, bath-rooms, latrines and kitchens conforming to the definition of a 'Census House', garages, poultry sheds, *'smadhis'*, covered watersheds, forts *'garhs'*, magazines, sheds.

Limitations

In the history of Indian Census this is the first occasion when such a comprehensive list of Census Houses has been prepared indicating the uses to which they are put. The information that has sprung up would be of considerable interest to the planners, administrators, research institutions, and students of social science. However, there are some limitations in the data which should be borne in mind.

The numbering of houses and preparation of houselists were undertaken primarily as a prelude to the census of human population. The main emphasis, therefore, in the Housing Census was to do the work in a manner so as to reduce to the minimum the possibility of leaving out any human being from count at the time of the main census. All human population, leaving aside houseless population, was counted at the place of their residence, i.e., dwellings in Census Houses. The houseless population, viz., pavement dwellers, or others who did not form part of Households living in Census Houses, persons who did not normally reside in houses, members of wandering tribes, tramps and sadhus were enumerated separately. The houseless population in Himachal Pradesh numbered 20,040 (17,448M, 2,592F) out of total population of 13,51,144 (702, 697 M, 648,447F). This would show that 1.4 per cent of the total population did not reside in Census Houses. Then again 98.6 per cent of the total population was not all residing in the Census Houses classified in Table E-I, as—

Dwellings	238,566	Census Houses
Shop-cum-dwellings ..	3,461	Do.
Workshop-cum-dwellings	18,782	Do.
Total ..	260,809	Census Houses

A little of the population resided in some occupied Census Houses, i.e., in other types of dwellings, classified as institutions for population census, such as hotels, boarding houses, hostels, rest houses, dharamshalas, temple-sarais, hospitals, etc. This type of institutional population numbered 6,163 (5,433M, 730F), i.e., 0.5 per cent of the total population So in making any study about the ratio of dwellings to the population, the readers may like to note these observations. They may, however, note that the main population of the Pradesh resided in the Census Houses classified as 'Dwellings', 'Shop-cum-dwellings', and 'Workshop-cum-dwellings'.

Reader would note that figures of 'occupied residential houses' in relation to the population, are given in Table A-I and Primary Census Abstracts of another Census Publication, entitled "Part II-A-General, Population." There he will find that the total of 'Dwellings', 'Shop-cum-dwellings' and 'Workshop-cum-dwellings', as given in the Table E-I, is at variance with the number of 'occupied residential houses'. These relative figures for the Pradesh, for rural and urban areas separately, are given in Statement II-1.

The figures were likely to differ in Table E-I and Table A-I and Primary Census Abstracts for the simple reason that the two operations of Housing Census and human population count took place at two different times. The difference should not be very wide, which it is not. The Housing Census was conducted in May-June, 1960 and population count in September—November, 1960 in snowbound areas and February-March, 1961 in non-snowbound areas.

The Census Houses found occupied by Households at the time of the Housing Census were found vacant at the time of population count in rural areas. In many places of the Pradesh, the farmers have their farm-houses used as cattleshed-cum-residences on farm lands at a distance from their permanent residences in the villages. These farm lands alongwith farm houses are termed in many places as *'Dogharis* or *Dohchis'*. These farm houses were listed in the houselists in May-June, 1960, as 'dwellings,' or 'dwelling-cum-cattle-sheds', as some members of Households were found living there in connection with farming operations. During population count these farm houses were found vacant, the members

STATEMENT II-1

Comparison of figures of occupied Census Houses (dwellings, shop-cum-dwellings and workshop-cum-dwellings) Table and occupied residential houses of Toble A-I and Primary Census Abstracts (P.C.A.) given in Part II-A—General Population Tables

		Occupied Census Houses Table E-1				No. of Occupied Residential Houses in Table A-I and PCA	Variation	
		Dwellings	Shop-cum-dwellings	Workshop-cum-dwellings	Total		Houses	Percentage
1		2	3	4	5	6	7	8
HIMACHAL PRADESH	Total	238,566	3,461	18,782	260,809	248,174	—12,635	—4·84
	Rural	227,688	2,988	17,545	248,221	235,358	—12,863	—5·18
	Urban	10,878	473	1,237	12,588	12,816	+228	+1·81

of Households having moved to their permanent residences in villages and they were counted there. This accounts for lesser number of 'occupied residential houses' in the Table A-I/ Primary Census Abstracts.

In the urban areas of Himachal Pradesh there is an increase in the number of 'occupied residential houses' as shown in the Table A-I/Primary Census Abstracts when compared with the Table E-I. The increase is very insignificant and very likely to take place. The difference in the figures of the Table E-I and the Table A-II Primary Census Abstracts should not deflect the use of the Table E-I, as it is. The observations have been made to remove doubts that may crop when comparison is made of the two different publications which deal in part with related data collected at two different points of time.

Statistical conclusions revealed by the Table E-I and its Subsidiary Tables, E-I. 1 and E-I. 2.

Absolute figures relating to Census Houses and the uses to which they are put are given in the Table E-I *Part II* of the report and proportionate figures for the sake of comparison are given in the Subsidiary Tables E-I.1 and E-I.2 printed at the end of this Chapter.

The Subsidiary Table E-I. 1 gives distribution of 1.000 Census Houses by vacant and different types of occupied Census Houses. In the Subsidiary Table E-I.2 is given proportion of 1,000 Census Houses in the rural/urban areas to 1,000 Census Houses in the district, tehsil/sub-tehsil/sub-division, which are (i) Vacant; or used as (ii) Dwellings, (iii) Shop-cum-dwellings and (iv Workshop-cum-dwellings.

Census houses and their classification into different categories

Absolute figures under each classified category of Census Houses, for rural/urban areas separately, for the Pradesh, for the districts within the Pradesh and for each tehsil/sub-tehsil/sub-division within a district may be seen in Table E-I. Here in the Statement II-2, the figures of Census Houses in the Pradesh under different categories have been arranged ranking them in order of numbers from highest to lowest in total, alongwith their percentage distribution between rural and urban areas.

The Statement II-2 reveals that the number of 'Dwellings' in total and in rural and urban areas both rank first in order, and it was bound to be so. The next in rank in total and rural areas are Census Houses classified as 'Others'. This should not be considered as something surprising because all those occupied Census Houses which do not find place in the other classified categories have been clubbed together in this category of 'Others'. The major number here is of cattle-sheds and stores which in rural

STATEMENT II-2

Categories of Census Houses ranking by their total numbers

Category of Census Houses	Total		Rural		Urban	
	Rank	Number	Rank	Number	Rank	Number
1	2	3	4	5	6	7
Total No. of Census Houses		**489,341**		**469,448** (95·4%)		**19,893** (4·1%)
Dwellings	I	238,566	I	227,688 (95·4%)	I	10,878 (4·6%)
Others	II	130,199	II	128,759 (98·9%)	IV	1,440 (1·1%)
Vacant	III	62,911	III	60,864 (96·7%)	II	2,047 (3·3%)
Factories, Workshops and Worksheds	IV	19,469	IV	18,797 (96·6%)	VI	672 (3·4%)
Workshop-*cum*-dwellings	V	18,782	V	17,545 (93·4%)	V	1,237 (6·6%)
Places of entertainment and Community gathering (Panchayat Ghar)	VI	6,378	VI	6,087 (95·4%)	IX	291 (4·6%)
Shops excluding Eating houses	VII	3,541	VIII	1,897 (53·6%)	III	1,644 (46·4%)
Shop-*cum*-dwellings	VIII	3,461	VII	2,988 (86·3%)	VIII	473 (13·7%)
Hotels, Sarais, Dharamshalas, Tourist homes and Inspection houses	IX	1,666	X	1,408 (84·5%)	X	258 (15·5%)
Business houses and Offices	X	1,633	XI	1,117 (68·4%)	VII	516 (31·6%)
Schools and other Educational institutions including Training classes, Coaching and Shop classes	XI	1,591	IX	1,487 (93·5%)	XIII	104 (6·5%)
Restaurants, Sweetmeat shops and Eating places	XII	627	XIII	403 (64·3%)	XI	224 (35·7%)
Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries etc.	XIII	517	XII	408 (78·9%)	XII	109 (21·1%)

areas are common with the cultivators. Third in rank in total and rural areas are vacant houses not put to any use. Even in urban areas the number of vacant houses is comparatively high, and in fact, their rank there is second. This may lead to the conclusion that housing accommodation is not a problem. This may lead to the conclusion that housing accommodation is not a problem. But all vacant houses cannot offer suitable accommodation for different needs of the people. Vacant houses suitable for shops, workshops and worksheds

cannot be used for residential purposes and vice versa. Houses with one or two rooms in each, vacant here and there, cannot be used profitably to house big school or any other institution. Then again, some households, in anticipation of their future needs do not rent out their houses: In this way many houses remain vacant.

To own a house is the primary consideration with every local family in the rural area. People in affluent circumstances have more than one house, some in use and some vacant. In many places, where timber is available in plenty for construction, the people, to an extent, do indulge in building houses which may not be fully occupied. This accounts for the large number of vacant houses. But the vacant houses in rural areas do not solve any problem of all those people who may not be having sufficient and suitable housing accommodation and in need of a house.

The Census Houses used for 'Factories, Workshops, and Worksheds', and 'Workshop-cum-dwellings' rank fourth and fifth respectively in total and in rural areas.

Common order of ranking for total and rural areas for different categories of Census Houses stand disturbed after the category of 'Places of entertainment and Community gathering (Panchayat Ghar)'.

It would be interesting to note that there is not much difference in the numbers of Census Houses used as 'Shops excluding Eating houses' in rural and in urban areas. There are 1,897 such houses in rural areas and 1,644 in urban areas. There are 13 towns (urban areas) in the Pradesh having a population of 63,928 and the balance of population of Himachal Pradesh numbering 1,287,216 lives in rural areas. As usual, the shops in towns do not cater for the needs of the town people only but they cater to the needs of the neighbouring rural areas also.

There is not much difference in the percentages of rural and urban population when compared with the percentages of Dwellings (all types) in rural and urban areas. The ratio of persons per Census House in rural area is 5:1 and in urban area also it is practically the same as shown in Statement II-3.

STATEMENT II-3

Percentages of dwellings in rural and urban areas and percentages of rural and urban population

Census Houses used as	Total	Rural	Urban
Dwellings . . .	238,566	227,688	10,878
Shop-cum-dwellings .	3,461	2,988	473
Workshop-cum-dwellings	18,782	17,545	1,237
Total .	260,809	2,48,221 (95·2%)	12,583 (4·8%)
Population . . .	1,351,144	1,287,216 (95%)	63,928 (5%)

Distribution of 1,000 census houses by vacant and different categories of occupied census houses.

Before commenting upon the distribution of 1,000 Census Houses by vacant and different types of occupied Census Houses in Himachal Pradesh, it would be of interest to the readers to have a knowledge of the distribution as obtaining in the various States and Union Territories of India. The Statement II-4 gives this information. It reveals that for every 1,000 Census Houses the proportion of 'Vacant Houses' ranges from 17 (lowest) in Tripura to 129 (highest) in Himachal Pradesh. This means that correspondingly the proportion of total occupied Census Houses is the lowest in Himachal Pradesh and the highest in Tripura. In the case of 'Dwellings', including 'Shop-cum-dwellings' and 'Workshop-cum-dwellings, the proportion is the highest in Nagaland (949), the lowest in Jammu and Kashmir (486) against 533 in Himachal Pradesh which is the second lowest proportion. The proportions of highest, lowest and the second lowest in the case of *pure* 'Dwellings' are also obtainable in Nagaland, Jammu and Kashmir and Himachal Pradesh respectively. The proportion of 'Shop-cum-dwellings' is the highest in NEFA (34) and the lowest in Laccadive, Minicoy & Amindivi Islands (1). The proportion of 'Workshop-cum-dwellings' is the highest in Dadra & Nagar Haveli (86) followed by Orissa (58).

In the case of 'Hotels, Sarais, Dharamshalas, Tourist homes and Inspection houses', the proportion is the highest in NEFA (17) and in other units of India it is far below two digits.

STATEMENT II-4

Distribution of 1,000 Census Houses by vacant and different types of occupied Census Houses (States/Union Territories)

States/Union Territories	Vacant Census Houses	Total	Occupied Census Houses												
			Dwellings				Hotels, Sarais, Dharamshalas, Tourist homes and Inspection houses	Shops excluding Eating houses	Business houses and Offices	Factories, Workshops and Worksheds	Schools and other Educational institutions including Training classes, Coaching and Shop classes	Restaurants, Sweetmeat shops and Eating places	Places of entertainment and Community gathering (Panchayat Ghar)	Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries, etc.	Others
			Total	Dwellings	Shop-cum-dwellings	Workshop-cum-dwellings									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
STATES															
Andhra Pradesh	59	941	802	787	4	11	1	13	2	6	4	2	11	1	99
Assam	20	980	931	908	21	2	2	8	4	2	9	1	1	2	20
Bihar	30	970	798	765	13	20	1	15	4	8	5	1	10	1	127
Gujarat	110	890	712	704	4	4	2	32	5	11	5	3	2	1	117
Jammu and Kashmir	105	895	486	472	3	11	1	25	4	21	5	2	15	1	335
Kerala	85	915	815	811	3	1	1	42	6	16	5	18	1	2	9
Madhya Pradesh	49	951	711	668	7	36	2	11	1	9	3	N	12	1	201
Madras	68	932	862	841	7	14	2	20	4	10	4	4	1	1	24
Maharashtra	72	928	674	652	7	15	1	18	5	14	5	2	18	2	189
Mysore	81	919	738	725	4	9	2	24	5	8	5	3	1	1	132
Orissa	35	965	889	826	5	58	3	11	3	3	6	N	3	1	746
Punjab	77	923	664	657	5	2	3	37	3	11	3	2	1	1	198
Rajasthan	113	887	728	721	4	3	2	34	2	5	3	1	1	1	110
Uttar Pradesh	33	967	642	635	4	3	1	21	1	9	2	N	4	1	286
West Bengal	35	965	749	738	8	3	1	24	5	14	5	2	1	2	162
UNION TERRITORIES & OTHER AREAS															
1 Andaman and Nicobar Islands	66	934	847	815	32	N	3	11	8	4	7	N	7	5	42
2 Dadra and Nagar Haveli	31	969	765	672	7	86	1	3	1	5	4	1	3	1	185
3 Delhi	32	968	783	763	17	3	3	80	9	14	3	3	2	2	69
4 **HIMACHAL PRADESH**	129	871	533	488	7	38	4	7	3	40	3	1	13	1	266
5 Laccadive, Minicoy & Amindivi Islands	128	872	678	677	1	0	3	54	5	N	7	1	1	2	121
6 Manipur	20	980	719	711	7	1	3	25	3	68	11	N	21	1	129
7 Nagaland	25	975	949	945	3	1	5	1	1	N	4	0	1	1	13
8 N.E.F.A.	50	950	760	726	34	0	17	15	26	4	13	N	4	23	83
9 Pondicherry	47	953	829	817	5	7	7	39	5	12	5	1	3	1	51
10 SIKKIM	22	978	894	867	22	5	3	4	4	2	6	N	N	1	64
11 Tripura	17	983	922	910	9	3	2	20	5	8	7	5	1	3	10

N = Negligible.

'Shops excluding Eating houses' have the highest proportion in Delhi (80) and the nearest rival is Laccadive, Minicoy & Amindivi Island (54). 'Business houses and Offices' have the highest proportion in NEFA (26). But in the matter of 'Factories, Workshops and Worksheds', Manipur leads all (68) followed by Himachal Pradesh (40). In the case of 'Schools and other Educational institutions', NEFA and Manipur come close. Kerala has the highest proportion of "Restaurants, Sweetmeat shops and Eating places"; and Manipur has highest number of places of entertainment and Community gathering (Panchayat ghar)' followed by Maharashtra.

NEFA has the largest proportion of Census Houses used for 'Public health and Medical institutions etc.' (23), whereas in the case of other units the proportions range between 1 to 5. As regards last category of Census Houses —'Others', the incidence of proportion is the highest in Jammu and Kashmir (335), followed by Uttar Pradesh (286) and Himachal Pradesh (266).

Distribution of census houses in the districts of Himachal Pradesh

The distribution of 1,000 Census Houses by vacant and different types of occupied Census Houses for the Pradesh, each of its districts, tehsils/sub-tehsils/sub-divisions, for rural and urban areas separately is given in the Subsidiary Table E-I.1. Here in the following pages the peculiarities of the incidences of distribution/proportion would be highlighted for the benefit of the readers.

STATEMENT II-5

Number of vacant Census Houses per 1,000 *of all Census Houses*

Union Territory/District	Vacant		
	Total	Rural	Urban
Kinnaur . . .	325	325	..
Mahasu . . .	195	199	123
HIMACHAL PRADESH .	**129**	**130**	**103**
Sirmur . . .	125	126	91
Chamba . . .	123	125	80
Bilaspur . . .	96	91	203
Mandi . . .	69	69	72

Vacant houses—The incidence of distribution of 'Vacant houses' has been arranged in ranking order of highest to lowest for the total in the above statement for easy comparison. In the Pradesh as a whole the proportion of 'Vacant houses' is higher in rural areas than in the urban areas. The districts of Mahasu, Sirmur and Chamba have also higher proportion of 'Vacant houses' in rural areas, whereas in the districts of Bilaspur and Mandi it is the reverse. Kinnaur District has no urban areas.

Compared to other districts, Kinnaur has the highest proportion of 'Vacant houses' followed by Mahasu in rural areas. Kinnaur is wholly located in the upper reaches of the Pradesh. The largest area of Mahasu, i.e. out of 11 tehsils/sub-tehsils — 8 tehsils/sub-tehsils, *viz.*, Sub-Tehsil Kumharsain, Tehsil Rampur, Tehsil Rohru, Tehsil Jubbal, Sub-Tehsil Kotkhai, Tehsil Theog, Tehsil Kasumpti and Tehsil Chaupal are also located in the upper reaches. In Mahasu District, it will be observed from the Subsidiary Table E-I.1, that the proportions of 'Vacant houses' are higher in the 8 tehsils/sub-tehsils of upper reaches than the other three tehsils of lower reaches.

In Chamba district also there are some Sub-tehsils/tehsils in the upper reaches, viz., Sub-Tehsils Pangi and Brahmaur and Tehsil Chaurah (partly) where proportions of 'Vacant houses' are higher as compared with other tehsils there.

In Mandi District, Chichot Tehsil has a higher proportion of distribution than the other tehsils there and the Pradesh. Similar is the case in Rainka and Paonta Tehsils of Sirmur District.

Excepting Bilaspur District, all those tehsils/sub-tehsils/sub-divisions of the other districts, whether in upper reaches fully or quite near to the upper reaches, the proportions of 'Vacant houses' are higher than the Pradesh. It may be stated here that all these areas abound in building timber, which is a great help in house construction and afford opportunity to people in affluent circumstances to build houses over and above their requirements.

Dwellings—After every 1,000 Census Houses the proportion of 'Dwellings of all kinds' is 533 in the total, 529 in the rural area and 633 in the urban area of the Pradesh as is shown in statement II.6. In the districts of Bilaspur and Mahasu these proportions are higher in the total and rural areas and lower in the urban area than the Pradesh averages. In the districts of Chamba, Mandi, Sirmur and Kinnaur the proportions are lower in the total

STATEMENT II-6

Number of Dwellings of all kinds per 1,000 of all census houses

Union Territory/, District	Number of Dwellings of all kinds per 1,000 of all Census Houses in											
	Dwellings of all kinds			Dwellings (pure)			Shop-cum-dwellings			Workshop-cum-dwellings		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13
Bilaspur . .	823	834	621	761	776	493	11	10	31	51	48	97
Mahasu . .	609	609	616	553	554	543	11	10	30	45	45	43
HIMACHAL PRADESH	533	529	633	488	485	547	7	6	24	38	38	62
Chamba . .	522	521	533	469	468	509	4	4	8	49	49	16
Mandi . .	480	472	641	445	441	530	7	6	30	28	25	81
Sirmur . .	443	431	698	408	397	634	5	5	10	30	29	54
Kinnaur . .	318	318	..	267	267	..	2	2	..	49	49	..

and in the rural areas than the Pradesh averages. In the rural areas of Mandi and Sirmur Districts the proportions are higher and in urban area of Chamba District it is lower than the Pradesh. In the comparison between the Pradesh proportions and the districts' proportions for *pure* 'Dwellings', the order of higher and lower incidences remains the same as in the case of 'Dwellings of all kinds', excepting in Mandi District for the urban area. Mandi District has not maintained the order of higher incidence here as compared with the Pradesh average.

Shop-cum-dwellings—After every 1,000 Census Houses proportions of 'Shop-cum-dwellings', are 7, 6 and 24 for total, rural and urban areas of the Pradesh respectively as revealed in statement II.6 In the districts of Bilaspur and Mahasu these Pradesh averages have been exceeded. In Mandi District only the urban average of the Pradesh has been exceeded, the other two proportions are the same. The other three districts of Chamba, Sirmur and Kinnaur have lower proportions than the Pradesh averages in all cases. The incidences of 'Shop-cum-dwellings' after every 1,000 Census Houses are higher in urban areas of the Pradesh and the districts as compared with their rural areas.

Workshop-cum-dwellings—It will be observed from the Statement II.6 that in the total and in the rural areas of all the districts the comparison order of higher or lower incidences after every 1,000 Census Houses remains the same when compared with the Pradesh averages as in the case of 'Dwellings of all kinds' and *pure* 'Dwellings'. In other words, if in any district the Pradesh average is exceeded in total, it has been exceeded in rural also. And if in any district incidence of proportion is lower than the Pradesh average in total it is lower in the rural as well.

In the comparison of rural and urban areas interesting variations are revealed. In Bilaspur District the incidences of 'Workshop-cum-dwellings' after every 1,000 Census Houses in urban areas are more than double of its rural area. In Mandi District the incidences in urban areas are practically more than three times of its rural areas, and reverse is the case in Chamba District.

In the Pradesh as a whole and in the district of Sirmur the proportions in the urban areas are quite near to the double of the incidences in rural areas. In Mahasu District the proportions of 'Workshop-cum-dwellings' after every 1,000 Census Houses in rural and urban areas are quite close to each other.

STATEMENT II-7

Number of 'Hotels, Sarais, Dharamshalas, Tourist homes, and Inspection houses', 'Shops excluding Eating houses', 'Business houses and Offices' and 'Restaurants, Sweet-meat shops and Eating places' per 1,000 *of all Census Houses*

Union Territory/District	Hotels, Sarais, Dharamshalas, Tourist homes and Inspection houses		Shops excluding Eating Houses		Business houses and Offices		Restaurants, Sweetmeat shops and Eating places	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9
HIMACHAL PRADESH . .	3	13	4	83	2	26	1	11
Chamba	5	16	8	145	3	23	1	4
Mandi	2	11	4	65	2	27	1	13
Bilaspur	2	7	3	89	2	22	1	19
Mahasu	3	20	4	68	3	32	1	12
Sirmur	4	11	3	96	2	22	N	6
Kinnaur	4	..	1	..	4	..	N	..

N=Negligible.

The Statement II-7 reveals that after every 1,000 Census Houses, the incidences for the types of occupied Census Houses are, as usual, more in urban areas.

STATEMENT II-8

Number of Census Houses occupied by Factories, Workshops and Worksheds per 1,000 *of all Census Houses*

Union Territory/ District	Census Houses occupied by Factories, Workshops and Worksheds		
	Total	Rural	Urban
Chamba . . .	48	48	46
Mandi	46	47	36
Mahasu . . .	46	46	33
Kinnaur . . .	48	48	..
HIMACHAL PRADESH .	**40**	**40**	**34**
Sirmur . . .	20	20	30
Bilaspur . . .	18	18	22

Factories, Workshops and Worksheds—As compared with the Pradesh averages the proportions of Census Houses occupied by 'Factories, Workshops and Worksheds', after every 1,000 Census Houses are higher, in the districts of Chamba, Mandi, Mahasu (excepting urban) and Kinnaur. In the other two districts of Sirmur and Bilaspur, the proportions fall below the Pradesh averages, rather very low.

STATEMENT II-9

Number of Census Houses occupied by 'Schools and other Educational institutions including Training classes, Coaching and Shop classes', and 'Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries etc.' per 1,000 *of all Census Houses in total, in rural and in urban areas*

Union Territory/ District	Schools and other Educational institutions including Training classes, Coaching and Shop classes			Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries etc.		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
HIMACHAL PRADESH . .	3	3	5	1	1	5
Chamba . .	3	3	6	1	1	6
Mandi . . .	3	3	3	1	1	5
Bilaspur . .	3	3	3	1	1	2
Mahasu . .	4	4	10	2	1	9
Sirmur . .	3	3	4	1	1	4
Kinnaur . .	3	3	..	1	1	..

Schools and other Educationl institutions including Training classes, Coaching and Shop classes—It will be observed from Statement II-9 that after every 1,000 Census Houses there are three Census Houses occupied by schools and other educational institutions in the Pradesh in total as well as in rural area and the same is the average for each of the districts but for the district of Mahasu. In the urban area the Pradesh average is 5, which has been exceeded in Mahasu and Chamba Districts and in the other three districts the averages are lower than the Pradesh average.

Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries etc.—In every 1,000 Census Houses, there is one Census House used by the Public health and Medical institution in the Pradesh in the total as well as in the rural area, which is also the proportion in the districts except in Mahasu (Total). Concentrations in the urban areas are more than in the rural.

STATEMENT II-10

Number of Census Houses occupied by places of entertainment and Community gathering (Panchayat Ghar) per 1,000 of all Census Houses in rural and in urban areas

Union Territory/District	Places of entertainment and Community gathering	
	Rural	Urban
1	2	3
HIMACHAL PRADESH . . .	13	15
Chamba	18	34
Mandi	8	17
Bilaspur	4	4
Mahasu	22	12
Sirmur	9	9
Kinnaur	21	..

Places of entertainment and Community gathering (Panchayat Ghar)—After every 1,000 Census Houses the Pradesh average for the places of entertainment and community gathering is 13 in the rural area and 15 in the urban area. In Bilaspur and Sirmur Districts these averages fall below the Pradesh averages. In the other districts the Pradesh averages have been exceeded excepting in Mandi (Rural) and Mahasu (Urban).

In this category of occupied Census Houses are included temples, mosques, and *gurdwaras* besides cinema houses, theatres and Panchayat Ghars. With the introduction of Panchayati Raj in the Pradesh the incidence of Census Houses used as Panchayat Ghars should have increased the proportion in rural areas of the Pradesh in respect of Census Houses used as places of entertainment and community gathering, if this category of occupied Census Houses was limited to include cinema houses, theatres and Panchayat Ghars only. Practically every 'Patwar circle' in the Pradesh has a Panchayat. But the inclusion of temples in this category of occupied Census Houses has lifted the higher proportion to the urban side of the Pradesh as well as to that of Mandi urban and Chamba urban, particularly because of many temples in urban areas of Mandi and Chamba Districts. Rural and urban proportions in Bilaspur and Sirmur Districts are even. In Mahasu District the proportion is higher in the rural areas. The temples in the real sense are serving as places of community gathering than the Panchayat Ghars which are used more as Panchayat Offices. The temples are places of entertainment also. In the rural areas, more in the higher reaches of the Pradesh, there is large density of temples. A village or a group of villages have their own local deity installed in a temple. Fairs are held in the vicinity of the temple and on festival occasions the people gather there to celebrate *puja*. Dancing, singing and playing of musical instruments is a regular feature on these occasions, and this is the best type of entertainment that the people have particularly in the rural area. The temple vicinity thus serves as the real places of entertainment and community gathering.

Others—Under this category are grouped cow-sheds, store-houses, motor garages, watersheds, old forts, bath-rooms—all those Census Houses as could not be classified under any of the other classified categories. In the distribution of 1,000 Census Houses by vacant and other different types of occupied Census Houses in the Pradesh as a whole, the proportion of 'Others' is of a very high order. They rank second to 'Dwellings'. Proportion of 'Dwellings' is 488 and that of 'Others' 266 as given in Subsidiary Table E-I.1.

In terms of distribution of 1,000 of these Census Houses used as 'Others' into rural and urban, it will be observed from the following Statement II-11 that preponderance of this type of Census Houses is in the rural areas in the Pradesh. This is because cattle-sheds particularly and separate store-houses to some extent are a must with the cultivators who form the largest portion of the population.

STATEMENT II-11

Distribution of 1,000 *Census Houses used as 'Others' into rural and urban*

Union Territory/District 1	*Rural* 2	*Urban* 3
HIMACHAL PRADESH	**989**	**11**
Chamba	988	12
Mandi	987	13
Bilaspur	990	10
Mahasu	975	25
Sirmur	997	3
Kinnaur	1,000	..

Educational and medical amenities in towns compared with their size of population

No town in Himachal Pradesh can be classified as (1) industrial and manufacturing town or (2) commercial and trading town on the basis of classification of workers as returned in the enumeration. This is due to comparatively low percentages of workers to total workers in 'Category IV at Household Industries' and 'Category V in Manufacturing other than Household Industries' and 'Category VII in Trade and Commerce'. Amongst the 'Total workers', the 'Category IX in Other Services' predominates in all the towns. All the towns may, therefore, be termed residential & administrative. The Statement II-12 certifies the conclusion that the towns in the Pradesh are 'residential and administrative'. The analysis of the proportion of educational and medical amenities, therefore, cannot be done in terms of (1) Industrial and Manufacturing towns or (2) Commercial & Trading towns. It can be done rather in terms of population more aptly.

The Statement II-13, reveals the relevant percentages of educational and medical amenities in terms of occupied Census Houses by 'Schools and other Educational institutions' and 'Public health and Medical institutions' in the various towns.

STATEMENT II-12

Classification of towns into (1) *'industrial and manufacturing', or* (2) *'commercial and trading' or* (3) *'residential and administrative' on the basis of percentage of workers in* (1) *'category IV at household Industries-cum-category V in manufacturing other than household industries'* (2) *in 'category VII in trade and commerce' and* (3) *in 'category IX in other services' to 'total workers' returned in* 1961 *enumeration*

District/Town	1961 Population	Total Workers Categories I—IX	Workers in Category IV at Household Industries	Workers in Category V in Manufacturing other than Household Industries	Total Workers Categories IV & V	Percentage of Workers in Categories IV and V to Total Workers	Workers in Category VII in Trade and Commerce	Percentage of Workers in Category VII to Total Workers	Workers in Category IX in Other Services	Percentage of Workers in Category IX to Total Workers
1	2	3	4	5	6	7	8	9	10	11
CHAMBA										
Chamba	8,609	2,688	338	115	453	16·85	341	12·69	1,722	64·06
MANDI										
Jogindarnagar	2,719	1,196	59	57	116	9·70	119	9·95	418	34·96
Mandi	13,034	4,380	287	525	812	18·54	493	11·26	2,324	53·06
Sundarnagar	5,782	2,184	354	23	377	17·26	115	5·27	652	29·85

STATEMENT II-12—*concld.*

1	2	3	4	5	6	7	8	9	10	11
BILASPUR										
Shri Naina Devi Ji	328	117	6	..	6	5·13	2	1·71	62	52·99
Bilaspur .	7,424	3,199	206	328	534	16·69	242	7·56	1,381	43·16
MAHASU										
Arki . .	1,221	456	64	3	67	14·69	44	9·65	203	44·51
Narkanda .	360	234	23	1	24	10·26	21	8·97	83	35·47
Rampur .	2,079	999	81	99	180	18·02	125	12·51	502	50·25
Theog . .	1,536	889	75	29	104	11·70	118	13·27	401	45·10
Solon . .	6,564	2,559	74	536	610	23·84	334	13·05	1,257	49·12
SIRMUR										
Nahan . .	12,439	4,479	121	944	1,065	23·78	347	7·74	2,432	54·29
Paonta . .	1,833	699	59	45	104	14·88	79	11·30	397	56·79

STATEMENT II-13

Educational and medical amenities compared to size of town

Town	Population 1961	Percentage of urban population	Educational and medical institutions	
			No.	Percentage
1	2	3	4	5
Chamba . . .	8,609	13·47	24	11·27
Jogindarnagar . .	2,719	4·25	11	5·16
Mandi . . .	13,034	20·39	26	12·21
Sundarnagar . .	5,782	9·05	20	9·39
Shri Naina Devi Ji .	328	0·51	11	5·16
Bilaspur . .	7,424	11·61		
Arki	1,221	1·91	14	6·57
Narkanda . . .	360	0·56	5	2·35
Rampur . . .	2,079	3·25	10	4·70
Theog . . .	1,536	2·40	15	7·04
Solon . . .	6,564	10·27	44	20·66
Nahan . . .	12,439	19·46	22	10·33
Paonta . . .	1,833	2·87	11	5·16
Total .	63,928	100·00	213	100·00

It is not possible to draw any conclusions from the Statement II-13 in regard to the sufficiency or insufficiency of medical and educational amenities in the towns in relation to the population in each one of them. There are great fluctuations from town to town in the distribution of the amenities. Four of the towns *viz.*, Chamba, Mandi, Bilaspur and Nahan are district and tehsil headquarters of the districts and tehsils of the same names. The other towns, excepting Shri Naina Devi Ji and Narkanda, are tehsil headquarters of the tehsils of the same names. The educational and medical institutions like district hospitals and colleges at the district headquarters, which are also towns, cater not only to the needs of the town population but for the people in the district as a whole. Similar is the case of tehsil headquarters which are towns. The distribution of medical and educational amenities in the towns, therefore, cannot be co-related to the population in them. It would, however, need explanation to account for the amenities at Solon, which is the headquarters of Solon tehsil. Solon serves not only the needs of the town population, but also caters for the popu-

STATEMENT II-14

Comparison of different types of Census Houses per 1,000 Census Houses with Workers in different categories per 1,000 of Total Workers (1961 Enumeration)

Serial No.	Union Territory/District	Total Rural Urban	Vacant Census Houses	Dwellings	Workers in categories I, II and III (as Cultivators, as Agricultural Labour and in Mining, Quarrying etc.) per 1,000 of Total Workers	Workshop-cum-dwellings	Workers in Category IV (at Household Industry) per 1,000 of Total Workers	Shop-cum-dwellings	Shops excluding Eating Houses	Shops Total Cols. 9 and 10	Workers in Category VIII (in Trade and Commerce) per 1,000 of Total Workers	Factories, Workshops and Worksheds	Workers in Category V (in Manufacturing other than Household Industry) per 1,000 of Total Workers	Business houses and Offices	Hotels, Sarais, Dharamshalas, Tourist homes, and Inspection houses	Schools and other Educational institutions including Training classes, Coaching and Shop classes	Restaurants, Sweetmeat shops and Eating places	Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries, etc.	Places of Entertainment and Community gathering (Panchayat Ghars)	Business—Places of Entertainment Total Cols. 15—20	Workers in Categories VI, VIII and IX (in Construction, in Transport, Storage and Communications and in Other Services) per 1,000 of Total Workers	Census Houses used as 'Others'
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	**HIMACHAL PRADESH**	**Total**	**129**	**488**	**857**	**38**	**56**	**7**	**7**	**14**	**9**	**40**	**8**	**3**	**4**	**3**	**1**	**1**	**13**	**25**	**70 (49)**	**266**
		Rural	**130**	**485**	**880**	**38**	**55**	**6**	**4**	**10**	**6**	**40**	**5**	**2**	**3**	**3**	**1**	**1**	**13**	**23**	**54 (35)**	**274**
		Urban	**103**	**547**	**130**	**62**	**73**	**24**	**83**	**107**	**99**	**34**	**112**	**26**	**13**	**5**	**11**	**5**	**15**	**75**	**586 (488)**	**72**
2	Chamba .	Total	123	469	879	49	53	4	12	16	7	48	9	3	5	3	1	1	19	32	52 (38)	263
		Rural	125	468	898	49	51	4	8	12	4	48	8	3	5	3	1	1	18	31	39 (25)	267
		Urban	80	509	22	16	126	8	145	153	127	46	43	23	16	6	4	6	34	89	682 (641)	107
3	Mandi .	Total	69	445	891	28	42	7	7	14	9	46	5	3	2	3	2	1	8	19	53 (43)	379
		Rural	69	441	915	25	40	6	4	10	6	47	2	2	2	3	1	1	8	17	37 (30)	391
		Urban	72	530	229	81	90	30	65	95	94	36	78	27	11	3	13	5	17	76	509 (426)	110
4	Bilaspur .	Total	96	761	813	51	78	11	7	18	9	18	7	4	3	3	2	1	4	17	93 (58)	39
		Rural	91	776	842	48	78	10	3	13	7	18	3	2	2	3	1	1	4	13	70 (42)	41
		Urban	203	493	129	97	64	31	89	120	74	22	99	22	7	3	19	2	4	57	634 (435)	8
5	Mahasu .	Total	195	553	868	45	42	11	7	18	10	46	10	4	4	4	1	2	21	36	70 (53)	107
		Rural	199	554	885	45	42	10	4	14	7	46	7	3	3	4	1	1	22	34	59 (43)	108
		Urban	123	543	107	43	62	30	68	98	125	33	130	32	20	10	12	9	12	95	576 (476)	65
6	Sirmur .	Total	125	408	818	30	73	5	7	12	9	20	12	3	4	3	N	1	9	20	88 (57)	385
		Rural	126	397	852	29	75	5	3	8	6	20	4	2	4	3	N	1	9	19	63 (34)	401
		Urban	91	634	64	54	35	10	96	106	82	30	191	22	11	4	6	4	9	56	628 (546)	29
7	Kinnaur .	Rural	325	267	708	49	151	2	1	3	5	48	13	4	4	3	N	1	21	33	123 (48)	275

Note:—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures, against 'Total' because they are proportionate figures worked out on the basis of figures of total, rural and urban areas separately per thousand.

lation of the tehsil as well as for the population of District Mahasu. There are also institutions which cater to the entire Pradesh Population.

Categories of census houses corresponding to the economic characteristics of urban and rural areas.

In the Statement II-14, comparison is made of the different categories of Census Houses with the different categories of workers to arrive at conclusions about economic characteristics of urban and rural areas.

The main economic activity of rural areas is agriculture. The proportion of workers engaged in categories I (Cultivator), II (Agricultural labourer) and III (Mining, Quarrying, Livestock. Forestry, Plantations, Orchards etc.) per 1,000 of Total Workers, is higher in the Pradesh rural areas (880) when compared with the urban areas (130) as shown in col. 6 of the Statement II-14. Naturally the largest proportion of the dwellings in rural areas will be in occupation of the workers in the above three categories. In the urban areas the largest proportion of the dwellings will be in the occupation of the non-agriculturists, whose number after every 1,000 of Total Workers is comparatively larger, as will be observed under columns 8, 12, 14 and 22 of the Statement II-14.

The proportions of Workshop-cum-dwellings per 1,000 of Census Houses in rural areas of the Pradesh is 38 and in urban areas it is 62. This has relations to pursuit of household industry, and the proportion of workers in category IV at 'Household Industry' per 1,000 of Total Workers is 55 in rural and 73 in urban areas. In the urban areas, the workshop-cum-dwellings and the workers at household industry, after every 1,000 Census Houses and total workers respectively are more as compared with rural areas, but the rural figures also are not low. This shows that both in rural and urban areas workshop-cum-dwellings, indicative of household industry, are more or less equally favoured.

Shop-cum-dwellings and shops excluding eating houses, after every 1,000 Census Houses are more in urban areas than the rural areas of the Pradesh, as will be observed from columns 9, 10 and 11 of the Statement II-14. The shops in the towns of the Pradesh, cater not only for the urban population but for the rural areas surrounding the towns. Thus their number after 1,000 Census Houses in the urban areas is bound to be more, and equally so the proportion of workers in category VII (in trade and commerce) after every 1,000 of total workers is more in the urban areas (99) as compared with the rural areas (6) of the Pradesh.

The proportions of Census Houses used to house factories, workshops and worksheds after every 1,000 Census Houses, are more in rural areas (40) than the urban areas (34) of the Pradesh. The corresponding proportions of workers in category V (in Manufacturing other than Household Industry) after every 1,000 of the total workers are, however, quite the reverse. It may be stated here that a very large proportion of Census Houses in the rural areas of the Pradesh are used for housing the watermills classified as Worksheds, so much so that out of 18,797 Census Houses in the rural areas used for housing factories, workshops and worksheds there are 16,671 Census Houses (worksheds) used for housing the water-mills alone where grinding and husking of cereals is done. In these water-mills very few full time workers are engaged, who could be classified in category V of the workers which is indicative of the fact that primary occupation of running these water-mills is not of many, and this accounts for very low proportion of workers in manufacturing other than household industry after every 1,000 of the total workers in rural areas.

In the Pradesh the proportions of workers in categories VI, VIII and IX (in construction, in transport, storage and communications, and in other services) after every 1,000 of total workers, as shown in column 22 of the Statement II-14, are more in urban areas than in the rural areas, i.e., 54 for rural and 586 for urban. The largest number in these figures, as indicated in brackets, is of workers in category IX (in other services). The corresponding proportions of different types of Census Houses after every 1,000 Census Houses as shown in columns 15 to 21 of the Statement II-14, where workers of category IX (in other services) particularly could work are also more in urban areas.

Subsidiary Table E-I. 1

Distribution of 1,000 *Census Houses by Vacant and different types of Occupied Census Houses*

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division		Vacant Census Houses	Occupied Census Houses													
			Total	Dwellings, Shop-cum-dwellings, Workshop-cum-dwellings				Hotels, Sarais, Dharamshalas, Tourist homes and Inspection houses	Shops excluding Eating Houses	Business houses and Offices	Factories, Workshops and Worksheds	Schools and other Educational institutions including Training Classes, Coaching and Shop classes	Restaurants, Sweetmeat shops and Eating places	Places of entertainment and Community gathering (Panchayat Ghar)	Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries, etc.	Others
				Total	Dwellings	Shop-cum-dwellings	Workshop-cum-dwellings									
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HIMACHAL PRADESH																
	TOTAL	**129**	**871**	**533**	**488**	**7**	**38**	**4**	**7**	**3**	**40**	**3**	**1**	**13**	**1**	**266**
	RURAL	**130**	**870**	**529**	**485**	**6**	**38**	**3**	**4**	**2**	**40**	**3**	**1**	**13**	**1**	**274**
	URBAN	**103**	**897**	**633**	**547**	**24**	**62**	**13**	**83**	**26**	**34**	**5**	**11**	**15**	**5**	**72**
							CHAMBA DISTRICT									
Chamba District	**Total**	*123*	*877*	*522*	*469*	*4*	*49*	*5*	*12*	*3*	*48*	*3*	*1*	*19*	*1*	*263*
	Rural	*125*	*875*	*521*	*468*	*4*	*49*	*5*	*8*	*3*	*48*	*3*	*1*	*18*	*1*	*267*
	Urban	*80*	*920*	*533*	*509*	*8*	*16*	*16*	*145*	*23*	*46*	*6*	*4*	*34*	*6*	*107*
1. Chaurah Tehsil	Rural	118	882	523	468	4	51	2	5	1	52	2	0	12	1	284
2. Pangi Sub-Tehsil	Rural	210	790	394	279	2	113	7	1	4	69	5	0	25	1	284
3. Chamba Tehsil	Total	149	851	548	500	5	43	4	23	4	50	4	1	26	1	190
	Rural	157	843	550	499	5	46	3	9	2	50	3	1	24	1	200
	Urban	80	920	533	509	8	16	16	145	23	46	6	4	34	6	107
4. Bhattiyat Tehsil	Rural	75	925	485	436	5	44	7	11	3	39	5	2	14	1	358
5. Brahmaur Sub-Tehsil	Rural	161	839	639	608	1	30	12	6	4	51	3	0	31	2	91
							MANDI DISTRICT									
Mandi District	**Total**	*69*	*931*	*480*	*445*	*7*	*28*	*2*	*7*	*3*	*46*	*3*	*2*	*8*	*1*	*379*
	Rural	*69*	*931*	*472*	*441*	*6*	*25*	*2*	*4*	*2*	*47*	*3*	*1*	*5*	*1*	*391*
	Urban	*72*	*928*	*641*	*530*	*30*	*81*	*11*	*65*	*27*	*36*	*3*	*13*	*17*	*5*	*110*
1. Jogindernagar Tehsil	Total	62	938	506	473	9	24	2	6	4	46	3	2	4	1	364
	Rural	62	938	501	472	6	23	2	5	3	46	3	2	4	1	371
	Urban	56	944	618	493	62	63	7	36	29	25	6	26	5	5	187

2. Mandi Sadar Tehsil	Total	48	952	453	423	7	23	3	14	5	45	2	2	10	1	417
	Rural	45	955	426	404	6	16	2	5	2	46	2	1	9	1	461
	Urban	75	925	671	576	19	76	13	97	30	37	3	11	18	4	41
3. Sarkaghat Tehsil	Rural	25	975	423	397	5	21	2	3	2	24	3	1	3	N	514
4. Chichot Tehsil	Rural	157	843	442	403	5	34	1	3	1	90	3	1	13	1	288
5. Sundarnagar Tehsil	Total	56	944	569	511	12	46	2	5	4	38	3	3	11	1	308
	Rural	53	947	564	518	8	38	1	3	1	38	3	1	9	1	326
	Urban	74	926	596	463	34	99	9	18	21	38	4	11	19	6	204
6. Karsog Tehsil	Rural	125	875	651	605	6	40	2	5	2	46	4	3	16	1	145
BILASPUR DISTRICT																
Bilaspur District	**Total**	*96*	*904*	*823*	*761*	*11*	*51*	*3*	*7*	*4*	*18*	*3*	*2*	*4*	*1*	*39*
	Rural	*91*	*909*	*834*	*776*	*10*	*48*	*2*	*3*	*2*	*18*	*3*	*1*	*4*	*1*	*41*
	Urban	*203*	*797*	*621*	*493*	*31*	*97*	*7*	*89*	*22*	*22*	*3*	*19*	*4*	*2*	*8*
1. Ghumarwin Tehsil	Rural	93	907	822	773	11	38	2	2	2	14	2	N	5	1	57
2. Bilaspur Sadar Tehsil	Total	101	899	824	746	10	68	3	15	5	24	8	4	3	1	17
	Rural	87	913	850	779	7	64	3	7	3	24	3	2	3	N	18
	Urban	203	797	621	493	31	97	7	89	22	22	3	19	4	2	8
MAHASU DISTRICT																
Mahasu District	**Total**	*195*	*805*	*609*	*553*	*11*	*45*	*4*	*7*	*4*	*46*	*4*	*1*	*21*	*2*	*107*
	Rural	*199*	*801*	*609*	*554*	*10*	*45*	*3*	*4*	*3*	*46*	*4*	*1*	*22*	*1*	*108*
	Urban	*123*	*877*	*616*	*543*	*30*	*43*	*20*	*68*	*32*	*33*	*10*	*12*	*12*	*9*	*65*
1. Arki Tehsil	Total	54	946	576	505	11	60	4	3	2	33	3	1	7	2	315
	Rural	49	951	574	504	10	60	3	3	1	34	3	1	6	1	325
	Urban	176	824	617	519	37	61	28	22	24	24	15	7	32	11	44
2. Seoni Sub-Tehsil	Rural	89	911	815	745	17	53	3	2	4	58	5	2	19	2	1
3. Kumharsain Sub-Tehsil	Total	267	733	564	529	10	25	3	4	5	30	5	1	26	3	92
	Rural	270	730	566	533	9	24	2	3	4	30	5	1	26	2	91
	Urban	133	867	468	310	76	82	76	32	38	13	13	38	13	18	158
4. Rampur Tehsil	Total	250	750	642	568	5	69	5	7	6	51	5	1	17	1	15
	Rural	258	744	648	575	5	68	4	3	3	52	5	N	17	1	11
	Urban	145	855	560	448	20	92	20	68	46	39	6	13	11	9	83
5. Rohru Tehsil	Rural	304	696	512	461	3	48	1	3	2	36	3	1	22	1	115
6. Jubbal Tehsil	Rural	225	775	573	530	10	33	4	4	3	39	4	2	52	1	93

N=Negligible

**Note* :—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of figures of total, rural and urban areas separately per thousand.

Subsidiary Table E-I. 1—concld.

Distribution of 1,000 Census Houses by Vacant and different types of occupied Census Houses—concld.

1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
							MAHASU DISTRICT—concld.									
7. Kotkhai Sub-Tehsil	Rural	241	759	645	586	14	45	4	3	3	66	7	1	19	2	9
8. Theog Tehsil	Total	164	836	562	514	14	34	3	6	4	72	4	2	26	2	155
	Rural	166	834	560	516	12	32	3	4	2	73	4	1	27	1	159
	Urban	92	908	627	478	75	74	24	71	48	44	4	28	9	24	29
9. Kasumpti Tehsil	Rural	138	862	622	576	17	29	5	8	7	51	4	1	27	2	135
10. Solon Tehsil	Total	94	906	802	730	17	55	5	26	10	18	7	3	4	2	29
	Rural	87	913	863	778	16	69	2	7	4	12	5	2	2	1	15
	Urban	111	889	637	602	18	17	13	79	26	33	12	8	9	5	67
11. Chaupal Tehsil	Rural	303	697	581	540	5	36	3	2	4	56	4	1	30	1	15
							SIRMUR DISTRICT									
Sirmur District	**Total**	*125*	*875*	*443*	*408*	*5*	*30*	*4*	*7*	*3*	*20*	*3*	*N*	*9*	*1*	*385*
	Rural	*126*	*874*	*431*	*397*	*5*	*29*	*4*	*3*	*2*	*20*	*3*	*N*	*9*	*1*	*401*
	Urban	*91*	*909*	*698*	*634*	*10*	*54*	*11*	*96*	*22*	*30*	*4*	*6*	*9*	*4*	*29*
1. Pachhad Tehsil	Rural	98	902	473	434	7	32	2	3	3	22	3	1	13	1	381
2. Rainka Tehsil	Rural	133	867	298	276	1	21	1	2	1	18	2	N	8	1	536
3. Nahan Tehsil	Total	75	925	793	726	2	65	9	55	11	28	6	2	10	1	10
	Rural	52	948	876	797	3	76	9	9	3	27	8	N	12	0	4
	Urban	101	899	700	648	1	51	10	103	20	29	4	4	9	3	17
4. Paonta Tehsil	Total	155	845	595	548	11	36	12	4	3	20	3	1	7	1	199
	Rural	158	842	593	548	10	35	11	4	2	20	3	N	6	1	202
	Urban	23	977	684	534	73	77	19	33	35	35	6	23	15	17	110
							KINNAUR DISTRICT									
Kinnaur District*	**Rural**	*325*	*675*	*318*	*267*	*2*	*49*	*4*	*1*	*4*	*48*	*3*	*N*	*21*	*1*	*275*
1. Nachar Sub-Division	Rural	396	604	370	326	2	42	4	1	2	38	3	N	23	1	162
2. Kalpa Sub-Division	Rural	331	669	270	211	2	57	2	2	4	51	2	1	12	1	324
3. Poo Sub-Division	Rural	260	740	338	292	1	45	7	1	4	52	4	N	32	1	301

* Entirely rural.

N=Negligible.

Note :—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the baeis of figures of total, rural and urban areas separately per thousand.

Subsidiary Table E-I. 2

Proportion of 1,000 Houses in the rural/urban areas to 1,000 Houses in the District/Tehsil/Sub-Tehsil/Sub-Division

Union Territory/District/Tehsil/Sub-Tehsil/Sub-Division	Vacant		Used as dwellings		Used as Shop-cum-dwellings		Used as Workshop-cum-dwellings	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9
HIMACHAL PRADESH	967	33	954	46	863	137	934	66
Chamba District	*981*	*19*	*968*	*32*	*944*	*56*	*991*	*9*
Chaurah Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Pangi Sub-Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Chamba Tehsil	944	56	894	106	833	167	963	37
Bhattiyat Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Brahmaur Sub-Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Mandi District	*952*	*48*	*946*	*54*	*798*	*202*	*870*	*130*
Jogindarnagar Tehsil	965	35	960	40	722	278	901	99
Mandi Sadar Tehsil	835	165	856	144	714	286	654	346
Sarkaghat Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Chichot Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Sundernagar Tehsil	816	184	873	127	593	407	699	301
Karsog Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Bilaspur District	*890*	*110*	*966*	*34*	*850*	*150*	*900*	*100*
Ghamarwin Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Bilaspur Sadar Tehsil	*758*	242	920	80	639	361	827	173
Mahasu District	*975*	*25*	*960*	*40*	*888*	*112*	*962*	*38*
Arki Tehsil	873	127	960	40	865	135	961	39
Seoni Sub-Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Kumharsain Sub-Tehsil	990	10	988	12	852	148	936	64
Rampur Tehsil	966	34	953	47	781	219	921	79
Rohru Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Jubbal Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Kotkhai Sub-Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Theog Tehsil	980	20	967	33	317	183	923	77
Kasumpti Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Solon Tehsil	679	321	776	224	710	290	918	82
Chaupal Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Sirmur District	*967*	*33*	*929*	*71*	*904*	*96*	*919*	*81*
Pachhad Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Rainka Tehsil	1,000	0	1,000	0	1,000	0	1,000	0
Nahan Tehsil	360	640	573	427	733	267	620	380
Paonta Tehsil	996	4	973	27	817	183	942	58
Kinnaur District	*1,000*	*0*	*1,000*	*0*	*1,000*	*0*	*1,000*	*0*
Nachar Sub-Division	1,000	0	1,000	0	1,000	0	1,000	0
Kalpa Sub-Division	1,000	0	1,000	0	1,000	0	1,000	0
Poo Sub-Division	1,000	0	1,000	0	1,000	0	1,000	0

CHAPTER III

TENURE STATUS OF CENSUS HOUSEHOLDS

This Chapter deals with tenure status of Census Households living in Census Houses used wholly or partly as dwellings. The Census Houses according to their uses have been classified into 12 categories in Table E-I, three of these are:—

(1) *Dwellings*—Census House used purely as dwellings.

(2) *Shop-cum-dwellings* — Census Houses used as dwellings combined with their use as shops also.

(3) *Workshop-cum-dwellings* — Census Houses used as dwellings combined with their use as workshops also.

The three categories of the Census Houses were used by the Census Households for purposes of residence, as pure dwellings in the case of first category, and for dwelling combined with their use as shops or workshops in the case of the latter categories. The entire population of the Pradesh did not reside in these three categories of Census Houses. A fraction of the population resided in some other types of Census Houses too, such as hospitals, jails, chummeries, hotels, hostels, boarding houses, tourist homes, inspection houses, office premises, school premises, temple premises, restaurants, eating places, etc. Data in reference to their use partly as places of residence has been tabulated under the column heading 'Dwellings with other uses' in Table E-II. Thus from the point of view of dwellings in which the Household population of the Pradesh resided, the Census Houses stand classified into four categories. (1) Dwellings, (2) Shop-cum-dwellings, (3) Workshop-cum-dwellings and (4) Dwellings with other uses. All these four categories of dwellings occupied by Census Households (20 per cent sample), classifying them further according to their tenure status as owned or rented, will be discussed in this Chapter.

Tenure—Distinction between 'owned' and 'rented'

A Household may be residing in any of the dwellings either by virtue of owning the house or having rented it. The term 'owned' signified that a Census House in which a Household resided had been constructed, purchased or inherited by the Household. The term 'rented' meant that the Household was living in a Census House not owned by it. A Household residing in a Census House not owned might not be paying any rent, but it was considered as a rented house. The payment of rent in cash or kind was not, therefore, material while ownership or non-ownership of the Census House was the decisive factor. Institutional Census Houses like boarding houses, hostels, messes, where Households resided have been classified as rented.

Reference to tables

Absolute figures have been compiled in the Table E-II on the basis of 20 per cent sample of Census Households. The sample marking was done in col. 11 of the house-lists and the corresponding entries in the houselists in relation to the marked samples as obtaining in col. 4 regarding Census Houses (Dwellings, Shop-cum-dwellings, Workshop-cum-dwellings and Dwellings with other uses) and in col. 14 regarding tenure status (owned or rented) were taken into account for preparing the Table. This has been prepared for the Pradesh, all the districts and tehsils/sub-tehsils/sub-divisions for rural and urban areas separately. Column 4 of the Table shows the total number of Census Households (20 per cent sample) and columns 5 to 8 show the distribution of these Households in Census Houses used as 'Dwellings', 'Shop-cum-dwellings', 'Workshop-cum-dwellings' and 'Dwellings with other uses'. Column 3 of the Table gives information about the tenure status of the sample Census Households. Two Subsidiary Tables E-II.1 and E-II.2 have been compiled from the main Table E-II. The Subsidiary Table E-II.1 gives information about the distribution of 1,000 Census Households living in Census Houses used wholly or partly as dwellings by types of Census Houses in rural areas. In the Subsidiary Table E-II.2 the information is shown about the distribution

of 1,000 Census Households living in Census Houses used wholly or partly as dwellings by types of Census Houses and tenure status in urban areas. Proportionate figures of tenure status are shown in the Subsidiary Table E-II. 2 in respect of urban areas, though in the main Table E-II, figures by tenure status for the four categories of dwellings are shown both for rural and urban areas. Information about tenure status is of significance mainly in urban areas and hence not shown in Subsidiary Table E-II. 1 in respect of rural areas.

Distribution of dwellings, shop-cum-dwellings, workshop-cum-dwellings and dwellings with other uses.

Distribution of 1,000 Census Households by types of Census Houses used as dwellings, shop-cum-dwellings, workshop-cum-dwellings and dwellings with other uses, for the rural and urban areas of the Pradesh and districts is compared in the following Statement III-1.

STATEMENT III-1

Distribution of 1,000 sample Census Households by types of dwellings

Union Territory/District	Dwellings		Shop-cum-dwellings		Workshop-cum-dwellings		Dwellings with other uses	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9
HIMACHAL PRADESH	**925**	**856**	**10**	**35**	**61**	**93**	**4**	**16**
Chamba	912	971	5	3	81	23	2	3
Mandi	944	806	10	44	44	124	2	26
Bilaspur	936	821	9	39	51	127	4	13
Mahasu	916	841	14	59	65	79	5	21
Sirmur	926	908	9	11	61	77	4	4
*Kinnaur	848	..	7	..	131	..	14	..

* There are no towns in Kinnaur District.

Distribution of 1,000 Census Households into different types of dwellings in the Pradesh as well as in the districts of Mandi, Bilaspur, Mahasu and Sirmur shows that the proportions of pure dwellings in occupation of the Census Households are larger in rural areas and in the case of the remaining three types of dwellings the proportions are larger for urban areas. In Chamba District, the proportions are larger in urban areas for pure dwellings and dwellings with other uses and just the reverse for the other two types of dwellings.

The larger proportions for the urban areas as compared with the rural areas in the Pradesh and in the districts of Mandi, Bilaspur, Mahasu and Sirmur in respect of workshop-cum-dwellings is indicative of the fact that after every 1,000 Census Households there are proportionately more 'Households' engaged in household industries in urban areas than in the rural areas. In Chamba District it is just the reverse.

The Statement III-1 reveals that in the case of dwellings with other uses the proportions are larger in urban areas. This is because proportionately larger number of Census Households would be residing in the premises of Census Houses — meant for use as hospitals, hotels, hostels, tourist homes, office premises in the urban areas than in rural areas for reasons of duties and occupations involved.

Distribution of 1,000 sample Census Households by types of dwellings in rural areas (State/Union Territories).

The Statement III-2 compares the distribution of 1,000 Census Households by types of dwellings in the rural areas of the States and Union Territories of India, for which figures are available.

STATEMENT III-2

Distribution of 1,000 sample Census Households by types of dwellings in rural areas (States/Union Territories)

States/Union Territories	Dwellings	Shop-cum-dwellings	Workshop-cum-dwellings	Dwellings with other uses
1	2	3	4	5
STATES				
Andhra Pradesh	984	3	12	1
Assam	983	14	2	1
Bihar	975	7	17	1
Gujarat	987	5	4	4
Jammu & Kashmir	969	5	23	3
Kerala	995	4	1	N
Madhya Pradesh	948	6	44	2
Madras	981	6	10	3
Maharashtra	975	5	18	2
Mysore	988	2	9	1
Orissa	996	1	2	1
Punjab	990	5	2	3
Rajasthan	996	2	2	N
Uttar Pradesh	997	1	1	1
West Bengal	990	5	2	3
UNION TERRITORIES AND OTHER AREAS				
Andaman & Nicobar Islands	971	19	0	10
Dadra & Nagar Haveli	875	6	119	0
Delhi	984	8	2	6
HIMACHAL PRADESH	925	10	61	4
Laccadive, Minicoy & Amindivi Islands	998	2	0	0
Manipur	991	5	1	3
Nagaland	997	2	N	1
N.E.F.A.	939	44	1	16
Pondicherry	989	4	6	1
SIKKIM	869	20	5	6
Tripura	982	7	3	8

N=Negligible

Tenure status

Tenure status is of significance mainly in urban areas. Everyone residing in towns does not own a house, particularly in the case of people who have gone there in search of work as means of livelihood. Outsiders in service, commercial and industrial under-takings or following any fruitful occupations in towns will demand rented accommodations. Industrial and commercial growths in towns is encouraging people from outside to come up, who would always require some sort of accommodation to begin with. On the population basis of workers none of the towns in Himachal Pradesh can be classified as commercial or industrial. They are residential towns. But whatever industrial or commercial growth is taking place that does need rented accommodation. The Statement III-3 shows the distribution of 1,000 sample Census

STATEMENT III-3

Distribution of 1,000 sample Census Households by types of dwellings owned and rented in urban areas

Union Territory/ District	Total Dwellings		Dwellings		Shop-cum-dwellings		Workshop-cum-dwellings		Dwellings with other uses	
	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9	10	11
HIMACHAL PRADESH	533	467	450	406	14	21	62	31	7	9
Chamba	529	471	503	468	3	0	23	0	0	3
Mandi	632	368	509	297	19	25	89	35	15	11
Bilaspur	616	384	482	339	20	19	111	16	3	10
Mahasu	277	723	234	607	18	41	20	59	5	16
Sirmur	603	397	538	370	6	5	59	18	0	4
Kinnaur	0	0	0	0	0	0	0	0	0	0

Households by types of dwellings, owned and rented in urban areas upto district level. For details the Subsidiary Table E-II. 2 may be seen at the end of this Chapter.

In the total of all types of dwellings for urban areas the proportion of owned dwellings per 1,000 Census Households is the highest in Mandi District (632) while the lowest is in Mahasu District (277). In pure dwellings the proportion per 1,000 Census Households is the highest in Sirmur District (538) and the lowest again in Mahasu District (234). Comparatively amongst the districts with urban areas. Mahasu has the lowest proportions of owned dwellings in all its four categories of dwellings against the rented ones. In the Statement III-3 the proportions of owned workshop-cum-dwellings per 1,000 Census Households are higher than that of rented for the Pradesh as a whole and in the districts excepting Mahasu District.

To prove the fact that tenure status is of significance mainly in urban areas, the following Statement III-4 showing distribution of 1,000 sample Census Households by types of different dwellings and tenure status in rural areas may be studied for comparison.

STATEMENT III-4

Distribution of 1,000 *sample Census Households by types of dwellings and tenure status in rural areas*

Union Territory/ District	Total Dwellings		Dwellings		Shop-cum-dwellings		Workshop-cum-dwellings		Dwellings with other uses	
	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9	10	11
HIMACHAL PRADESH	946	54	880	46	7	3	57	3	2	2
Chamba .	941	59	858	54	4	1	78	3	1	1
Mandi .	968	32	918	26	7	3	42	2	1	1
Bilaspur .	961	39	902	34	8	1	49	2	2	2
Mahasu .	915	85	846	70	8	6	59	6	2	3
Sirmur .	953	47	888	38	6	3	57	4	2	2
Kinnaur .	925	75	787	62	6	0	127	4	5	9

On comparison of the Statements III-3 and III-4, it will be observed that proportion of owned houses after every 1,000 Census Households is greater in rural (946) than in urban areas (533) of the Pradesh. In other words, in villages, nine out of every ten Census Households possess houses of their own as against five in towns.

In the rural areas of the Pradesh the incidence of rented dwellings is not lacking. It is very definite that it was not so very high in the past as it is now. With the rapid pace of development it is likely to increase further in future. Opening of more educational and medical institutions, and establishment of Community Development Programme Units, sheep breeding farms, agricultural units and other offices, all opening extensively in the field will create demand for rented accommodation. The employees engaged in these development activities will need accommodation. Scope for extension of trade and commerce is also there. Increased agricultural production and progress in small scale industries in the villages will invite traders from outside, though not many, to sell goods to the villagers and purchase their products for sale outside. In a majority of the cases the traders may spring up from amongst the villagers, who are not shy to take up such profitable activities. The traders from outside will also create demand for rented accommodation.

Points of interest to note in the Statement III-4 are that proportions of owned shop-cum-dwellings and workshop-cum-dwellings in rural areas are very high as compared with the rented ones.

The following Statement III-5 shows the distribution of 1,000 sample Census Households into different categories of dwellings and their tenure status in urban areas of the States Union Territories in India.

STATEMENT III-5

Distribution of 1,000 sample Census Households by types of dwellings and tenure status in urban areas (States/Union Territories)

States/Union Territories	Dwellings		Shop-cum-dwellings		Workshop-cum-dwellings		Dwellings with other uses	
	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9
STATES								
Andhra Pradesh	595	388	4	3	6	2	1	1
Assam	419	493	26	46	4	6	2	4
Bihar	534	413	15	12	14	6	2	4
Gujarat	384	594	2	3	5	4	2	6
Jammu and Kashmir	695	271	5	6	10	3	4	6
Kerala	715	279	1	2	2	1	N	N
Madhya Pradesh	405	541	10	7	26	10	N	1
Madras*	455	496	4	5	19	11	2	1
Maharashtra	290	674	3	8	9	8	1	7
Mysore	459	517	2	3	9	7	2	1
Orissa	605	368	7	9	1	1	4	5
Punjab	527	454	3	7	2	3	2	2
Rajasthan	592	399	2	2	3	1	N	1
Uttar Pradesh	516	470	2	2	7	1	1	4
West Bengal	332	621	4	25	1	7	2	8
UNION TERRITORIES AND OTHER AREAS								
Andaman & Nicobar Islands	319	596	7	71	0	0	0	7
Dadra & Nagar Haveli	0	0	0	0	0	0	0	0
Delhi	300	683	3	8	N	1	1	4
HIMACHAL PRADESH	450	406	14	21	62	31	7	9
Laccadive, Minicoy and Amindivi Islands	0	0	0	0	0	0	0	0
Manipur	955	31	5	4	N	1	3	1
Nagland	459	483	9	24	0	8	3	14
N.E.F.A.	170	769	34	10	1	0	3	13
Pondicherry	516	465	4	4	5	5	1	N
SIKKIM	328	545	25	80	0	16	6	0
Tripura	578	344	13	14	5	2	20	24

N=Negligible

* The horizontal total will be 1,000 only when the following per 1,000 distribution of Census Households living in Census Houses, the tenure status of which have not been stated, is taken into account.

State	Tenure status not stated in Census Houses used as			
	Dwellings	Shop-cum-dwellings	Workshop-cum-dwellings	Dwellings with other uses
1	2	3	4	5
Madras	4	N	N	N

N=Negligible

Subsidiary Table E-II. 1

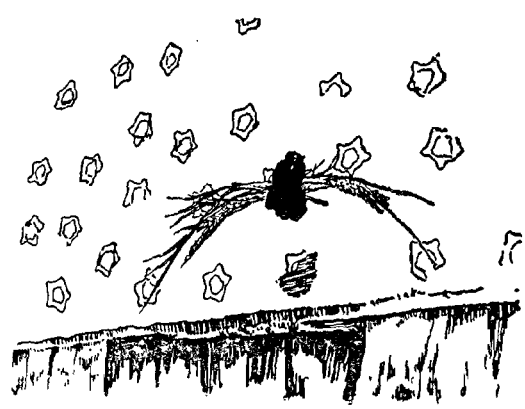
Distribution of 1000 *Census Households living in Census Houses used wholly or partly as dwellings by types of Census Houses in rural areas* (Based on 20% sample)

Union Territory/ District/Tehsil/ Sub-Tehsil/ Sub-Division	Dwellings	Shop-cum-dwellings	Workshop-cum-dwellings	Dwellings with other uses
1	2	3	4	5
HIMACHAL PRADESH	**925**	**10**	**61**	**4**
Chamba District	*912*	*5*	*81*	*2*
Chaurah Tehsil	915	6	77	2
Pangi Sub-Tehsil	704	6	290	0
Chamba Tehsil	910	2	87	1
Bhattiyat Tehsil	923	9	66	2
Brahmaur Sub-Tehsil	966	0	34	0
Mandi District	*944*	*10*	*44*	*2*
Jogindarnagar Tehsil	948	10	38	4
Mandi Sadar Tehsil	961	14	23	2
Sarkaghat Tehsil	937	12	49	2
Chichot Tehsil	934	5	60	1
Sundarnagar Tehsil	926	15	57	2
Karsog Tehsil	947	5	46	2
Bilaspur District	*936*	*9*	*51*	*4*
Ghamarwin Tehsil	947	10	39	4
Bilaspur Sadar Tehsil	920	8	67	5
Mahasu District	*916*	*14*	*65*	*5*
Arki Tehsil	902	20	74	4
Seoni Sub-Tehsil	912	23	61	4
Kumharsain Sub-Tehsil	940	14	33	13
Rampur Tehsil	886	6	105	3
Rohru Tehsil	905	4	88	3
Jubbal Tehsil	918	20	49	13
Kotkhai Sub-Tehsil	920	16	58	6
Theog Tehsil	929	17	51	3
Kasumpti Tehsil	928	21	44	7
Solon Tehsil	927	11	61	1
Chaupal Tehsil	921	11	61	7
Sirmur District	*926*	*9*	*61*	*4*
Pachhad Tehsil	923	12	57	8
Rainka Tehsil	926	5	65	4
Nahan Tehsil	917	0	80	3
Paonta Tehsil	933	13	53	1
Kinnaur District	*848*	*7*	*131*	*14*
Nachar Sub-Division	913	3	82	2
Kalpa Sub-Division	773	10	205	12
Poo Sub-Division	872	6	97	25

Subsidiary Table E-II. 2

Distribution of 1,000 *Census Households living in Census Houses used wholly or partly as dwellings types of Census Houses and tenure status in urban areas* (Based on 20% sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Dwellings		Shop-cum-dwellings		Workshop-cum-dwellings		Dwellings with other uses	
	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8	9
HIMACHAL PRADESH	450	406	14	21	62	31	7	9
Chamba District	*503*	*468*	*3*	*0*	*23*	*0*	*0*	*3*
Chamba Tehsil	503	468	3	0	23	0	0	3
Mandi District	*509*	*297*	*19*	*25*	*89*	*35*	*15*	*11*
Jogindarnagar Tehsil	343	504	15	73	36	7	0	22
Mandi Sadar Tehsil	509	324	13	13	81	46	9	5
Sundarnagar Tehsil	597	133	34	27	133	27	34	15
Bilaspur District	*482*	*339*	*20*	*19*	*111*	*16*	*3*	*10*
Bilaspur Sadar Tehsil	482	339	20	19	111	16	3	10
Mahasu District	*234*	*607*	*18*	*41*	*20*	*59*	*5*	*16*
Arki Tehsil	493	288	68	41	41	41	14	14
Kumharsain Sub-Tehsil	59	529	59	176	0	59	0	118
Rampur Tehsil	337	461	0	29	38	115	10	10
Theog Tehsil	158	474	66	105	40	118	13	26
Solon Tehsil	172	754	0	24	6	32	0	12
Sirmur District	*538*	*370*	*6*	*5*	*59*	*18*	*0*	*4*
Nahan Tehsil	546	377	0	0	64	13	0	0
Paonta Tehsil	487	329	40	39	26	53	0	26



CHAPTER IV

FACTORIES AND WORKSHOPS

This Chapter deals with Census Houses which housed workshops or worksheds and factories. Data about them was collected vide columns 5 to 8 of the houselist (*See Section IV—Annexure*). A reference about the definitions of the terms and concepts used and the instructions given for filling the houselist will be found helpful here in studying the data analysed in this Chapter.

Houselist columns 5 to 8—"If this Census House is used as an establishment, workshop or factory":—These columns applied only in cases where the Census House was a factory or a workshop, where some kind of production, processing, repair or servicing was undertaken or where goods or articles were made and sold. A 'factory' was recorded as such if registered under the Indian Factories Act.

Houselist column 5—"Name of establishment or proprietor":—Name of the establishment was given for factories or large manufacturing concerns and the names of the proprietors in the case of small workshops and establishments had been recorded in column 5 of the houselist.

Houselist column 6—"Name of product(s), repair or servicing undertaken":—In column 6 of the houselist had been recorded the actual work that was being done in the establishment, factory or workshop.

Houselist column 7—"Average number of persons employed daily last week (including proprietor or household members, if any)":—The total number of workers in a week including apprentices, either paid or unpaid, employed in the factory or workshop, including the owner or proprietor and any of his family members (if working) were taken into account and the average number of persons working per day during the week were recorded.

Houselist column 8—"Kind of fuel or power, if machinery is used":—If the factory or workshop used steam or diesel engine or fuel, e.g., kerosene, soft coke, electricity, water mill etc., for running the machinery used for production, servicing or repairs, the fuel or power actually used was recorded.

This data has not been collected before. Very comprehensive statistics about the types of industrial establishments have been collected and tabulated. The International Standard Industrial Classification (ISIC) has been adopted to classify the industrial establishments according to the products manufactured, processed or repaired in them.

The whole range of economic activities has been classified under the following nine 'Divisions' and a one digit 'Code number' has been given to each in the International Standard Industrial Classification (ISIC).

0	Agriculture, Livestock, Forestry, Fishing and Hunting.
1	Mining and Quarrying.
2&3	Manufacturing.
4	Construction.
5	Electricity, Gas, Water and Sanitary Services.
6	Trade and Commerce.
7	Transport, Storage and Communication.
8	Services.
9	Activities not adequately described.

Each 'Division' is further sub-divided into 'Major Groups' not exceeding ten. Each 'Major Group' has two digit code number. The first digit refers to the 'Division', and with the addition of a second digit, the two digits together represent the 'Major Group' under a 'Division'. A 'Major Group' is again divided into 'Minor Groups' not exceeding ten in number. The Minor Group has three digit code number. The 'Minor Group' is formed by a third digit added to the 'Major Group' code number.

The data collected in the houselists relate to the economic activity of 'Manufacturing', Divisions 2 and 3 including repairing and servicing of the articles. The establishments, workshops and factories have thus been classified under these two 'Divisions' down to their 'Minor Groups'. The 'Major and Minor Groups' under these 'Divisions' alongwith

their code numbers have been reproduced in Part of this report. These 'Minor Groups' which have incidence in the Pradesh have been *underlined.*

Reference to tables

The statistics collected about establishments, workshops and factories have been tabulated in the Table E-III, classified by industry, type of power and no power used and size of employment. This gives absolute figures on the basis of full count. The Table like all other E-Series Tables has been prepared down to tehsil/sub-tehsil/sub-division level, but printing has been confined upto district level. Printing down to tehsil/sub-tehsil/sub-division level would have taken more space. For the benefit of the readers, statistics about industries extracted from the houselists are also being printed in District Census Handbooks. In each District Census Handbook the figures will be found arranged in a run on form for total, rural and urban areas of the district separately in ascending order of 'Minor Group' showing the total number of establishments, workshops and factories within brackets next to each 'Minor Group'. Similarly the figures for tehsil/sub-tehsil/sub-division for total, rural and urban areas separately as also for each village and town are being provided.

Three Subsidiary Tables E-III.1, E-III.2 and E-III.3, giving proportionate figures per 1,000 workshops, worksheds and factories, have also been prepared. These may be seen at the end of this Chapter. They give information down to the district level, for rural and urban areas separately like the main Table E-III.

In the main Table E-III and its Subsidiary Table E-III.2 size of employment is shown by seven ranges viz., (1) 1 person, (2) 2 to 5 persons, (3) 6 to 9 persons, (4) 10 to 19 persons, (5) 20 to 49 persons, (6) 50 to 99 persons and (7) 100 persons and above. The data of actual number of persons employed in each 'Minor Group' of industry or power have not been shown. But for purposes of comparison total or actual number of persons engaged in each 'Minor Group' of industry have been given in some of the analytical statements appearing in this Chapter.

Limitations of data collected

Instructions to the census staff were not to leave out any structure without numbering and entering its particulars on the houselist. In the case of some large manufacturing units the processes were carried out in separate buildings and sheds. Each of these had given a separate Census House number and for census purposes each one was treated as a manufacturing unit. Thus an increase has resulted in the number of the manufacturing units. This has been considered in our analysis.

Some manufacturing concerns turn out a variety of articles. In their case in the column meant to list the commodities, manufactured or processed, a number of articles were mentioned. In the Tabulation Office, coding was done on the basis of the first commodity mentioned.

The industrial activities carried out in the open, were not listed, since they could not be associated with any house or structure. Examples of such cases are weaving looms fixed in the open, cobblers working outside, brick kilns in the open. Seasonal work of manufacturing *gur* also did not figure firstly because the house-listing period did not coincide with the *gur* making season and then again it is done in the open fields not associated with any structure.

Factories, workshops and worksheds—their number and size of employment

The distribution of number of factories, worksheds and workshops and the number of persons employed in them in the six districts of Himachal Pradesh is given in the following Statement IV-1.

STATEMENT IV-1

Distribution of factories, worksheds and workshops and persons employed

Union Territory/ District	Factories, Workshops and Worksheds		Persons employed	
	No. of Factories Workshops and Worksheds	Percentage to total	No. of persons employed	Percentage to total
1	2	3	4	5
HIMACHAL PRADESH	**38,251**	**100·00**	**47,266**	**100·00**
Chamba . .	6,969	18·22	8,364	17·69
Mandi . .	11,789	30·82	13,644	28·87
Bilaspur . .	3,009	7·87	3,731	7·89
Mahasu . .	10,261	26·83	13,447	28·46
Sirmur . .	4,227	11·04	5,575	11·79
Kinnaur . .	1,996	5·22	2,505	5·30

It will be observed from the Statement that there are 38,251 factories, workshops and worksheds in the Pradesh and 47,266 persons are engaged in them. Mandi District has the highest number followed by Mahasu, Chamba, Sirmur, Bilaspur and Kinnaur in descending order. In regard to persons engaged the same order obtains. This very order obtains in the population of the district too, Mandi District has the highest population of 384,259 amongst the districts followed by Mahasu (358,969), Chamba (210,579), Sirmur (197,551), Bilaspur (158,806) and Kinnaur (40,980) in descending order.

Industries (ISIC minor groups) and units under each

The following Statement IV-2 shows industries arranged in descending order of number of units under each of them in the Pradesh.

STATEMENT IV-2

Industries arranged in descending order of number of units in Himachal Pradesh

Sl. No.	Rank order	ISIC Minor Group	Description	No. of units	Percentage to total
1	2	3	4	5	6
1	I	200	Production of rice, atta, flour	16,874	44·11
2	II	273	Making of textile garments—headgear	4,118	10·77
3	III	255	Wool weaving in handloom	4,106	10·73
4	IV	311	Manufacture of shoes and other leather footwear	4,003	10·47
5	V	369	Manufacture of sundry hardwares	2,829	7·40
6	VI	282	Manufacture of structural wooden goods	2,197	5·74
7	VII	288	Manufacture of materials from bamboo, leaves and other allied products	1,518	3·97
8	VIII	350	Manufacture of earthenware and earthen pottery	880	2·30
9	IX	393	Manufacture of jewellery, silverware	678	1·77
10	X	207	Production of edible fats and oils	399	1·04
			Total 1 to 10	37,602	98·30
11	XI	314	Repair of shoes and other leather footwear	79	
12	XII	365	Manufacture of brass and bell metal products	71	
13	XIII	236	Manufacture of Khadi textile in handlooms	65	
14	XIV	280	Sawing and planing of wood	63	
15	XV	281	Manufacture of wooden furniture and fixtures	41	
16	XVI	392	Assembling and repairing of watches and clocks	30	
17	XVII	205	Production of bread, biscuits, cake and other bakery products	28	
18	XVIII	388	Repairing of bicycles and tricycles	25	
19	XIX	230	Cotton ginning, cleaning, carding	18	
20	XX	251	Wool cleaning and processing	17	
21	„	378	Repairing & servicing of radios	17	
22	XXI	384	Repairing and servicing of motor vehicles	16	

STATEMENT IV-2—*contd.*

Industries arranged in descending order of number of units in Himachal Pradesh—contd.

Sl. No.	Rank order	ISIC Minor Group	Description	No. of units	Percentage to total
1	2	3	4	5	6
23	XXII	368	Enamelling, galvanising, plating, polishing and welding of metal products	15	
24	XXIII	271	Manufacture of hosiery and other knitted fabrics and garments	14	
25	XXIII	362	Manufacture of armaments (guns)	14	
26	XXIV	214	Production of aerated and mineral water	13	
27	XXV	202	Production of indigenous sugar, gur	10	
28	XXVI	206	Production of butter, ghee	7	
29	XXVI	333	Manufacture of ammunition, explosives and fire works	7	
30	XXVII	279	Processing and manufacture of textile products	6	
31	,,	284	Manufacture of other wooden products such as utensils, toys, artwares	6	
32	,,	289	Manufacture of other wood and allied products	6	
33	,,	335	Manufacture of medicines	6	
34	,,	343	*Manufacture of structural stone goods, stone dressing and stone crushing*	6	
35	XXVIII	210	Production of distilled Spirits, Wines, Liquor, from alcoholic malt, fruit and malts in distillery and brewery	5	
36	,,	244	Manufacture of products like rope, cordage	5	
37	,,	270	Manufacture of carpet and all other similar types of textile products	5	
38	,,	399	Manufacture and repair work of goods not assignable to any other group	5	
39	XXIX	233	Cotton dyeing, bleaching	4	
40	,,	272	Embroidery	4	
41	,,	302	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry	4	
42	XXX	217	Processing of tea in factories	3	
43	,,	239	Manufacturing of cotton cordage, rope and twine	3	
44	,,	372	Manufacture of small machine tools and machine parts	3	
45	XXXI	262	Spinning of silk other than in mills	2	
46	,,	274	Manufacture of made up textile goods except wearing apparel such as curtains, pillow cases, bedding materials, mattress, textile bags	2	
47	,,	287	Manufacture of boxes and packing cases other than plywood	2	
48	,,	303	All types of binding, stitching, sizing and other allied work connected with *binding industry*	2	
49	,,	336	Manufacture of soap and other washing and cleaning compounds	2	
50	,,	337	Manufacture of turpentine, resin	2	
51	,,	340	Manufacture of structural clay products such as bricks, tiles	2	
52	,,	342	Manufacture of lime	2	
53	,,	356	Manufacture of earthen toys and artwares except those covered by code No. 355	2	
54	XXXII	201	Production of sugar and syrup from sugar cane in mills	1	

STATEMENT IV-2—*concld.*

Industries arranged in descending order of number of units in Himachal Pradesh—concld.

Sl. No.	Rank order	ISIC Minor Group	Description	No. of units	Percentage to total
1	2	3	4	5	
55	XXXII	211	Production of country liquor	1	
56	„	237	Printing of cotton textile	1	
57	„	278	Manufacture of umbrellas	1	
58	„	292	Manufacture of products such as paper bags, boxes, cards, envelopes and moulded pulp goods from paper, paper board and pulp	1	
59	„	310	Curing, tanning and finishing of hides and skins and preparation of finished leather	1	
60	„	339	Manufacture of other chemicals and chemical products not covered above (including inedible oils and fats)		
61	„	379	Manufacture of electric machinery and apparatus, appliances not specified above, repairing and servicing of electrical apparatus, heaters, oven etc.	1	
62	„	389	Manufacture of other transport equipment not covered above such as animal drawn and hand-drawn vehicles	1	
63	„	391	Manufacture of scientific, medical and surgical instruments and equipment and supplies	1	
			Total 11 to 63	649	1·70
			Total (1 to 63)	38,251	100·00

The Statement IV-2 reveals that there are 63 different types of industries in the Pradesh established in regular structures i.e., Census Houses. Amongst them ISIC Minor Group 200—production of rice, atta, flour claims the largest number of units, i.e., 16,874 or 44 per cent of the total units under all the industries listed, of which 16,807 are water mills. Himachal Pradesh is rich in water resources. The five rivers Chenab, Ravi, Beas, Sutlej and Jamuna flow through it. These rivers are fed by innumerable big and small rivulets, streams and *khads*. It is understandable that the people have devised ways and means to harness the free natural water power from the *khads* and streams to serve their basic needs for grinding flour and husking of rice. Since the setting up of flour mills (*gharats*) and rice husking mills cost little and does not involve import of machinery, or a high technical skill to run them, this industry has assumed the shape of the largest industry in the Pradesh.

The next in order of number of units is ISIC Minor Group 273 — making of textile garments. There are as many as 4,118 units under this industry, 11 per cent of the total units under all the industries listed. Obviously these are workshops run by tailors.

Food and clothing are the basic common needs of mankind and naturally industrial units engaged in them top the list.

Third in order of the number of units is ISIC Minor Group 255 — wool weaving in handlooms. There are as many as 4,106 units or 11 per cent of the total industrial units listed for the Pradesh. In the Pradesh generally wherever woollen cloth is prepared the greatest portion of it is for domestic use, and marketing on small scale is not lacking. Himachal Pradesh; being mostly a hilly tract with cold climate, people cannot do without woollen garments. Gaddis and Kinnauras are the largest rearers of sheep and goats and produce sufficient wool for preparing of woollen cloth which they use commonly.

Woollen *pattis* (cloth) *pattus* (blankets), rugs, pashmina shawls, *thobi* are the products of 'wool weaving in handlooms'.

Manufacture of shoes and other leather footwears, ISIC Minor Group 311, occupies the fourth position in the order of number of

units and has 4,003 units, 10 per cent of the total units under all the industries listed. This is followed by ISIC Minor Group 369 — manufacture of sundry hard-wares with 2,829 units or 7 per cent; ISIC Minor Group 282 — manufacture of structural wooden goods with 2,197 units or 6 per cent; ISIC Minor Group 288 — manufacture of materials from bamboo, leaves and other allied products with 1,518 units or 4 per cent; ISIC Minor Group 350 — manufacture of earthenware and earthen pottery with 880 units, or 2 per cent; ISIC Minor Group 393 — manufacture of jewellery, silverware with 678 units or 2 per cent; and ISIC Minor Group 207 — production of edible fats and oil with 399 units or 1 per cent of the total units under all the industries listed. Thus from the point of view of numerical strength of units, which have percentage of more than one to the total units, under all industries listed, only ISIC Minor Groups 200, 273, 255, 311, 369, 282, 288, 350, 393, and 207 command significance in the Pradesh as a whole. For similar estimation in the rural and urban areas two separate Statements IV-3 and IV-4 have been prepared.

STATEMENT IV-3

Industries arranged in descending order of number of units in Himachal Pradesh—RURAL

Sl. No.	Rank order	ISIC Minor Group	Description	No. of units	Percentage to total
1	2	3	4	5	6
1	I	200	Production of rice, atta, flour	16,722	46·01
2	II	255	Wool weaving in Handloom	4,067	11·19
3	III	311	Manufacture of shoes and other leather foot-wear	3,634	10·00
4	IV	273	Making of textile garments	3,569	9·82
5	V	369	Manufacture of sundry hardwares	2,725	7·50
6	VI	282	Manufacture of structural wooden goods	2,008	5·53
7	VII	288	Manufacture of materials from bamboo, leaves and other allied products	1,473	4·05
8	VIII	350	Manufacture of earthenware and earthen pottery	843	2·32
9	IX	393	Manufacture of jewellery, silverware	552	1·52
10	X	207	Production of edible fats and oils	382	1·05
			Total 1 to 10	35,975	98·99
11	XI	314	Repair of shoes and other leather footwear	79	
12	XII	365	Manufacture of brass and bell metal products	59	
13	XIII	280	Sawing and planing of wood	45	
14	XIV	236	Manufacturing of Khadi textile in handlooms	43	
15	XV	251	Wool cleaning and processing	16	
16	,,	281	Manufacture of wooden furniture and fixtures	16	
17	XVI	230	Cotton ginning, cleaning, carding	14	
18	XVII	202	Production of indigenous sugar, gur	10	
19	XVIII	368	Enamelling, galvanising, plating, polishing and welding of metal products	9	
20	XIX	271	Manufacture of hosiery and other knitted fabrics and garments	6	
21	XX	244	Manufacture of other products like rope, cordage	5	
22	,,	289	Manufacture of other wood and allied products not covered above	5	

STATEMENT IV-3—*concld.*

Industries arranged in descending order of number of units in Himachal Pradesh—RURAL—*concld*

Sl. No.	Rank order	ISIC Minor Group	Description	No. of units	Percentage to total
1	2	3	4	5	6
23	XX	362	Manufacture of armaments (guns)	5	
24	,,	378	Repairing and servicing of radios	5	
25	,,	384	Repairing and servicing of motor vehicles	5	
26	,,	388	Repairing of bicycles and tricycles	5	
27	XXI	205	Production of bread, biscuits, cake and other bakery products	4	
28	,,	206	Production of butter, ghee	4	
29	XXII	217	Processing of tea in factories	3	
30	,,	335	Manufacture of medicines	3	
31	XXIII	233	Cotton dyeing, bleaching	2	
32	,,	270	Manufacture of carpet and all other similar types of textile products	2	
33	,,	272	Embroidery	2	
34	,,	279	Processing and manufacture of textile products	2	
35	,,	340	Manufacture of structural clay products such as bricks, tiles	2	
36	,,	343	Manufacture of structural stone goods, stone dressing and stone crushing	2	
37	,,	392	Assembling and repairing of watches and clocks	2	
38	XXIV	201	Production of sugar and syrup from sugar cane in mills	1	
39	,,	210	Production of distilled spirits, wines, liquor from alcoholic malts, fruit and malts in distillery and brewery	1	
40	,,	211	Production of country liquor	1	
41	,,	239	Manufacturing of cotton cordage, rope and twine	1	
42	,,	262	Spinning of silk other than in mills	1	
43	,,	284	Manufacture of other wooden products such as utensils, toys, artwares	1	
44	,,	287	Manufacture of boxes and packing cases other than plywood	1	
45	,,	310	Curing, tanning and finishing of hides and skins and preparation of finished leather	1	
46	,,	333	Manufacture of ammunition, explosives and fireworks	1	
47	,,	336	Manufacture of soap and other washing and cleaning compounds	1	
48	,,	337	Manufacture of turpentine, resin	1	
49	,,	372	Manufacture of small machine tools and machine parts	1	
			Total 11 to 49	367	1·01
			Total (1 to 49)	36,342	100·00

STATEMENT IV-4

Industries arranged in descending order of number of units in Himachal Pradesh—URBAN

Sl. No.	Rank order	ISIC Minor Group	Description	No. of units	Percentage to total
1	2	3	4	5	6
1	I	273	Making of textile garments	549	28·76
2	II	311	Manufacture of shoes and other leather footwear	369	19·33
3	III	282	Manufacture of structural wooden goods	189	9·90
4	IV	200	Production of rice, atta, flour	152	7·96

STATEMENT IV-4—*contd.*

Industries arranged in descending order of number of units in Himachal Pradesh—URBAN—contd.

Sl. No.	Rank order	ISIC Minor Group	Description	No. of units	Percentage to total
1	2	3	4	5	6
5	V	393	Manufacture of jewellery, silverware	126	6·60
6	VI	369	Manufacture of sundry hardwares	104	5·45
7	VII	288	Manufacture of materials from bamboo, leaves and other allied products	45	2·36
8	VIII	255	Wool weaving in handloom	39	2·03
9	IX	350	Manufacture of earthenware and earthen pottery	37	1·94
10	X	392	Assembling and repairing of watches and clocks	28	1·47
11	XI	281	Manufacture of wooden furniture and fixtures	25	1·31
12	XII	205	Production of bread, biscuits, cake and other bakery products	24	1·26
13	XIII	236	Manufacturing of Khadi textile in handlooms	22	1·15
14	XIV	388	Repairing of bicycles and tricycles	20	1·05
			Total 1 to 14	1,729	90·57
15	XV	280	Sawing and planing of wood	18	
16	XVI	207	Production of edible fats and oils	17	
17	XVII	214	Production of aerated and mineral water	13	
18	XVIII	365	Manufacture of brass and bell metal products	12	
19	,,	378	Repairing and servicing of radios	12	
20	XIX	384	Repairing and servicing of motor vehicles	11	
21	XX	362	Manufacture of armaments (guns)	9	
22	XXI	271	Manufacture of hosiery and other knitted fabrics and garments	8	
23	XXII	333	Manufacture of ammunition, explosives and fire works	6	
24	,,	368	Enamelling, galvanising, plating, polishing and welding of metal products	6	
25	XXIII	284	Manufacture of other wooden products such as utensils, toys, artwares	5	
26	,,	399	Manufacture and repair work of goods not assignable to any other group	5	
27	XXIV	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruit and malts in distillery and brewery	4	
28	,,	230	Cotton ginning, cleaning carding	4	
29	,,	279	Processing and manufacture of textile products	4	
30	,,	302	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry	4	
31	,,	343	Manufacture of structural stone goods, stone dressing and stone crushing	4	
32	XXV	206	Production of butter, ghee	3	
33	,,	270	Manufacture of carpet and all other similar type of textile products	3	
34	,,	335	Manufacture of medicines	3	
35	XXVI	233	Cotton dyeing, bleaching	2	
36	,,	239	Manufacturing of cotton cordage, rope and twine	2	
37	,,	272	Embroidery	2	
38	,,	274	Manufacture of made up textile goods except wearing apparel such as curtains, pillow cases, bedding materials, mattress, textile bags	2	
39	,,	303	All types of binding, stitching, sizing and other allied work connected with binding industry	2	
40	,,	342	Manufacture of lime	2	
41	,,	356	Manufacture of earthen toys and artwares except those covered by code number 355	2	

STATEMENT IV-4—*concld.*

Industries arranged in descending order of number of units in Himachal Pradesh—URBAN—concld.

Sl. No.	Rank order	ISIC Minor Group	Description	No. of units	Percentage to total
1	2	3	4	5	6
42	XXVI	372	Manufacture of small machine tools and machine parts	2	
43	XXVII	237	Printing of cotton textile	2	
44	„	251	Wool cleaning and processing	1	
45	„	262	Spinning of silk other than in mills	1	
46	„	278	Manufacture of umbrellas	1	
47	„	287	Manufacture of boxes and packing cases other than plywood	1	
48	„	289	Manufacture of other wood and allied products	1	
49	„	292	Manufacture of products, such as paper bags, boxes cards, envelopes and moulded pulp goods from paper, paper-board and pulp	1 1	
50	„	336	Manufacture of soap and other washing and cleaning compounds	1	
51		337	Manufacture of turpentine resin	1	
52		339	Manufacture of other chemicals and chemical products not covered above (including inedible oils and fats)	1	
53	„	379	Manufacture of electric machinery and apparatus, appliances not specified above. Repairing and servicing of electrical apparatus, heaters, ovens, etc.	1	
54	„	389	Manufacture of other transport equipment not covered above such as animal drawn and hand drawn vehicles	1	
55	„	391	Manufacture of scientific, medical and surgical instruments and equipment and supplies	1	
			Total 15 to 55	180	9·43
			Total (1 to 55)	1,909	100·00

The Statement IV-3 gives an account of industries arranged in descending order of number of units in rural areas of Himachal Pradesh and Statement IV-4 gives similar account in respect of urban areas. In Himachal Pradesh, as shown in Statement IV-2, 63 industries have been listed in all, 14 of which are not to be found in rural areas (Statement IV-3) and 8 not in urban areas (Statement IV-4). Out of 38,251 total industrial units in Himachal Pradesh 36,342 are in rural areas and 1,909 in urban areas.

It will be observed from the Statement IV-3 that in Himachal Pradesh only 10 industries have more than one percentage to the total units under the 49 industries listed in rural areas. These industries are the same which figure at the top in Pradesh total (Statement IV-2). Except for ISIC Minor Groups 255, 311 and 273 the ranking orders of the seven other industries in the Pradesh as a whole and in the rural areas are also the same. The ISIC Minor Group 200 is at the top in Pradesh total and it is also at the top in the Pradesh rural. The ISIC Minor Group 369 ranks fifth in the Pradesh total and it ranks fifth in the Pradesh rural as well and so on up to S. No. 10 rather 12 in both the Statements IV-2 and IV-3.

In the urban areas of Himachal Pradesh, as revealed in the Statement IV-4, there are 14 industries against 10 in Himachal Pradesh total as well as rural which have percentages of more than one to the total units under the 55 industries listed in the urban areas. Amongst these 14 industries in the urban areas, 9 are those very ISIC Minor Groups viz., 200, 255, 311, 273, 369, 282, 288, 350 and 393, which are at the top in Himachal Pradesh — rural. In other words these ISIC Minor Groups figure amongst the top ranking industries both in rural and urban areas of the Pradesh though with very dissimilar ranking order. In Himachal rural ISIC Minor Group 200 is at the top

and in Himachal urban ISIC Minor Group 273 is at the top. In other words ranking orders of top industries by number of units in rural and urban areas of the Pradesh are different.

Industries (ISIC minor groups) and size of employment under each

In judging the importance of an industry the number of units under it may be significant but the number of persons employed in the industry has a greater significance. The industry irrespective of the units under it, employing the largest number of people should be considered the most important one. The Statements IV-5, IV-6 and IV-7 that follow give an account of the employment figures under all the industries listed in Himachal Pradesh total, rural and urban separately in descending order of the number of persons employed.

STATEMENT IV-5

Industries arranged in descending order of number of persons employed in Himachal Pradesh

Sl. No.	Rank order	ISIC Minor Group	Description	No. of Persons employed	Percentage to total
	2	3	4	5	6
1	I	200	Production of rice, atta, flour	17,333	36·66
2	II	255	Wool weaving in handloom	5,738	12·13
3	III	311	Manufacture of shoes and other leather footwear	5,144	10·88
4	IV	273	Making of textile garments	4,897	10·36
5	V	369	Manufacture of sundry hardwares	3,961	8·38
6	VI	282	Manufacture of structural wooden goods	2,581	5·46
7	VII	288	Manufacture of materials from bamboo, leaves and other allied products	1,967	4·16
8	VIII	350	Manufacture of earthenware and earthen pottery	1,261	2·67
9	IX	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruit and malts in distillery and brewery	1,034	2·19
10	X	393	Manufacture of jewellery, silverware	845	1·79
			Total 1 to 10	44,761	94·68
11	XI	207	Production of edible fats and oils	440	
12	XII	384	Repairing and servicing of motor vehicles	323	
13	XIII	287	Manufacture of boxes and packing cases other than plywood	184	
14	XIV	372	Manufacture of small machine tools and machine parts	165	
15	XV	280	Sawing and planing of wood	143	
16	XVI	365	Manufacture of brass and bell metal products	135	
17	XVII	236	Manufacture of Khadi textile in handlooms	126	
18	XVIII	337	Manufacture of turpentine resin	122	
19	XIX	362	Manufacture of armaments (guns)	101	
20	XX	314	Repair of shoes and other leather footwear	95	
21	XXI	205	Production of bread, biscuits, cake and other bakery products	59	
22	XXII	281	Manufacture of wooden furniture and fixtures	58	
23	XXIII	217	Processing of tea in factories	50	
24	XXIV	335	Manufacture of medicines	49	
25	XXV	340	Manufacture of structural clay products such as bricks, tiles	46	
26	XXVI	392	Assembling and repairing of watches and clocks	37	
27	XXVII	391	Manufacture of scientific, medical and surgical instruments and equipment and supplies	35	
28	XXVIII	388	Repairing of bicycles and tricycles	32	

STATEMENT IV-5—*concld.*

Industries arranged in descending order of number of persons employed in Himachal Pradesh—concld.

Sl. No.	Rank order	ISIC Minor Group	Description	No. of Persons employed	Percentage to total
1	2	3	4	5	6
29	XXIX	214	Production of aerated and mineral water	29	
30	XXX	271	Manufacture of hosiery and other knitted fabrics and garments	28	
31	XXXI	378	Repairing and servicing of radios	22	
32	XXXII	230	Cotton ginning, cleaning, carding	21	
33	XXXIII	201	Production of sugar and syrup from sugar cane in mills	20	
34	XXXIV	251	Wool cleaning and processing	18	
35	XXXV	368	Enamelling, galvanising, plating polishing, and welding of metal products	16	
36	XXXVI	202	Production of indigenous sugar, gur	13	
37	XXXVII	284	Manufacture of other wooden products such as utensils, toys, artwares	12	
38	XXXVIII	270	Manufacture of carpet and all other similar type of textile products	11	
39	XXXIX	262	Spinning of silk other than in mills	10	
40	,,	302	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry	10	
41	,,	303	All types of binding, stitching, sizing and other allied work connected with binding industry	10	
42	XL	206	Production of butter, ghee	9	
43	,,	333	Manufacture of ammunition, explosives and fire works	9	
44	XLI	279	Processing and manufacture of textile products	7	
45	,,	399	Manufacture and repair work of goods not assignable to any other group	7	
46	XLII	239	Manufacturing of cotton cordage, rope and twine	6	
47	,,	289	Manufacture of other wood and allied products	6	
48	,,	336	Manufacture of soap and other washing and cleaning compounds	6	
49	,,	343	Manufacture of structural stone goods, stone dressing and stone crushing	6	
50	XLIII	244	Manufacture of products like rope, cordage	5	
51	XLIV	233	Cotton dyeing, bleaching	4	
52	,,	272	Embroidery	4	
53	XLV	274	Manufacture of made up textile goods except wearing apparel such as curtains, pillow cases, bedding materials, mattress, textile bags	2	
54	,,	278	Manufacture of umbrellas	2	
55	,,	342	Manufacture of lime	2	
56	,,	356	Manufacture of earthen toys and artwares except those covered by code No. 355	2	
57	,,	379	Manufacture of electric machinery and apparatus, appliances not specified above. Repairing and servicing of electrical apparatus, heaters, oven etc.	2	
58	XLVI	211	Production of country liquor	1	
59	,,	237	Printing of cotton textile	1	
60	,,	292	Manufacture of products, such as paper bags, boxes, cards, envelopes and moulded pulp goods from paper, paper board and pulp	1	
61	,,	310	Curing, tanning and finishing of hides and skins and preparation of finished leather	1	
62	,,	339	Manufacture of other chemicals and chemical products not covered above (including inedible oils and fats)	1	
63	,,	389	Manufacture of other transport equipment not covered above such as animal drawn and hand drawn vehicles	1	
			Total 11 to 63	2,505	5·32
			Total (1 to 63)	47,266	

STATEMENT IV-6

Industries arranged in descending order of number of persons employed in Himachal Pradesh—RURAL

Sl. No.	Rank order	ISIC Minor Group	Description	No. of Persons employed	Percentage to total
1	2	3	4	5	6
1	I	200	Production of rice, atta, flour	17,136	40·62
2	II	255	Wool weaving in handloom	5,481	12·99
3	III	311	Manufacture of shoes and other leather footwear	4,617	10·94
4	IV	273	Making of textile garments	4,080	9·67
5	V	369	Manufacture of sundry hardwares	3,355	7·95
6	VI	282	Manufacture of structural goods	2,329	5·52
7	VII	288	Manufacture of materials from bamboo, leaves and other allied products	1,912	4·53
8	VIII	350	Manufacture of earthenware and earthen pottery	1,204	2·85
9	IX	393	Manufacture of jewellery, silverware	665	1·58
			Total 1 to 9	40,779	96·65
10	X	207	Production of edible fats and oils	418	
11	XI	384	Repairing and servicing of motor vehicles	185	
12	XII	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruit and malts in distillery and brewery	150	
13	XIII	280	Sawing and planing of wood	105	
14	XIV	314	Repair of shoes and other leather footwear	95	
15	XV	365	Manufacture of brass and bell metal products	87	
16	XVI	236	Manufacturing of Khadi textile in handloom	58	
17	XVII	217	Processing of tea in factories	50	
18	XVIII	340	Manufacture of structural clay products such as bricks, tiles	46	
19	XIX	281	Manufacture of wooden furniture and fixtures	25	
20	XX	337	Manufacture of turpentine, resin	22	
21	XXI	201	Production of sugar and syrup from sugar cane in mills	20	
22	XXII	251	Wool cleaning and processing	16	
23	XXIII	230	Cotton ginning, cleaning, carding	15	
24	XXIV	202	Production of indigenous sugar, gur	13	
25	XXV	368	Enamelling, galvanising, plating, polishing and welding of metal products	10	
26	XXVI	271	Manufacture of hosiery and other knitted fabrics and garments	7	
27	XXVII	284	Manufacture of other wooden products such as utensils, toys, artwares	7	
28	,,	388	Repairing of bicycles and tricycles	7	
29	,,	262	Spinning of silk other than in mills	6	
30	,,	362	Manufacture of armaments (guns)	6	
31	XXVIII	205	Production of bread, biscuits, cake and other bakery products	5	
32	,,	244	Manufacture of products like rope, cordage	5	
33	,,	289	Manufacture of other wood and allied products	5	
34	,,	378	Repairing and servicing of radios	5	
35	XXIX	206	Production of butter, ghee	4	
36	,,	239	Manufacturing of cotton cordage, rope and twine	4	
37	,,	372	Manufacture of small machine tools and machine parts	4	

STATEMENT IV-6—*concld.*

Industries arranged in descending order of number of persons employed in Himachal Pradesh—RURAL—concld.

Sl. No.	Rank order	ISIC Minor Group	Description	No. of Persons employed	Percentage to total
1	2	3	4	5	6
38	XXX	279	Processing and manufacture of textile products	3	
39	„	335	Manufacture of medicines	3	
40	XXXI	233	Cotton dyeing, bleaching	2	
41	XXXI	270	Manufacture of carpet and all other similar types of textile products	2	
42	„	272	Embroidery	2	
43	„	287	Manufacture of boxes and packing cases other than plywood	2	
44	„	343	Manufacture of structural stone goods, stone dressing and stone crushing	2	
45	„	392	Assembling and repairing of watches and clocks	2	
46	XXXII	211	Production of country liquor	1	
47	„	310	Curing, tanning and finishing of hides and skins and preparation of finished leather	1	
48	„	333	Manufacture of ammunition, explosives and fireworks	1	
49	XXXII	336	Manufacture of soap and other washing and cleaning compounds	1	
			Total 10 to 49	1,413	3·35
			Total (1 to 49)	42,181	100·00

STATEMENT IV-7

Industries arranged in descending order of number of persons employed in Himachal Pradesh—URBAN

Sl. No.	Rank order	ISIC Minor Group	Description	No. of Persons employed	Percentage to total
1	2	3	4	5	6
1	I	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruit and malts in distillery and brewery	884	17·39
2	II	273	Making of textile garments	817	16·07
3	III	369	Manufacture of sundry hardwares	606	11·92
4	IV	311	Manufacture of shoes and other leather footwear	527	10·37
5	V	255	Wool weaving in handloom	257	5·06
6	VI	282	Manufacture of structural wooden goods	252	4·96
7	VII	200	Production of rice, atta, flour	197	3·88
8	VIII	287	Manufacture of boxes and packing cases other than plywood	182	3·58
9	IX	393	Manufacture of jewellery, silverware	180	3·54
10	X	372	Manufacture of small machine tools and machine parts	161	3·17
11	XI	384	Repairing and servicing of motor vehicles	138	2·71
12	XII	337	Manufacture of turpentine and resin	100	1·97
13	XIII	362	Manufacture of armaments (guns)	95	1·87
14	XIV	236	Manufacturing of Khadi textile in handlooms	68	1·34
15	XV	350	Manufacture of earthenware and earthen pottery	57	1·11
16	XVI	288	Manufacture of material from bamboo, leaves and other allied products	55	1·08
17	XVII	205	Production of bread, biscuits, cake and other bakery products	54	1·06
			Total 1 to 17	4,630	91·07

STATEMENT IV-7—*contd.*

Industries arranged in descending order of number of persons employed in Himachal Pradesh—URBAN—contd.

Sl. No.	Rank order	ISIC Minor Group	Description	No. of Persons employed	Percentage to total
1	2	3	4	5	6
18	XVIII	365	Manufacture of brass and bell metal products	48	
19	XIX	335	Manufacture of medicines	46	
20	XX	280	Sawing and planing of wood	38	
21	XXI	391	Manufacture of scientific, medical and surgical instruments and equipment and supplies	35	
22	,,	392	Assembling and repairing of watches and clocks	35	
23	XXII	281	Manufacture of wooden furniture and fixtures	33	
24	XXIII	214	Production of aerated and mineral water	29	
25	XXIV	388	Repairing of bicycles and tricycles	25	
26	XXV	207	Production of edible fats and oils	22	
27	XXVI	271	Manufacture of hosiery and other knitted fabrics and garments	21	
28	XXVII	378	Repairing and servicing of radios	17	
29	XXVIII	302	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry	10	
30	,,	303	All types of binding, stitching, sizing and other allied work connected with binding industry	10	
31	XXIX	270	Manufacture of carpet and all other similar type of textile products	9	
32	XXX	333	Manufacture of ammunition, explosives and fireworks	8	
33	XXXI	399	Manufacture and repair work of goods not assignable to any other group	7	
34	XXXII	230	Cotton ginning, cleaning carding	6	
35	,,	368	Enamelling, galvanising, plating, polishing and welding of metal products	6	
36	XXXIII	206	Production of butter, ghee	5	
37	,,	284	Manufacture of other wooden products such as utensils, toys, artwares	5	
38	,,	336	Manufacture of soap and other washing and cleaning compounds	5	
39	XXXIV	262	Spinning of silk other than in mills	4	
40	,,	279	Processing and manufacture of textile products	4	
41	,,	343	Manufacture of structural stone goods, stone dressing and stone crushing	4	
42	XXXV	233	Cotton dyeing, bleaching	2	
43	,,	239	Manufacturing of cotton cordage, rope and twine	2	
44	,,	251	Wool cleaning and processing	2	
45	,,	272	Embroidery	2	
46	,,	274	Manufacture of made up textile goods except wearing apparel such as curtains, pillow cases, bedding materials, mattress, textile bags	2	
47	,,	278	Manufacture of umbrellas	2	
48	,,	342	Manufacture of lime	2	
49	,,	356	Manufacture of earthen toys and artwares except those covered by code No. 355	2	
50	,,	379	Manufacture of electric machinery and apparatus, appliances not specified above. Repairing and servicing of electrical apparatus, heaters, oven etc.	2	

STATEMENT IV-7—*concld.*

Industries arranged in descending order of number of persons employed in Himachal Pradesh—URBAN—concld.

Sl. No.	Rank order	ISIC Minor Group	Description	No. of persons employed	Percentage to total
1	2	3	4	5	6
51	XXXVI	237	Printing of cotton textile	1	
52	„	289	Manufacture of other wood and allied products	1	
53	„	292	Manufacture of products, such as paper bags, boxes, cards, envelopes and moulded pulp goods from paper, paper board and pulp	1	
54	„	339	Manufacture of other chemicals and chemical products not covered above (including inedible oils and fats)	1	
55	„	389	Manufacture of other transport equipment not covered above such as animal drawn and hand drawn vehicles	1	
			Total 18 to 55	455	8·93
			Total (1 to 55)	5,085	100·00

By the number of units under the various industries in the Pradesh as a whole ten industries figure at the top which have percentage of more than one to the total industrial units, as will have been observed in the Statement IV-2. By the number of persons employed under the various industries, ten industries figure at the top as will be observed from the Statement IV-5. Nine out of the ten industries in both the cases are the same, though with dissimilar ranking order in the case of four of them.

In the case of Himachal Pradesh — rural, there are ten industries at the top by the number of units (Statement IV-3) and by the number of persons employed only nine industries figure at the top (Statement IV-6). The nine industries figuring at the top by the number of persons employed with percentage of more than one to the total persons employed in all the industries have the same ranking order as they have by the number of units.

In Himachal Pradesh urban, in the light of the percentage limit, there are 14 industries at the top by the number of units (Statement IV-4) and 17 industries at the top by the number of persons employed (Statement IV-7). Eleven ISIC Minor Groups in both the cases are the same.

It would have been observed from the Statements IV-5, IV-6 and IV-7 that by the persons employed ISIC Minor Groups 200, 255, 311, 273, 369, 282, 288, 350 and 393 are among the top ranking industries in rural as well as in the urban areas. This very conclusion has been thrown out by the number of units earlier. These nine ISIC Minor Groups deserve to be considered as the most important industries of the Pradesh, and one more ISIC Minor Group 210 — production of distilled spirits, wines, liquor, need to be added here, thereby raising the number of important industries to ten. This addition is done because of large employment in the industry in the Pradesh as a whole and in the urban area particularly. By the number of units, of course, ISIC Minor Group 210 does not stand any comparison.

The distribution of the important industries district-wise will be examined in this Chapter, for rural and urban areas separately. Before this is done, we may examine the number of all industrial units in the districts, for rural and urban areas separately with particular reference to employment to arrive at conclusions about high or low industrial activity. The Statement IV-8 gives this information.

In Himachal Pradesh there are 63 types of industries listed. In the rural areas of the Pradesh there are only 49 types and in the urban areas 55 types are functioning.

District-wise, Mandi has the largest number of different types of industries (44), followed by Mahasu (39), Sirmur (38), Bilaspur (35), Chamba (29) and Kinnaur (18). By the number of types in rural areas Mahasu District is

STATEMENT IV-8

Number of different types of industries by their number of units and number of persons employed in rural and urban areas of the districts

Union Territory/District	Total Rural, Urban	Number of Industries (Types)	Number of units	Number of persons employed	Percentage to Pradesh total		Size of employment per 100 units
					Units	Persons employed	
1	2	3	4	5	6	7	8
HIMACHAL PRADESH	**Total**	**63**	**38,251**	**47,266**	**100·00**	**100·00**	**124**
	Rural	**49**	**36,342**	**42,181**	**95·01**	**89·25**	**116**
	Urban	**55**	**1,909**	**5,085**	**4·99**	**10·75**	**266**
Chamba	Total	29	9,969	8,364	18·22	17·69	120
	Rural	21	6,838	8,004	17·88	16·93	117
	Urban	20	131	360	0·34	0·76	274
Mandi	Total	44	11,789	13,644	30·82	28·87	116
	Rural	27	10,951	12,241	28·63	25·90	112
	Urban	39	838	1,403	2·19	2·97	167
Bilaspur	Total	35	3,009	3,731	7·87	7·89	124
	Rural	25	2,737	3,337	7·16	7·06	122
	Urban	27	272	394	0·71	0·83	145
Mahasu	Total	39	10,261	13,447	26·83	28·46	131
	Rural	30	9,916	11,554	25·93	24·46	117
	Urban	29	345	1,893	0·90	4·00	549
Sirmur	Total	38	4,227	5,575	11·04	11·79	132
	Rural	21	3,904	4,540	10·19	9·60	116
	Urban	33	323	1,035	0·85	2·19	320
Kinnaur	Rural	18	1,996	2,505	5·22	5·30	126

Note:—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of figures of total, rural and urban areas separately per thousand.

at the top (30), followed by Mandi (27), Bilaspur (25), Chamba (21), Sirmur (21) and Kinnaur (18). By the number of types in urban areas Mandi District is again at the top (39), followed by Sirmur (33), Mahasu (29), Bilaspur (27) and Chamba (20). The high or low number in terms of types of industries in the districts is, of course, not to be taken as an index for high or low state of industrialization.

There are 38,251 industrial units in the Pradesh under the 63 different types of industries, of which 36,342 units under 49 types of industries are in the rural areas and 1,909 units in the urban areas under 55 different types of industries. Number of employees in these industrial units in the Pradesh is 47,266 of which 42,181 are in the rural and 5,085 in the urban areas. Figuratively speaking it means that every 100 units in the Pradesh as a whole and in its rural areas offer employment to 124 and 116 persons respectively. This, in other words, signifies that every industrial unit in the Pradesh is more or less—a one man show, which should be taken as a sign of very low industrial activity. In the districts also—in total and in rural areas, every industrial unit is more or less a one man show.

Considering the figure for the Pradesh—urban, the industrial activity there too is not comparatively very high as it should be. There, every 100 units offer employment to 266 persons, more or less 3 persons per unit. The employment ratios are, however, a little higher for every 100 industrial units in the urban areas of Mahasu (549), Sirmur (320) and Chamba (274), as compared with the Pradesh urban ratio. On the whole the industrial activity in the Pradesh in terms of employment is at the lowest rung.

Distribution of important industries

In judging the importance of an industry the number of units under it may be significant, but the number of persons employed in the industry has a greater significance. By size of employment there are ten important industries in the Pradesh, which include nine industries which are important by the number of

units as well as by size of employment. These important industries are ISIC Minor Groups 200, 255, 311, 273, 369, 282, 288, 350, 210 and 393. The distribution of units and persons employed under each of them in rural and urban areas of the districts may be seen in the following ten Statements IV-9.1—10.

STATEMENT IV-9.1

ISIC Minor Group 200—production of rice, atta, flour etc.—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1	2	3	4
HIMACHAL PRADESH	**Total**	**16,874**	**17,333**
	Rural	**16,722**	**17,136**
	Urban	**152**	**197**
Chamba . . .	Total	2,792	2,807
	Rural	2,788	2,802
	Urban	4	5
Mandi . . .	Total	5,915	6,147
	Rural	5,831	6,042
	Urban	84	105
Bilaspur . . .	Total	1,025	1,160
	Rural	986	1,110
	Urban	39	50
Mahasu . . .	Total	4,843	4,883
	Rural	4,833	4,869
	Urban	10	14
Sirmur . . .	Total	1,476	1,503
	Rural	1,461	1,480
	Urban	15	23
Kinnaur . . .	Rural	823	833

By the number of units as well as by number of persons employed ISIC Minor Group 200 ranks as the industry of first order in the Pradesh rural, where its 16,722 units offer employment to 17,136 persons. It may, however, be noted that production of rice, atta flour may not be the primary occupation of all the persons employed. In Himachal Pradesh urban, amongst the important industries there, ISIC Minor Group 200 ranks fourth by number of units (152) and seventh by number of persons employed (197).

In the districts, Mandi has the largest number of units under the industry as also the persons employed in them, both in rural and urban areas.

STATEMENT IV-9.2

ISIC Minor Group 255—wool weaving in handloom—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1	2	3	4
HIMACHAL PRADESH	**Total**	**4,106**	**5,738**
	Rural	**4,067**	**5,481**
	Urban	**39**	**257**
Chamba . . .	Total	1,419	2,071
	Rural	1,410	1,922
	Urban	9	149
Mandi . . .	Total	834	1,093
	Rural	818	1,075
	Urban	16	18
Bilaspur . . .	Total	109	166
	Rural	108	162
	Urban	1	4
Mahasu . . .	Total	820	1,107
	Rural	810	1,025
	Urban	10	82
Sirmur . . .	Total	175	196
	Rural	172	192
	Urban	3	4
Kinnaur . . .	Rural	749	1,105

The industry of wool weaving in handlooms — ISIC Minor Group 255 ranks second amongst the industries in Himachal rural, by number of units (4,067) as well as by number of persons employed (5,481). In Himachal urban the rank of the industry is eighth by number of units (39) and fifth by number of persons employed (257).

As regards distribution of units and persons employed in the rural areas of the districts, in general, wherever there is large production of wool, the basic material for the industry of wool weaving in handlooms, the number of units and persons employed in the industry is equally large there. Again the colder the climate anywhere the greater the need for woollen garments, and correspondingly larger the number of woollen handloom units there.

Production of wool by rearing of sheep is comparatively high in the districts of Chamba (rural) and Kinnaur. The rigours of cold climate also have greater intensity in these two districts. Rearing of sheep is also done in the colder

reaches of Mandi and Mahasu districts though not so extensively as in the districts of Chamba and Kinnaur. Chamba has the largest number of persons employed (1,922) as well as number of units (1,410) in ISIC Minor Group 255. Kinnaur District has the second largest number of persons employed (1,105) in 749 units of this industry. Mandi and Mahasu Districts rank third and fourth by number of persons employed in the industry, though by number of units they excel Kinnaur. But the difference in their number of units is not large, if we take into consideration the population of Mandi and Mahasu districts which is overwhelmingly more.

Wool weaving in handlooms is done in the urban areas of the districts, and Chamba town has the largest number of persons engaged in this industry as compared with the urban areas of other districts. This is partly because of *Iravati Industries*, a registered factory, located in Chamba town, having the employment potential of 50 persons.

STATEMENT IV-9.3

ISIC...Minor Group 311—manufacture of shoes and other leather footwear—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1	2	3	4
HIMACHAL PRADESH	**Total**	**4,003**	**5,144**
	Rural	**3,634**	**4,617**
	Urban	**369**	**527**
Chamba . . .	Total	668	946
	Rural	640	895
	Urban	28	51
Mandi . . .	Total	1,249	1,487
	Rural	1,075	1,250
	Urban	174	237
Bilaspur . . .	Total	562	696
	Rural	535	662
	Urban	27	34
Mahasu . . .	Total	839	1,120
	Rural	757	1,002
	Urban	82	118
Sirmur . . .	Total	668	874
	Rural	610	787
	Urban	58	87
Kinnaur . . .	Rural	17	21

ISIC Minor Group 311 — manufacture of shoes and other leather footwear claims the third rank amongst the industries both by number of units (3,634) and persons employed (4,617) in Himachal Pradesh rural. In Himachal Pradesh urban the rank is second by number of units (369) and fourth by number of persons employed (527).

In the rural areas of the districts, Mandi has the largest number of units and persons engaged in the industry followed by Mahasu, Chamba, Sirmur, Bilaspur and Kinnaur districts ranking second, third, fourth, fifth and sixth respectively. As regards distribution of units and persons employed in the urban areas of the districts, Mandi again has the largest number of them, followed by Mahasu, Sirmur Chamba and Bilaspur.

STATEMENT IV-9.4

ISIC Minor Group 273—making of textile garments—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1	2	3	4
HIMACHAL PRADESH	**Total**	**4,118**	**4,897**
	Rural	**3,569**	**4,080**
	Urban	**549**	**817**
Chamba . . .	Total	640	720
	Rural	600	651
	Urban	40	69
Mandi . . .	Total	944	1,166
	Rural	703	814
	Urban	241	352
Bilaspur . . .	Total	373	441
	Rural	305	346
	Urban	68	95
Mahasu . . .	Total	1,399	1,683
	Rural	1,291	1,498
	Urban	108	185
Sirmur . . .	Total	667	759
	Rural	575	643
	Urban	92	116
Kinnaur . . .	Rural	95	128

ISIC Minor Group 273 — making of textile garments ranks as industry of the fourth order in the rural areas of Himachal both by number of units (3,569) and the number of persons employed (4,080).

In rural areas of the districts, Mahasu has the largest number of units as well as the largest number of persons employed. In urban areas of the districts, the towns in Mandi District have the largest number of them.

STATEMENT IV-9.5

ISIC Minor Group 369—manufacture of sundry hardwares—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1	2	3	4
HIMACHAL PRADESH	**Total**	**2,829**	**3,961**
	Rural	**2,725**	**3,355**
	Urban	**104**	**606**
Chamba . . .	Total	342	395
	Rural	335	384
	Urban	7	11
Mandi . . .	Total	895	1,072
	Rural	845	997
	Urban	50	75
Bilaspur . . .	Total	449	566
	Rural	438	554
	Urban	11	12
Mahasu . . .	Total	667	849
	Rural	652	828
	Urban	15	21
Sirmur . . .	Total	364	914
	Rural	343	427
	Urban	21	487
Kinnaur . . .	Rural	112	165

By number of units (2,725) as well as by number of persons employed (3,355) ISIC Minor Group 369—manufacture of sundry hardwares ranks fifth amongst the industries in the rural areas of the Pradesh. The ranking in the Pradesh urban is sixth by number of units (104) and third by number of persons employed (606). The largest number of units of the industry amongst the districts are located in Mandi in its rural as well as in its urban area. As regards persons employed, it will be observed from the Statement IV-9.5 that Mandi rural has the largest number of persons employed in the industry, but the towns there inspite of the largest number of units stand second by the size of employment. It is Sirmur urban which has the largest number of persons (487) in the industry as compared with all the other urban areas of the various districts. This is due to the *Nahan Foundry Ltd.*, a registered factory located in Nahan town of Sirmur District employing as many as 465 persons. The main products of the foundry are cane-crushers and other items of production are iron pans, flour mills, centrifugal pumps and agricultural implements, major markets for which are Punjab, Uttar Pradesh, Delhi and some parts of Himachal Pradesh.

The next important industry in the Pradesh by number of persons employed is ISIC Minor Group 282—manufacture of structural wooden goods. By number of persons employed it ranks sixth amongst the industries in the Pradesh rural as also in the Pradesh urban. By the number of units the rank is sixth in the Pradesh rural but in the Pradesh urban this rank is third. The distribution of units and employment in rural and urban area of the districts is shown in the Statement IV-9.6.

STATEMENT IV-9.6

ISIC Minor Group 282—manufacture of structural wooden goods—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1	2	3	4
HIMACHAL PRADESH	**Total**	**2,197**	**2,581**
	Rural	**2,008**	**2,329**
	Urban	**189**	**252**
Chamba . . .	Total	257	292
	Rural	252	283
	Urban	5	9
Mandi . . .	Total	617	695
	Rural	544	605
	Urban	73	90
Bilaspur . . .	Total	137	180
	Rural	101	133
	Urban	36	47
Mahasu . . .	Total	756	895
	Rural	726	844
	Urban	30	51
Sirmur . . .	Total	309	371
	Rural	264	316
	Urban	45	55
Kinnaur . . .	Rural	121	148

It will be observed from the Statement IV-9.6 that the largest number of units, as well as the largest number of persons employed in ISIC Minor Group 282 are in the rural areas of the Mahasu District. In urban areas, the employment as well as number of units are more in Mandi District, which has the largest urban population amongst the districts, followed by Sirmur District, which has the next largest urban population.

The ISIC Minor Group 288 manufacture of material from bamboo, leaves and other allied products is the next important industry after ISIC Minor Group 282 by the size of employment in the Pradesh. By size of employment its rank is seventh in the Pradesh rural and sixteenth in the Pradesh urban, and by number of units the rank is seventh in both the cases. The rural and urban distribution of number of units and persons employed may be seen in the Statement IV-9.7.

STATEMENT IV-9.7

ISIC Minor Group 288—manufacture of material from bamboo, leaves and other allied products—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1	2	3	4
HIMACHAL PRADESH	**Total**	**1,518**	**1,967**
	Rural	**1,473**	**1,912**
	Urban	**45**	**55**
Chamba . . .	Rural	266	343
Mandi . . .	Total	451	530
	Rural	420	495
	Urban	31	35
Bilaspur . . .	Total	66	85
	Rural	57	74
	Urban	9	11
Mahasu . . .	Rural	441	607
Sirmur . . .	Total	292	400
	Rural	287	391
	Urban	5	9
Kinnaur . . .	Rural	2	2

The products of ISIC Minor Group 288 in the Pradesh, mostly baskets and *kilta* are more in demand and use in the rural areas by the farmers. The non-existence of any units of the industry in the urban areas of Chamba and Mahasu Districts and very low incidence of the units in the urban areas of the other three districts as shown in the Statement IV-9.7 above, goes to prove that the importance of the industry depends upon the use of the products in the rural areas of the districts.

The Statement IV-9.8 gives information about the distribution of units and persons employed in ISIC Minor Group 350 — manufacture of earthenwares and earthen pottery.

STATEMENT—IV-9.8

ISIC Minor Group 350—manufacture of earthenwares and earthen pottery—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1	2	3	4
HIMACHAL PRADESH	**Total**	**880**	**1,261**
	Rural	**843**	**1,204**
	Urban	**37**	**57**
Chamba . . .	Rural	193	264
Mandi . . .	Total	384	535
	Rural	358	503
	Urban	26	32
Bilaspur . . .	Total	100	168
	Rural	97	162
	Urban	3	6
Mahasu . . .	Rural	104	146
Sirmur . . .	Total	69	102
	Rural	61	83
	Urban	8	19
Kinnaur . . .	Rural	30	46

By number of persons employed (1,204) ISIC Minor Group 350 ranks fifth and by number or units (843) eighth in Himachal rural. In Himachal urban the rank by number of units (37) is ninth and fifteenth by number of persons employed (57). Primarily it is an industry of the village potters, some of whom have established their work units in urban areas also.

In the districts, Mandi has the largest number of units as well as persons employed in the industry both in rural and urban areas.

By size of employment ISIC Minor Group 210 — production of distilled spirits, wines, liquors is also an important industry of the Pradesh, though by the number of units it stands no comparison. In Himachal urban, the industry stands at the top by the size of employment. 1,034 persons are employed in this industry 884 in four units in the urban areas of two districts and 150 in one unit in the rural area of Mahasu District as shown in the Statement IV-9.9. Out of the four urban units one is located in Nahan town of Sirmur District and the other three in Solan town of Mahasu District The three units in Solan are in fact work units of one registered factory styled as *Dyer Meakin Breweries Ltd., Solan Brewery,* housed in different Census Houses where different work operations of the brewery are carried out.

STATEMENT IV-9.9

ISIC Minor Group 210—production of distilled spirits, wines, liquors etc.—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1		3	4
HIMACHAL PRADESH	**Total**	**5**	**1,084**
	Rural	**1**	**150**
	Urban	**4**	**884**
Chamba . . .	Total	..	..
	Rural	..	..
	Urban	..	..
Mandi . . .	Total	..	..
	Rural	..	..
	Urban	..	..
Bilaspur . . .	Total	..	..
	Rural	..	..
	Urban	..	..
Mahasu . . .	Total	4	1,330
	Rural	1	150
	Urban	3	880
Sirmur . . .	Total	1	4
	Rural	..	..
	Urban	1	4
Kinnaur . . .	Rural	..	..

Manufacture of jewellery, silverware—ISIC Minor Group 393 is also one of the important industries in the Pradesh. By number of units it ranks ninth in Himachal rural and fifth in Himachal urban and by number of persons employed the ranking is ninth in both the cases. The urban and rural distribution of persons employed and units of the industry in the districts is given in the Statement IV-9.10.

STATEMENT IV-9.10

ISIC Minor Group 393—manufacture of jewellery, silverware—distribution of units and persons employed in rural and urban areas of the districts

Union Territory/ District	Total Rural Urban	No. of units	No. of persons employed
1	2	3	4
HIMACHAL PRADESH	**Total**	**678**	**845**
	Rural	**552**	**665**
	Urban	**126**	**180**
Chamba . . .	Total	118	153
	Rural	105	130
	Urban	13	23
Mandi . . .	Total	171	198
	Rural	136	149
	Urban	35	49
Bilaspur . . .	Total	73	101
	Rural	42	59
	Urban	31	42
Mahasu . . .	Total	212	267
	Rural	187	229
	Urban	25	38
Sirmur . . .	Total	88	104
	Rural	66	76
	Urban	22	28
Kinnaur . . .	Rural	16	22

Ten important industries of the Pradesh have been reviewed in the preceding pages. These industries are important because they have the larger number of units or have the larger number of persons engaged in them as compared to other industries. Then there are certain other industries in which the number of

STATEMENT IV-10

Industries having high averages of employment per unit (7 to 207 persons per unit)

Sl. No.	ISIC Minor Group	Description	Total units	Total No. of persons engaged	Employment per unit
1	2	3	4	5	6
1	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruit and malts in distillery and brewery.	5	1,034	207
2	287	Manufacture of boxes and packing cases other than plywood . . .	2	184	92
3	337	Manufacture of turpentine, resin	2	122	61
4	372	Manufacture of small machine tools and machine parts	3	165	55
5	391	Manufacture of scientific, medical and surgical instruments and equipment and supplies.	1	35	35
6	340	Manufacture of structural clay products such as bricks, tiles . . .	2	46	23
7	201	Production of sugar and syrup from sugar cane in mills	1	20	20
8	384	Repairing and servicing of motor vehicles	16	323	20
9	217	Processing of tea in factories	3	50	17
10	335	Manufacture of medicines	6	49	8
11	362	Manufacture of armaments (guns)	14	101	7

units is very small but the average employment per unit is comparatively very high, exceeding the average employment per unit of nine of the ten important industries already reviewed. Then again most of these industries have work units registered under the Indian Factories Act, 1948, which gives them a glow of important industries. These industries are listed in the Statement IV-10.

It will be observed from the Statement IV-10 that the highest average employment per unit (207) is in ISIC Minor Group 210 which has five units in the Pradesh details about the location of which and employment have already been provided in the Statement IV-9.9. There are two factories registered under this industry under the Indian Factories Act, 1948, viz. (1) *Dyer Meakin Breweries Ltd., Solan Brewery,* Solan and (2) *Kasauli Distillery,* in Tehsil Solan of Mahasu District.

The ISIC Minor Group 287 — manufacture of boxes and packing cases has the average employment of 92 persons per unit. One unit of the industry is located in Solan town of Mahasu District, employing 182 persons, which prepares boxes for the Solan Brewery. The other unit is located in the rural area of Kumharsain Sub-Tehsil in Mahasu District employing two persons only.

The ISIC Minor Group 337 — manufacture of turpentine resin has two units, both registered factories under the Indian Factories Act, 1948, styled as (1) *Himachal Rosin and Turpentine Factory,* Nahan and (2) *Krishna Rosin and Turpentine Works,* Seoni. The former is located in urban area of Sirmur District employing 100 persons and the other in rural area of Mahasu District in Seoni Sub-Tehsil, employing 22 persons.

The ISIC Minor Group 372 — manufacture of small machine tools and machine parts has three units. All the three units are located in Mahasu District, two in Solan town employing 161 persons and the third in rural area of Kasumpti Tehsil employing 4 persons.

There is only one unit under ISIC Minor Group 391 — manufacture of scientific, medical and surgical instruments, located in Solan Town of Mahasu District employing 35 persons.

Under Minor Group 340 — manufacture of structural clay products such as bricks, tiles there are two units located in rural areas of Rainka and Paonta Tehsils of Sirmur District employing 46 persons.

There is one unit under ISIC Minor Group 201 — production of sugar and syrup from sugar cane in mills said to be employing 20 persons. This unit is a registered factory known as the *Jesico Co-operative Sugar Factory,* Paonta located in rural area of Sirmur District.

The ISIC Minor Group 384 — repairing and servicing of motor vehicles has 16 units employing in total 323 persons, giving an average of 20 persons per unit. Six of these units are *Himachal Government Transport Workshops,* five of which located at Dhalli, Taradevi (Mahasu District — rural), Mandi, (Mandi District — urban), Nahan (Sirmur District — urban) and Bilaspur (Bilaspur District—urban) are registered under the Indian Factories Act, 1948. The sixth *Himachal Pradesh Government Transport Workshop* is located at Banikhet in Chamba District — rural. There is one more registered unit of the industry in Mandi town known as *Mandi Kulu Road Transport Corporation,* Mandi.

The ISIC Minor Group 271 — processing of tea in factories has three units with total employment of 50 persons. These units are located in tea producing rural area of Jogindarnagar Tehsil in Mandi District. One of the units is a registered factory under the Indian Factories Act, 1948, known as *Chauntra and Dhelu Tea Estate,* Chauntra (Mandi).

The ISIC Minor Group 335 — manufacture of medicines, has six units with a total employment of 49 persons. One of the units is a registered factory, a Government concern, styled as *Himachal Pradesh Government Ayurvedic Pharmacy,* Jogindarnagar, Mandi District.

The ISIC Minor Group 362 — manufacture of armaments (guns) including repairs have 14 units three of which are registered factories located in Mandi town of Mandi District.

These registered factories are—

1. *Hesbee and Co., Gun Manufacturers,* Mandi.
2. *Vir Singh & Co., Gun Manufacturers,* Mandi.
3. *The Cousins, Gun Manufacturers,* Mandi.

Location of important factories—natural resources—raw material available

There are four registered factories which have been established with an eye on the availability of raw material within the Pradesh. Two of these factories deal in manufacture of turpentine and resin — ISIC Minor Group 337, third one in the production of sugar— ISIC Minor Group 210 and the fourth in the processing of tea — ISIC Minor Group 217. Mention of these factories has been made earlier. These factories are —

1. *Himachal Rosin and Turpentine Factory,* Nahan.
2. *Krishna Rosin and Turpentine Works,* Palair, Seoni.
3. *The Jesico Co-operative Sugar Factory,* Paonta.
4. *Chauntra and Dhelu Tea Estate,* Chauntra, Mandi.

Rosin is available in sufficient quantity in the Pradesh forests to feed the two factories manufacturing turpentine and rosin. The cultivation of sugar-cane in Paonta Tehsil of Sirmur District on a wider scale than in the other districts has enabled the establishment of the sugar factory in Tehsil Paonta. The tea producing area of Jogindarnagar Tehsil in Mandi District produces raw material for the tea processing factory in Chauntra.

Proportion of factories and workshops where power is used to those where power is not used

The powers used in mechanized industries are classified into four different types viz., (1) electricity, (2) liquid fuel, (3) coal, wood and bagasse and (4) other power — like water power and animal power. Out of the total industrial units of 38,251 in the Pradesh 17,359 units use power of one kind or the other and 20,892 use no power. Districtwise distribution of industrial units using power is given in the Statement IV-11.

It will be observed from the Statement that in the Pradesh as a whole number of industrial units using power is less than those not using any power. The same is the case in five of the six districts of Chamba, Bilaspur, Mahasu, Sirmur and Kinnaur. In Mandi District the position is otherwise.

STATEMENT IV-11

Use of power in industrial units

Union Territory/District	Industrial Units worked by	
	Power	No power
1	2	3
HIMACHAL PRADESH	17,359	20,892
Chamba	2,957	4,012
Mandi	6,083	5,706
Bilaspur	1,063	1,946
Mahasu	4,902	5,359
Sirmur	1,531	2,696
Kinnaur	823	1,173

The most important power used in the industry

The relative importance of different types of power in the industrial use may be gauged from the Statement IV-12 showing distribution of industrial units by power used.

The Statement IV-12 reveals that there is only one industrial unit in Sirmur District of the Pradesh that uses coal, wood and bagasse to run the machinery. Liquid fuel is used by 35 units in the Pradesh out of which the largest number of units are in Mandi District, followed closely by Mahasu and Bilaspur Districts. There is only one unit in Chamba District using this power and none in Kinnaur District. Electricity is used by 107 industrial units in the Pradesh, and in this case also the largest number of units are in Mandi District and no industrial unit uses this power in Kinnaur District. It is the 'Other power', i.e., water power and in a very few cases bullock power (used in *kohlus* or sugar-cane crusher for *gur* making) that is used by the largest number of industrial units — 17,216 in the Pradesh. The water power is mostly used in the running of flour-mills (*gharats*) and in a few cases to run *kohlus*, cotton spinning and cleaning machines.

Relationship between industry and power

The Statement IV-13 gives information about the types of industries that are using the different types of power.

STATEMENT IV-12

Distribution of industrial units by different types of Power used

Union Territory/District	Total No. of industrial units	Percentage of industrial units using different types of power									
		Electricity		Liquid fuel		Coal, wood and bagasse		Other power		No power used	
		No. of units	Percentage	No. of units	Percentage	No. of units	Percentage	No. of units	Percentage	No. of units	Percentage
1	2	3	4	5	6	7	8	9	10	11	12
HIMACHAL PRADESH	**38,251**	**107**	**0·28**	**35**	**0·09**	**1**		**17,216**	**45·01**	**20,892**	**54·62**
Chamba	6,969	12	0·17	1	0·01	..	..	2,944	42·25	4,012	57·57
Mandi	11,789	41	0.35	11	0·09	..	..	6,031	51·16	5,706	48·40
Bilaspur	3,009	9	0·30	9	0·30	..	..	1,045	34·73	1,946	64·67
Mahasu	10,261	31	0·30	10	0·10	..	..	4,861	47·37	5,359	52·23
Sirmur	4,227	14	0·33	4	0·10	1	0·02	1,512	35·77	2,696	63·78
Kinnaur	1,996	..	..	..	..	..	..	823	41·23	1,173	58·77

N=Negligible.

STATEMENT IV-13

Types of industries and their units run by power

Sl. No.	ISIC Minor Group	Description	Total No. of units using power	Units under each type of power			
				Electricity	Liquid fuel	Coal, wood and bagasse	Other power
1	2	3	4	5	6	7	8
1	200	Production of rice, atta, flour	16,873	46	20	..	16,807
2	201	Production of sugar and syrup from sugar cane in mills	1	1	..	..	..
3	202	Production of indigenous sugar, gur	4	..	2	..	2
4	207	Production of edible fats and oils	399	6	5	..	388
5	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruit and malts in distillery and brewery.	4	4	..	..	..
6	214	Production of aerated and mineral water	1	1	..	..	..
7	217	Processing of tea in factories	1	1	..	..	..
8	230	Cotton ginning, cleaning, carding	8	1	1	..	6
9	251	Wool cleaning and processing	13	1	..	..	12
10	262	Spinning of silk other than in mills	1	..	..	1	..
11	270	Manufacture of carpet and all other similar type of textile products	1	1	..	..	..
12	271	Manufacture of hosiery and other knitted fabrics and garments	2	2	..	..	..
13	280	Sawing and planing of wood	18	10	7	..	1
14	281	Manufacturing of wood furniture and fixtures	1	1	..	..	..
15	284	Manufacture of other wooden products such as utensils, toys art-wares.	1	1	..	..	..
16	287	Manufacture of boxes and packing cases other than ply-wood	1	1	..	..	..
17	302	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry	3	3	..	..	..
18	303	All types of binding, stitching, sizing and other allied work connected with binding industry.	1	1	..	..	..
19	335	Manufacture of medicines	1	1	..	..	..
20	337	Manufacture of turpentine, resin	2	2	..	..	..
21	362	Manufacture of armaments (guns)	3	3	..	..	..
22	365	Manufacture of brass and bell metal products	4	4	..	..	..
23	369	Manufacture of sundry hardwares	3	3	..	..	..
24	372	Manufacture of small machine tools and machine parts	3	3	..	..	..
25	384	Repairing and servicing of motor vehicles	9	9	..	..	..
26	391	Manufacture of scientific, medical and surgical instruments and equipment supplies.	1	1	..	..	..
		Total	17,359	107	35	1	17,216

Industries having the largest number of units using power

Out of the 63 different types of industries in Himachal Pradesh 26 use power in some of their industrial units. The largest number of industrial units (16,873), using power are in ISIC Minor Group 200 — production of rice, *atta*, flour, out of which 46 use electricity, 20 liquid fuel and 16,807 'other power'. Next in descending order is ISIC Minor Group 207 — production of edible fats and oil where 399 units use power — 6 electricity, 5 liquid fuel and 388 other power. ISIC Minor Group 280 — sawing and planing of wood and ISIC Minor Group 251 — wool cleaning and processing are the two other industries whose number of units using power run into two digits.

Power used by the largest number of industries

There are 26 industries which use power of one type or the other and out of these 24 use electricity as one of the powers. The largest number of units (46) using electricity are in ISIC Minor Group 200 — production of rice, *atta*, flour followed by ISIC Minor Group 280 —sawing and planing of wood — 10 units, ISIC Minor Group 384 — repairing and servicing of motor vehicles — 9 units and ISIC Minor Group 207 — production of edible fats and oils — 6 units. The number of units in the other types of industries using electricity ranges between 1 and 4.

The registered factories reviewed earlier under the following ISIC Minor Groups use electricity to run their machineries—

1. ISIC Minor Group 201 — production of sugar and syrup from sugarcane in mills — 1 registered factory.
2. ISIC Minor Group 210 — production of distilled spirits, wines, liquor etc. — 2 registered factories.
3. ISIC Minor Group 217 — processing of tea in factories — 1 registered factory.
4. ISIC Minor Group 335 — manufacture of medicines — 1 registered factory.
5. ISIC Minor Group 337 — manufacture of turpentine, resin — 2 registered factories.
6. ISIC Minor Group 362 — manufacture of armaments (guns) — 3 registered factories.
7. ISIC Minor Group 369 — manufacture of sundry hardware — 1 registered factory.
8. ISIC Minor Group 384 — repairing and servicing of motor vehicles — 6 registered factories.

The 'other power' is used in six industries and liquid fuel in five industries. Five of the ISIC Minor Groups using these two powers are the same in each case. These Minor Groups are 200, 202, 207, 230 and 280. In the case of both the powers the largest number of units making their use are in ISIC Minor Group 200 — production of rice, *atta*, flour.

The use of the fourth type of power, coal, wood and bagasse is insignificant in the Pradesh. Only one unit is using this fuel to run the machinery.

It stands concluded from the Statement IV-13 that though the largest number of industries are making use of 'electricity' but the largest number of industrial units using power of one kind or the other run their machineries with 'other power', i.e., mostly with water power.

Relationship between power used and size of employment

While comparing the number of industrial units and the number of persons employed in them it has been stated in this Chapter earlier that the industrial activity in the Pradesh is at its lowest rung. On an average every industrial unit appears to be a one man show. Size of employment in an industrial unit indicates its growth and the use of power its capacity of production. The Statement IV-14 will show the number of units according to the different size groups of persons employed for power and no power.

The Statement IV-14 reveals that out of 38,251 industrial units in the Pradesh more than half i.e., 20,892 units are with no power and 17,359 units use power. In 17,359 units using power there are as many as 16,974 units which employ one person per unit and the overwhelming majority in them is that of water mills (*gharats*). In the remaining 385 industrial units (17,359—16,974=385). 325

STATEMENT IV-14

Number and proportion of industrial units using power and no power classified by size of employment

Size group of employment	Total No. of industrial units	Percentage to total	No. of industrial units with power	Percentage to total	No. of industrial units with no power	Percentage to total
1	2	3	4	5	6	7
1 Person . . .	34,083	89·10	16,974	97·78	17,109	81·89
2—5 Persons . . .	4,011	10·49	325	1·87	3,686	17·64
6—9 Persons . . .	99	0·26	28	0·16	71	0·34
10—19 Persons . . .	27	0·07	8	0·05	19	0·09
20—49 Persons . . .	20	0·05	14	0·08	6	0·03
59—90 Persons . . .	3	0·01	2	0·01	1	0·01
100 Persons & above .	8	0·02	8	0·05	..	..
Total .	38,251	100·00	17,359	100·00	20,892	100·00

units have employment size of 2-5 persons, 28 units have employment size of 6-9 persons, 8 units have employment size of 10-19 persons, 14 units have employment size of 20-49 persons and 2 units have employment size of 50-99 persons. There are only 8 industrial units using power which employ more than 100 persons and may be termed as units of large scale industries. These large scale industrial units are located in the districts of Mahasu and Sirmur as will be observed from the Table E-III. In Mahasu five of the units are in urban area and one in rural area. In Sirmur both the units are in urban area. All these 8 industrial units use electric power. There are no large scale industrial units without power.

The Statement IV-15 gives distribution of industrial units by kind of power and no power used classified by size of employment for rural and urban areas separately.

STATEMENT IV-15

Distribution of industrial units by kind of power used according to size of employment in rural and urban areas

Size of mployment	Electricity		Liquid fuel		Coal, wood & bagasse		Other power		No power	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1		3	4	5	6	7	8	9	10	11
1 Person		8	16	1	..	..	16,800	131	15,860	1,249
2—5 Persons	21	22	10	2	..	..	251	..	3,258	428
6—9 Persons	2	5	5	..	1	..	15	19	61	10
10—19 Persons	2	5	1	..	..	..	..	..	11	8
20—49 Persons	7	7	..	..	..	..	..	..	1	5
50—99 Persons	1	1	..	..	..	..	..	..	..	1
100 Persons and above . .	1	7	..	..	..	..	..	..	..	..
Total .	52	55	32	3	1	..	17,066	150	19,191	1,701
	107		35		1		17,216		20,892	
	17.359									
	38,251									

It will be seen from the Statement IV-15 that there is not much difference in the total numbers of industrial units in urban and rural areas of the Pradesh using electricity. This shows preference for use of electric power in the industrial units in rural areas also, if electricity is available. Even small scale industrial units have gone in for the use of electricity in rural areas wherever available. It will also be seen from the Statement that all large scale industrial units employing 100 persons and above, are using electricity both in rural and urban areas. The number of industrial units with employment sizes of 20-49 and 50-99 is 16 under electricity, none under other kinds of power and 7 under 'no power'. All this shows that in industrial units with higher employment potentials electricity as power to run the machinery is in greater demand than any other power. As regards other kinds of power, the sizes of employment and industrial units under liquid fuel and 'other power' are indicative of small scale industrial units and enterprises. The one single unit under coal, wood and bagasse needs no comment.

Source of power

Out of 38,251 industrial units in the Pradesh 17,359 units make use of power of one kind or the other, i.e., 107 units use electricity, 35 liquid fuel, 1 coal, wood and bagasse and 17,216 'other power'.

The main sources of electric supply in the Pradesh are as under—

District	*Sources of electric supply*
Chamba	The Punjab State Electricity Board, Jogindarnagar
Mandi	do
Bilaspur	do
Mahasu	The Punjab State Electricity Board, Bhakra
Sirmur	do

Liquid fuel and coal come from outside the Pradesh. As regards 'other power' the small rivulets, streams and *khads* within the Pradesh supply the same in the shape of free water power to run the water-mills (*gharats*) forming the overwhelming majority of industrial units.

Analysis of Industries by order of number of persons employed classified by type of power used

The comparative importance of industries has been examined earlier in this Chapter according to the number of persons employed in each type of the industries, as also according to the number of units functioning under each. It will be of interest to examine further the number of persons employed and units according to different kinds of power used in an industry. The break up of persons employed and units in each industry by type of power used has been provided in the appendix to this Chapter for the Pradesh as a whole and for each district. Two statements have been compiled from the appendix showing the industries arranged in descending order of number of units (Statement IV-16) and persons employed (Statement IV-17) classified by power used.

It will be observed from the Statements IV-16 and IV-17 that ISIC Minor Group 200 — production of rice, *atta*, flour ranks as the top most industry of the Pradesh. It has the largest number of units and the largest number of persons employed. Excepting for one unit employing 2 persons, all other units (16,873) in this industry employing 17,331 persons, use power, 16,807 units of the industry employing 17,191 persons use 'other power', 46 units employing 96 persons use electricity and 20 units employing 44 persons use liquid fuel.

It may be noted that more than half of all the industrial units using 'other power' and liquid fuel in the Pradesh are in ISIC Minor Group 200. Units using electricity are 46 in this industry and 61 in all the other industries. In matters of employment there are 17,191 persons employed in the units using 'other power' in this industry against 444 in all other industries using the same power. Employment in the case of all industrial units using liquid fuel in the Pradesh is 91, out of which 44 are in ISIC Minor Group 200. In the case of electricity although the number of units is the highest in this industry when compared with any of the other industries using this power, the number of persons employed is less when compared with six other industries.

STATEMENT IV-16

Industries arranged in descending order of number of units classified by power used and no power

Sl. No.	ISIC Minor Group	Description	Total No. of industrial units	Number of industrial units classified by power used and no power				
				Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7	8	9
1	200	Production of rice, atta, flour	16,874	46	20	..	16,807	1
2	273	Making of textile garments	4,118	..	..	..	..	4,118
3	255	Wool weaving in handloom	4,106	..	..	..	..	4,106
4	311	Manufacture of shoes and other leather footwear	4,003	..	..	..	..	4,003
5	369	Manufacture of sundry hardwares	2,829	3	..	..	..	2,826
6	282	Manufacture of structural wooden goods	2,197	..	..	..	..	2,197
7	288	Manufacture of material from bamboo, leaves and other allied products.	1,518	..	..	..	..	1,518
8	350	Manufacture of earthenware and earthen pottery	880	..	..	..	..	880
9	393	Manufacture of jewellery, silverware	678	..	..	..	..	678
10	207	Production of edible fats and oils	399	6	5	..	388	..
		Total (1 to 10)	37,602	55	25	..	17,195	20,327
11	314	Repair of shoes and other leather footwear	79	..	..	..	..	79
12	365	Manufacture of brass and bell metal products	71	4	..	..	..	67
13	236	Manufacturing of Khadi textiles in handlooms	65	..	..	..	..	65
14	280	Sawing and planing of wood	63	10	7	..	1	45
15	281	Manufacture of wood furniture and fixtures	41	1	..	..	..	40
16	392	Assembling and repairing of watches and clocks	30	..	..	..	..	30
17	205	Production of bread, biscuits, cake and other bakery products.	28	..	..	..	..	28
18	388	Repairing of bicycles and tricycles	25	..	..	..	..	25
19	230	Cotton ginning, cleaning, carding	18	1	1	..	6	10
20	251	Wool cleaning and processing	17	1	..	..	12	4
21	378	Repairing and servicing of radios	17	..	..	..	..	17
22	384	Repairing and servicing of motor vehicles	16	9	..	..	..	7
23	368	Enamelling, galvanising, plating, polishing and welding of metal products.	15	..	..	..	..	15
24	362	Manufacture of armaments (guns)	14	3	..	..	..	11
25	271	Manufacture of hosiery and other knitted fabrics and garments.	14	2	..	..	..	12
26	214	Production of aerated and mineral water	13	1	..	..	..	12
27	202	Production of indigenous sugar, gur	10	..	2	..	2	6
		Total (1 to 27)	38,138	87	35	..	17,216	20,800
		Other (36 industries)	113	20	..	1	..	92
		GRAND TOTAL	38,251	107	35	1	17,216	20,892

STATEMENT IV-17

Industries arranged in descending order of persons employed classified by power used and no power

Sl. No.	ISIC Minor Group	Description	Total No. of persons employed	No. of persons employed classified by power used and no power				
				Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7	8	9
1	200	Production of rice, atta and flour	17,333	96	44	..	17,191	2
2	255	Wool weaving in handloom	5,738	..	..	..	..	5,738
3	311	Manufacture of shoes and other leather foot-wear	5,144	..	..	..	..	5,144
4	273	Making of textile garments	4,897	..	..	..	..	4,897
5	369	Manufacture of sundry hardwares	3,961	478	..	..	..	3,483
6	282	Manufacture of structural wooden goods	2,581	..	..	..	..	2,581
7	288	Manufacture of materials from bamboo, leaves and other allied products.	1,967	..	..	..	..	1,96
8	350	Manufacture of earthenware and earthen pottery	1,261	..	..	..	..	1,261
9	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruit and malts in distillery and brewery.	1,034	1,030	..	..	..	4
10	393	Manufacture of jewellery, silverware	845	..	..	..	..	845
11	207	Production of edible fats and oils	440	11	6	..	423	..
		Total (1 to 11)	45,201	1,615	50	..	17,614	25,922
12	384	Repairing and servicing of motor vehicles	323	306	..	..	..	17
13	287	Manufacture of boxes and packing cases other than plywood.	184	182	..	..	..	2
14	372	Manufacture of small machine tools and machine parts	165	165	..	..	..	..
15	280	Sawing and planing of wood	143	41	37	..	1	64
16	365	Manufacture of brass and bell metal products	135	36	..	..	..	99
17	236	Manufacturing of Khadi textiles in handlooms	126	..	..	..	..	126
18	337	Manufacture of turpentine and resin	122	122	..	..	..	..
19	362	Manufacture of armaments (guns)	101	88	..	..	..	13
20	314	Repair of shoes and other leather footwear	95	..	..	..	..	95
21	205	Production of bread, biscuits, cake and other bakery products.	59	..	..	..	..	59
22	281	Manufacture of wood furniture and fixtures	58	9	..	..	..	49
23	217	Processing of tea in factories	50	48	..	..	..	2
24	335	Manufacture of medicines	49	43	..	..	..	6
25	340	Manufacture of structural clay products such as bricks, tiles.	46	..	..	..	..	46
26	392	Assembling and repairing of watches and clocks	37	..	..	..	..	37
27	391	Manufacture of scientific, medical and surgical instruments and equipment supplies.	35	35	..	..	..	..
28	388	Repairing of bicycles and tricycles	32	..	..	..	..	32
29	214	Production of aerated and mineral water	29	10	..	..	..	19
30	271	Manufacture of hosiery and other knitted fabrics and garments.	28	5	..	..	..	23
31	378	Repairing and servicing of radios	22	..	..	..	..	22
32	230	Cotton ginning, cleaning and carding	21	3	2	..	6	10
33	201	Production of sugar and syrup from sugar cane in mills	20	20	..	..	..	..
34	251	Wool cleaning and processing	18	2	..	..	12	4
35	368	Enamelling, galvanising, plating and welding of metal products.	16	..	..	..	..	16
36	202	Production of indigenous sugar, gur	13	..	2	..	2	9
		Total (1 to 36)	47,128	2,730	91	..	17,635	26,672
		Other (27 industries)	138	26	..	6	..	106
		GRAND TOTAL	47,266	2,756	91	6	17,635	26,778

After ISIC Minor Group 200 there are ISIC Minor Groups 255 — wool weaving in handloom, 311 — manufacture of shoes and other leather footwear, 273 — making of textile garments, 369 — manufacture of sundry hardware, 282 — manufacture of structural wooden goods, 288 — manufacture of material from bamboo, leaves etc., and 350 — manufacture of earthenware and earthen pottery which rank as the important industries both by the number of units and persons employed. In these seven industries power is used only in 3 units of ISIC Minor Group 369 employing 478 persons.

After ISIC Minor Group 350, ISIC Minor Group 393 — manufacture of jewellery, and 207 — production of edible fats and oils are the other two important industries by number of units running into three digits. But by number of persons employed ISIC Minor Group 210 — production of distilled spirits, wines, liquor ranks higher to them. There are 1,034 persons employed in this industry in five of its units of which, 1,030 are employed in 4 units using electricity. Individually amongst the industries, this employment of 1,030 persons under electricity is the highest, and the second highest after ISIC Minor Group 200 when total employment under all powers is also taken into consideration.

The foregoing analysis goes to show that collectively ISIC Minor Groups 200, 273, 255, 311, 369, 282, 288, 350, 210, 393 and 207 account for more than half of the total industrial units and industrial employment in the Pradesh. Collectively their number of units and employment in them under electricity, liquid fuel, other power and no power are also more than half of their totals for the Pradesh. The use of power to run the machinery is to be found in only four of these eleven Minor Groups, viz., ISIC Minor Groups 200, 369, 210 and 207. There are 22 other industries besides them in the Pradesh which make use of power of one kind or the other, but their total number of units and employment is comparatively low.

As already stated earlier there are 63 different types of industries in the Pradesh of which 26 use power in some of their units, and the use of electricity as one of the powers is to be found in 24 industries (Statement IV-13). The extent of different types of power used in relation to total number of industrial units and employment in the Pradesh may be seen in the following Statement IV-18. Another analytical Statement IV-19 is also given after the Statement IV-18 showing the extent of electricity used in each of the 24 different types of industries which make use of this power.

STATEMENT IV-18

Extent of Different powers used

Extent of electricity used

No. of units			No. of persons employed		
Total No. of industrial units	No. of units using electricity	Percentage of units using electricity to total No. of units	Total No. of persons employed	No. of persons employed in units using electricity	Percentage of persons employed in units using Electricity to total No. of persons employed
1	2	3	4	5	6
38,251	107	0·28	47,266	2,756	5·83

Extent of liquid fuel used

No. of units			No. of persons employed		
Total No. of industrial units	No. of units using liquid fuel	Percentage of units using liquid fuel to total No. of units	Total No. of persons employed	No. of persons employed in units using liquid fuel	Percentage of persons employed in units using liquid fuel to total No. of persons employed
1	2	3	4	5	6
38,251	35	0·9	47,266	91	0·19

STATEMENT IV-18—concld.

Extent of coal, wood and bagasse used

Only one unit of an industry is using this fuel

Extent of 'other power' used

No. of units			No. of persons employed		
Total No. of industrial units	No. of units using other power	Percentage of units using other power to total No. of units	Total No. of persons employed	No. of persons employed in units using other power	Percentage of persons employed in units using other power to total No. of persons employed
1	2	3	4	5	6
38,251	17,216	45·00	47,266	17,635	37·31

STATEMENT IV-19

Extent of electricity used

Sl. No.	ISIC Minor Group	Description	No. of units			No. of persons employed		
			Total No. of units	No. of units using electricity	Percentage of units using Electricity to total No. of units	Total No. of persons employed	No. of persons employed in units using electricity	Percentage of persons employed in units using electricity to total number of persons employed
1	2	3	4	5	6	7	8	9
1	200	Production of rice, atta, flour	16,874	46	0·27	17,333	96	0·55
2	369	Manufacture of sundry hardwares	2,829	3	0·11	3,961	478	12·07
3	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruits and malts in distillery and brewery.	5	4	80·00	1,034	1,030	99·61
4	207	Production of edible fats and oils	399	6	1·50	440	11	2·50
5	384	Repairing and servicing of motor vehicles	16	9	56·25	323	306	94·74
6	287	Manufacture of boxes and packing cases other than plywood.	2	1	50·00	184	182	98·91
7	372	Manufacture of small machine tools and machine parts	3	3	100·00	165	165	100·00
8	280	Sawing and planing of wood	63	10	15·87	143	41	28·67
9	365	Manufacture of brass and bell metal products	71	4	5·63	135	36	26·67
10	337	Manufacture of turpentine, resin	2	2	100·00	122	122	100·00
11	362	Manufacture of armaments (guns)	14	3	21·43	101	88	87·13
12	281	Manufacture of wooden furniture and fixtures	41	1	2·44	58	9	15·52
13	217	Processing of tea in factories	3	1	33·33	50	48	96·00
14	335	Manufacture of medicines	6	1	16·67	49	43	87·76
15	391	Manufacture of scientific, medical and surgical instruments and equipment and supplies.	1	1	100·00	35	35	100·00
16	214	Production of aerated and mineral water	13	1	7·69	29	10	34·48
17	271	Manufacture of hosiery and other knitted fabrics and garments.	14	2	14·29	28	5	17·86
18	230	Cotton ginning, cleaning, carding	18	1	5·56	21	3	14·29
19	201	Production of sugar and syrup from sugar cane in mills	1	1	100·00	20	20	100 00
20	251	Wool cleaning and processing	17	1	5·88	18	2	11·11
21	284	Manufacture of other wooden products such as utensils, toys, artwares.	6	1	16·67	12	7	58·33

STATEMENT IV-19—*concld.*

Extent of electricity used—contd.

Serial No.	ISIC Minor Group	Description	No. of units			No. of persons employed		
			Total No. of units	No. of units using electricity	Percentage of units using electricity to total No. of units	Total No. of persons employed	No. of persons employed in units using electricity	Percentage of persons employed in units using electricity to total number of persons employed
1	2	3	4	5	6	7	8	9
22	270	Manufacture of carpet and all other similar type of textile products	5	1	20·00	11	5	45·45
23	302	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry.	4	3	75·00	10	9	90·00
24	303	All types of binding, stitching, sizing and other allied work connected with binding industry.	2	1	50·00	10	5	50·00
		Total	20,409	107	0·52	24,292	2,756	11·35

In conclusion it will also be usefull to examine the power/manual operation ratio and the man/power ratio, and for this the following two inset tables may be seen.

The two inset tables give information for all the industries collectively. Similar information for each industry is provided in the two Statements IV-20 and IV-21.

INSET TABLE NO. 1—*Power/manual operation ratio*

Total No. of persons employed in the industrial units	No. of persons employed in units using power	No. of persons employed in units using no power	Percentage of persons employed in units using power to total No. of persons employed	Percentage of persons employed in units using no power to total No. of persons employed
1	2	3	4	5
47,266	20,488	26,778	43·34	56·66

INSET TABLE NO. 2—*Number of persons employed per industrial unit according to type of power used or no power*

Total industrial units			Industrial units using electricity			Industrial units using liquid fuel		
No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit
1	2	3	4	5	6	7	8	9
38,251	47,266	1·23	107	2,756	25·75	35	91	2·60

Industrial units using coal, wood and bagasse			Industrial units using other power			Industrial units with no power		
No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit
10	11	12	13	14	15	16	17	18
1	6	6	17,216	17,635	1·02	20,892	26,778	1·28

STATEMENT IV-20

Power/manual operation ratio

Serial No.	ISIC Minor Group	Description	Total No. of persons employed	No. of persons employed in units using power	No. of persons employed in units using no power	Percentage of persons employed in units using power to total No. of persons employed	Percentage of persons employed in units using no power to total No. of persons employed
1	2	3	4	5	6	7	8
1	200	Production of rice, atta, flour	17,333	17,331	2	99·99	0·01
2	255	Wool weaving in handloom	5,738	..	5,738		
3	311	Manufacture of shoes and other leather footwear	5,144	..	5,144		
4	273	Making of textile garments	4,897	..	4,897		
5	369	Manufacture of sundry hardwares	3,961	478	3,483	12·07	87·93
6	282	Manufacture of structural wooden goods	2,581	..	2,581		
7	288	Manufacture of materials from bamboo, leaves and other allied products	1,967	..	1,967		
8	350	Manufacture of earthen-ware and earthen pottery	1,261	..	1,261		
9	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruits and malts in distillery and brewery	1,034	1,030	4	99·61	0·39
10	393	Manufacture of jewellery, silverware	845	..	845		
11	207	Production of edible fats and oils	440	440	..		
12	384	Repairing and servicing of motor vehicles	323	306	17	94·74	5·26
13	287	Manufacture of boxes and packing cases other than plywood	184	182	2	98·91	1·09
14	372	Manufacture of small machine tools and machine parts	165	165	..		
15	280	Sawing and planing of wood	143	79	64	55·24	44·76
16	365	Manufacture of brass and bell metal products	135	36	99	26·67	73·33
17	236	Manufacturing of Khadi textiles in handlooms	126	..	126		
18	337	Manufacture of turpentine, resin	122	122	..		
19	362	Manufacture of armaments (guns)	101	88	13	87·13	12·87
20	314	Repair of shoes and other leather footwear	95	..	95		
21	205	Production of bread, biscuits, cake and other bakery products	59	..	59		
22	281	Manufacture of wood furniture and fixtures	58	9	49	15·52	84·48
23	217	Processing of tea in factories	50	48	2	96·00	4·00
24	335	Manufacture of medicines	49	43	6	87·76	12·24
25	340	Manufacture of structural clay products such as bricks, tiles	46	..	46		
26	392	Assembling and repairing of watches and clocks	37	..	37		
27	391	Manufacture of scientific, medical and surgical instruments and equipment supplies	35	35	..		
28	388	Repairing of bicycles and tricycles	32	..	32		
29	214	Production of aerated and mineral water	29	10	19	34·48	65·52
30	271	Manufacture of hosiery and other knitted fabrics and garments	28	5	23	17·86	82·14
31	378	Repairing and servicing of radios	22	..	22		
32	230	Cotton ginning, cleaning, carding	21	11	10	52·38	47·62
33	201	Production of sugar and syrup from sugar cane in mills	20	20	..		
34	251	Wool cleaning and processing	18	14	4	77·78	22·22
35	365	Enamelling, galvanising, plating, polishing and welding of metal products	16	..	16		
36	202	roduction of indigenous sugar, gur	13	4	9	30·77	69·23

STATEMENT IV-20—*concld*

Power/manual operation ratio—concld.

Serial No.	ISIC Minor Group	Description	Total No. of persons employed	No. of persons employed in units using power	No. of persons employed in units using no power	Percentage of persons employed in units using power to total No. of persons employed	Percentage of persons employed in units using no power to total No. of persons employed
1	2	3	4	5	6	7	8
37	284	Manufacture of other wooden products such as utensils, toys, artwares	12	7	5	58·33	41·67
38	270	Manufacture of carpet and all other similar type of textile products	11	5	6	45·45	54·55
39	262	Spinning of silk other than in mills	10	6	4	60·00	40·00
40	302	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry	10	9	1	90·00	10·00
41	303	All types of binding, stitching, sizing and other allied work connected with binding industry	10	5	5	50·00	50·00
42	206	Production of butter, ghee	9	..	9		
43	333	Manufacture of ammunition, explosives and fire works	9	..	9		
44	279	Processing and manufacture of textile products not covered above	7	..	7		
45	399	Manufacture and repair work of goods not assignable to any other group	7	..	7		
46	239	Manufacturing of cotton cordage, rope and twine	6	..	6		
47	289	Manufacturing of other wood and allied products not covered above	6	..	6		
48	336	Manufacture of soap and other washing and cleaning compounds	6	..	6		
49	343	Manufacture of structural stone goods, stone dressing and stone crushing	6	..	6		
50	244	Manufacture of other products like rope, cordage	5	..	5		
51	233	Cotton dyeing, bleaching	4	..	4		
52	272	Embroidery	4	..	4		
53	274	Manufacture of made up textile goods except wearing apparel such as curtains, pillow cases, bedding materials, mattress, textile bags	2	..	2		
54	278	Manufacture of umbrellas	2	..	2		
55	342	Manufacture of lime	2	..	2		
56	356	Manufacture of earthen toys and artwares except those covered by code No. 355	2	..	2		
57	379	Manufacture of electric machinery and apparatus, appliances not specified above, repairing and servicing of electrical apparatus, heaters, oven etc.	2	..	2		
58	211	Production of country liquor	1	..	1		
59	237	Printing of cotton textile	1	..	1		
60	292	Manufacture of products such as paper bags, boxes, cards, envelopes, and moulded pulp goods from paper, paper board, and pulp	1	..	1		
61	310	Curing, tanning and finishing of hides and skins and preparation of finished leather	1	..			
62	339	Manufacture of other chemicals and chemical products not covered above (including inedible oils and fats)	1	..	1		
63	389	Manufacture of other transport equipment not covered above such as animal drawn and hand drawn vehicles	1	..	1		

STATEMENT IV-21

Number of persons employed per industrial unit according to type of power used

Serial No.	ISIC Minor Group	Description	Electricity			Liquid fuel			Coal, wood and bagasse			Other power			No power		
			No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	200	Production of rice, atta, flour	46	96	2·09	20	44	2·20	..	..	..	16,807	17,191	102·28	1	2	2·00
2	201	Production of sugar and syrup from sugar cane in mills	1	20	20·00	..	..	..	..	..	..	..	..	..	..	..	..
3	202	Production of indigenous sugar and gur	..	..	..	2	2	1·00	..	..	..	2	2	1·00	6	9	1·50
4	205	Production of bread, biscuits, cake and other bakery products	..	..	..	..	..	..	..	..	..	..	..	..	28	59	2·11
5	206	Production of butter and ghee	..	..	..	..	..	..	..	..	..	..	..	..	7	9	1·29
6	207	Production of edible fats and oils	6	11	1·83	5	6	1·20	..	..	..	388	423	1·09	..	..	..
7	210	Production of distilled spirits, wines, liquor from alcoholic malt, fruit and malts in distillery and brewery	4	1,030	257·50	..	..	..	..	..	..	..	..	..	1	4	4·00
8	211	Production of country liquor	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1·00
9	214	Production of aerated and mineral water	1	10	10·00	..	..	..	..	..	..	..	..	..	12	19	1·58
10	217	Processing of tea in factories	1	48	48·00	..	..	..	..	..	..	..	..	..	2	2	1·00
11	230	Cotton ginning, cleaning and carding	1	3	3·00	1	2	2·00	..	..	..	6	6	1·00	10	10	1·00
12	233	Cotton dyeing, bleaching	..	..	..	..	..	..	..	..	..	..	..	..	4	4	1·00
13	236	Manufacturing of Khadi textiles in handlooms	..	..	..	..	..	..	..	..	..	..	..	..	65	126	1·94

STATEMENT IV-21—*contd.*

Number of persons employed per industrial unit according to type of power used—contd.

Serial No.	ISIC Minor Group	Description	Electricity			Liquid fuel			Coal, wood and bagasse			Other power			No power		
			No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit.	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
14	237	Printing of cotton textiles	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1·00
15	239	Manufacturing of cotton cordage, rope and twine	..	..	..	..	..	..	..	..	..	..	..	..	3	6	2·00
16	244	Manufacture of other products like rope, cordage from jute and similar fibre such as hemp, mesta	..	..	..	..	..	..	..	..	..	..	..	..	5	5	1·00
17	251	Wool cleaning and processing	1	2	2·00	..	..	..	..	..	..	12	12	1·00	4	4	1·00
18	255	Wool weaving in handloom	..	..	..	..	..	..	..	..	..	..	..	..	4,106	5,738	1·40
19	262	Spinning of silk other than in mills	..	..	..	..	..	..	1	6	6·00	..	..	..	1	4	4·00
20	270	Manufacture of carpet and all other similar type of textile products	1	5	5·00	..	..	..	..	..	..	..	..	..	4	6	1·50
21	271	Manufacture of hosiery and other knitted fabrics and garments	2	5	2·50	..	..	..	..	..	..	..	..	..	12	23	1·92
22	272	Embroidery	..	..	..	..	..	..	..	..	..	..	..	..	4	4	1·00
23	273	Making of textile garments	..	..	..	..	..	..	..	..	..	..	..	..	4,118	4,897	1·19
24	274	Manufacture of made up textile goods except wearing apparel such as curtains, pillow cases, bedding materials, mattress, textile bags	..	..	..	..	..	..	..	..	..	..	..	..	2	2	1·00
25	278	Manufacture of umbrellas	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2·00
26	279	Processing and manufacture of textile products not covered above	..	..	..	..	..	..	..	..	..	..	..	..	6	7	1·17

27	280	Sawing and planing of wood .	10	41	4·10	7	37	5·29	..	..	..	1	1	1·00	45	64	1·42
28	281	Manufacture of wooden furniture and fixtures . .	1	9	9·00	..	..	..	..	..	..	..	..	..	40	49	1·23
29	282	Manufacture of structural wooden goods . . .	..	..	..	..	..	..	..	..	..	..	..	..	2,197	2,581	1·17
30	284	Manufacture of other wooden products such as utensils, toys, artwares	1	7	7·00	..	..	..	..	..	..	..	..	..	5	5	1·00
31	287	Manufacture of boxes and packing cases other than plywood .	1	182	182·00	..	..	..	..	..	..	..	..	..	1	2	2·00
32	288	Manufacture of materials from bamboo, leaves and other allied products	..	..	..	..	..	..	..	..	..	..	..	..	1,518	1,967	1·30
33	289	Manufacture of other wood and allied products not covered above	..	..	..	..	..	..	..	..	..	..	..	..	6	6	1·00
34	292	Manufacture of products such as paper bags, boxes, cards, envelopes and moulded pulp goods from paper, paper boards and pulp	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1·00
35	302	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry . .	3	9	3·00	..	..	..	..	..	..	..	..	..	1	1	1·00
36	303	All types of binding, stitching, sizing and other allied work connected with binding industry	1	5	5·00	..	..	..	..	..	..	..	..	..	1	5	5·00
37	310	Curing, tanning and finishing of hides and skins and preparation of finished leather .	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1·00
38	311	Manufacture of shoes and other leather footwear . . .	..	..	..	..	..	..	..	..	..	..	..	..	4,003	5,144	1·29
39	314	Repair of shoes and other leather footwear . . .	..	..	..	..	..	..	..	..	..	..	..	..	79	95	1·20
40	333	Manufacture of ammunition, explosives and fireworks . .	..	..	..	..	..	..	..	..	..	..	..	..	7	9	1·29

STATEMENT IV-21—*concld.*

Number of persons employed per industrial unit according to type of power used—concld.

Serial No.	ISIC Minor Group	Description	Electricity			Liquid fuel			Coal wood and bagasse			Other power			No power		
			No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit	No. of units	No. of persons employed	Average No. of persons employed per unit
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
41	335	Manufacture of medicines	1	43	43·00	..	..	..	..	..	..	..	..	..	5	6	1·20
42	336	Manufacture of soap and other washing and cleaning compounds	..	..	..	..	..	..	..	..	..	..	..	..	4	6	3·00
43	337	Manufacture of turpentine, rosin	2	122	61·00	..	..	..	..	..	..	..	..	..	..	..	..
44	339	Manufacture of other chemicals and chemical products not covered above (including inedible oils and fats)	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1·00
45	340	Manufacture of structural clay products such as bricks, tiles	..	..	..	..	..	..	..	..	..	..	..	..	2	46	23·00
46	342	Manufacture of lime	..	..	..	..	..	..	..	..	..	..	..	..	2	2	1·00
47	343	Manufacture of structural stone goods, stone dressing and stone crushing	..	..	..	..	..	..	..	..	..	..	..	..	6	6	1·00
48	350	Manufacture of earthenware and earthen pottery	..	..	..	..	..	..	..	..	..	..	..	..	880	1,261	1·43
49	356	Manufacture of earthen toys and artwares except those covered by code No. 355	..	..	..	..	..	..	..	..	..	..	..	..	2	2	1·00
50	362	Manufacture of armaments (guns)	3	88	29·32	..	..	..	..	..	..	..	..	..	11	13	1·18
51	365	Manufacture of brass and bell metal products	4	36	9·00	..	..	..	..	..	..	..	..	..	67	99	1·48

52	368	Enamelling, galvanising, plating, polishing and welding of metal products	..	..	..	..	..	..	..	..	..	..	..	..	15	16	1·07
53	369	Manufacture of sundry hardwares	3	478	159·33	..	..	..	..	..	..	..	..	..	2,826	3,483	1·23
54	372	Manufacture of small machine tools and machine parts	3	165	55·00	..	..	..	..	..	..	..	..	..	..	..	..
55	378	Repairing and servicing of radios	..	..	..	..	..	..	..	..	..	..	..	..	17	22	1·29
56	379	Manufacture of electric machinery and apparatus, appliances not specified above. Repairing and servicing of electrical apparatus, heaters, oven etc.	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2·00
57	384	Repairing and servicing of motor vehicles	9	306	34·00	..	..	..	..	..	..	..	..	..	7	17	2·43
58	388	Repairing of bicycles and tricycles	..	..	..	..	..	..	..	..	..	..	..	..	25	32	1·28
59	389	Manufacture of other transport equipment not covered above such as animal drawn and hand drawn vehicles	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1·00
60	391	Manufacture of scientific, medical and surgical instruments and equipment and supplies	1	35	35·00	..	..	..	..	..	..	..	..	..	..	..	..
61	392	Assembling and repairing of watches and clocks	..	..	..	..	..	..	..	..	..	..	..	..	30	37	1·23
62	393	Manufacture of jewellery, silverware	..	..	..	..	..	..	..	..	..	..	..	..	678	845	1·25
63	399	Manufacture and repair work of goods not assignable to any other group	..	..	..	..	..	..	..	..	..	..	..	..	5	7	1·40

SUBSIDIARY TABLE E-III. 1

Proportion of factories and workshops according to Divisions, Major Groups and selected Minor Groups to 1,000 *factories and workshops*

Union Territory/District	All Factories & Workshops	Division 2 & 3	Major Group 20	Minor Group 200	Major Group 21	Major Group 23	Major Group 24	Major Group 25	Minor Group 255	Major Group 26	Major Group 27	Minor Group 273	Major Group 28	Minor Group 282	Minor Group 288	Major Group 29	Major Group 30	Major Group 31	Minor Group 311	Major Group 33	Major Group 34-3.	Minor Group 350	Major Group 36	Minor Group 369	Major Group 37	Major Group 38	Major Group 39	Minor Group 393
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
HIMACHAL PRADESH																												
Rural . . .	1,000	1,000	471	460	N	2	N	113	112	N	99	98	98	55	41	0	0	102	100	N	23	23	77	75	N	N	15	15
Urban . . .	1,000	1,000	103	80	9	16	0	21	20	N	298	288	149	99	24	N	3	193	193	6	24	19	69	54	8	17	84	66
Chamba District																												
Rural . . .	1,000	1,000	430	408	0	0	0	208	206	0	88	88	80	37	39	0	0	100	94	0	28	28	51	49	0	N	15	15
Urban . . .	1,000	1,000	76	31	0	0	0	69	69	0	320	305	84	38	0	0	8	214	214	0	0	0	76	53	15	8	130	99
Mandi District																												
Rural . . .	1,000	1,000	547	532	N	1	0	75	75	0	64	64	88	50	38	0	0	100	98	N	33	33	79	77	N	0	13	12
Urban . . .	1,000	1,000	119	100	10	24	0	20	19	1	295	288	144	87	37	1	1	208	208	5	35	31	67	60	2	13	55	42
Bilaspur District																												
Rural . . .	1,000	1,000	370	360	0	8	1	40	39	0	113	111	59	37	21	0	0	198	195	0	35	35	161	160	0	0	15	15
Urban . . .	1,000	1,000	165	143	0	26	0	4	4	0	257	250	209	132	33	0	0	99	99	15	15	11	48	40	11	26	125	114
Mahasu District																												
Rural . . .	1,000	1,000	490	487	N	3	N	82	82	0	130	130	119	73	44	0	0	77	76	N	10	10	69	66	N	1	19	19
Urban . . .	1,000	1,000	52	29	17	6	0	29	29	0	331	313	107	87	0	0	9	238	238	3	0	0	49	43	23	26	110	72
Sirmur District																												
Rural . . .	1,000	1,000	386	374	0	1	0	44	44	N	147	147	142	68	73	0	0	156	156	0	16	16	90	88	N	1	17	17
Urban . . .	1,000	1,000	71	46	9	6	0	9	9	0	297	285	180	139	15	0	3	180	180	9	37	25	108	65	0	13	78	68
Kinnaur District*																												
Rural . . .	1,000	1,000	412	412	0	N	N	376	375	0	49	48	71	61	1	0	0	10	9	0	16	15	58	56	0	0	8	8

*Entirely rural.
N=Negligible.

SUBSIDIARY TABLE E-III. 2

Distribution of 1,000 *factories and workshops in each kind of fuel used by size of employment*

Union Territory/District (Rural/Urban)	Electricity							Liquid fuel						
	1 Person	2—5 Persons	6—9 Persons	10—19 Persons	20—49 Persons	50—99 Persons	100 Persons & above	1 Person	2—5 Persons	6—9 Persons	10—19 Persons	20—49 Persons	50—99 Persons	100 Persons & above
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
HIMACHAL PRADESH														
Rural . . .	346	404	39	39	115	19	38	500	313	156	31	0	0	0
Urban . . .	157	431	98	79	78	20	137	333	667	0	0	0	0	0
Chamba District														
Rural . . .	0	667	167	0	166	0	0	0	0	0	1,000	0	0	0
Urban . . .	167	833	0	0	0	0	0	0	0	0	0	0	0	0
Mandi District														
Rural . . .	480	440	0	40	40	0	0	727	182	91	0	0	0	0
Urban . . .	63	312	188	125	312	0	0	0	0	0	0	0	0	0
Bilaspur District														
Rural . . .	750	250	0	0	0	0	0	556	444	0	0	0	0	0
Urban . .	0	0	0	0	1,000	0	0	0	0	0	0	0	0	0
Mahasu District														
Rural . . .	0	273	91	91	363	91	91	375	250	375	0	0	0	0
Urban . . .	100	400	100	50	50	50	250	500	500	0	0	0	0	0
Sirmur District														
Rural . . .	0	500	0	0	500	0	0	0	667	333	0	0	0	0
Urban . . .	333	333	0	167	0	0	167	0	1,000	0	0	0	0	0
Kinnaur District*														
Rural . . .	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*Entirely rural.
N=Negligible.

SUBSIDIARY TABLE E-III. 2—*contd.*

Distribution of 1,000 *factories and workshops in each kind of fuel used by size of employment*—contd.

Union Territory/District (Rural/Urban)	Coal, wood & bagasse							Other power							No power						
	1 Person	2—5 Persons	6—9 Persons	10—19 Persons	20—49 Persons	50—99 Persons	100 Persons & above	1 Person	2—5 Persons	6—9 Persons	10—19 Persons	20—49 Persons	50—99 Persons	100 Persons & above	1 Person	2—5 Persons	6—9 Persons	10—19 Persons	20—49 Persons	50—99 Persons	100 Persons & above
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
HIMACHAL PRADESH																					
Rural . . .	0	0	1,000	0	0	0	0	984	15	1	0	0	0	0	826	170	3	1	N	0	0
Urban . . .	0	0	0	0	0	0	0	873	127	0	0	0	0	0	734	251	6	5	3	1	0
Chamba District																					
Rural . . .	0	0	0	0	0	0	0	998	2	N	0	0	0	0	828	165	6	1	0	0	0
Urban . . .	0	0	0	0	0	0	0	1,000	0	0	0	0	0	0	603	347	8	17	17	8	0
Mandi District																					
Rural . . .	0	0	0	0	0	0	0	981	17	2	0	0	0	0	855	142	2	1	0	0	0
Urban . . .	0	0	0	0	0	0	0	930	70	0	0	0	0	0	785	203	4	7	1	0	0
Bilaspur District																					
Rural . . .	0	0	0	0	0	0	0	898	101	1	0	0	0	0	802	196	2	0	0	0	0
Urban . . .	0	0	0	0	0	0	0	711	289	0	0	0	0	0	743	257	0	0	0	0	0
Mahasu District																					
Rural . . .	0	0	0	0	0	0	0	995	5	N	0	0	0	0	838	159	3	N	0	0	0
Urban . . .	0	0	0	0	0	0	0	1,000	0	0	0	0	0	0	628	357	6	3	6	0	0
Sirmur District																					
Rural . . .	0	0	1,000	0	0	0	0	996	3	1	0	0	0	0	828	170	1	0	1	0	0
Urban . . .	0	0	0	0	0	0	0	1,000	0	0	0	0	0	0	768	219	13	0	0	0	0
Kinnaur District*																					
Rural . . .	0	0	0	0	0	0	0	988	12	0	0	0	0	0	685	309	1	2	0	0	0

*Entirely rural.
N=Negligible.

SUBSIDIARY TABLE E-III. 3

Distribution of 1,000 *factories and workshops in each Division, Major Group and selected Minor Group by kind of fuel or power used*

Union Territory/ District	Rural Urban	Type of power	Division 2 & 3	Major Group 20	Minor Group 200	Major Group 21	Major Group 23	Major Group 25	Major Group 26	Major Group 27	Major Group 28	Major Group 30	Major Group 33	Major Group 36	Minor Group 369	Major Group 37	Major Group 38	Major Group 39
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
HIMACHAL PRADESH	Rural	Electricity	1	2	2	400	0	0	0	0	2	0	167	N	N	167	500	0
		Liquid fuel	1	1	1	0	17	0	0	0	2	0	0	0	0	0	0	0
		Coal, wood & bagasse	N	0	0	0	0	0	1,000	0	0	0	0	0	0	0	0	0
		Other power	470	996	997	0	83	3	0	0	N	0	0	0	0	0	0	0
		No power	528	1	N	600	900	997	0	1,000	996	0	833	1,000	1,000	833	500	1,000
	Urban	Electricity	29	87	85	235	32	25	0	5	25	667	167	69	19	133	125	6
		Liquid fuel	1	15	20	0	0	0	0	0	0	0	0	0	0	0	0	0
		Other power	79	760	895	0	32	0	0	0	0	0	0	0	0	0	0	0
		No power	891	138	0	765	936	975	1,000	995	975	333	833	931	981	867	875	994
Chamba District	Rural	Electricity	1	1	1	0	0	9	0	0	2	0	0	3	3	0	1,000	0
		Liquid fuel	N	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		Other power	430	999	999	0	0	6	0	0	0	0	0	0	0	0	0	0
		No power	569	N	N	0	0	994	0	1,000	996	0	0	997	997	0	0	1,000
	Urban	Electricity	46	200	500	0	0	0	0	0	273	0	0	0	0	0	0	0
		Other power	30	400	500	0	0	0	0	0	0	0	0	0	0	0	0	0
		No power	924	400	0	0	0	1,000	0	1,000	727	1,000	0	1,000	1,000	1,000	1,000	1,000
Mandi District	Rural	Electricity	2	4	4	250	0	0	0	0	2	0	0	0	0	0	0	0
		Liquid fuel	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		Other power	543	992	995	0	0	5	0	0	1	0	0	0	0	0	0	0
		No power	454	2	0	750	1,000	995	0	1,000	997	0	1,000	1,000	1,000	1,000	0	1,000
	Urban	Electricity	19	40	48	0	50	59	0	0	17	0	250	39	20	0	182	0
		Other power	103	860	952	0	0	0	0	0	0	0	0	0	0	0	0	0
		No power	878	100	0	1,000	950	941	1,000	1,000	983	0	750	911	980	1,000	818	1,000
Bilaspur District	Rural	Electricity	3	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0
		Liquid fuel	3	8	6	0	43	0	0	0	0	0	0	0	0	0	0	0
		Other power	365	983	986	0	217	0	0	0	0	0	0	0	0	0	0	0
		No power	629	1	0	0	740	1,000	0	1,000	1,000	0	0	1,000	1,000	0	0	1,000
	Urban	Electricity	4	0	0	0	0	0	0	0	0	0	0	0	0	0	143	0
		Other power	165	978	1,000	0	143	0	0	0	0	0	0	0	0	0	0	0
		No power	831	22	0	0	857	1,000	0	1,000	1,000	0	1,000	1,000	1,000	1,000	857	1,000
Mahasu District	Rural	Electricity	1	N	0	1,000	0	0	0	0	3	0	500	0	0	333	667	0
		Liquid fuel	1	1	N	0	0	0	0	0	4	0	0	0	0	0	0	0
		Other power	490	999	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0
		No power	508	0	0	0	1,000	1,000	0	1,000	993	0	500	1,000	1,000	667	333	1,000

SUBSIDIARY TABLE E-III. 3—*contd.*

Distribution of 1,000 *factories and workshops in each Division, Major Group and selected Minor Group by kind of fuel or power used*—contd.

Union Territory/ District	Rural Urban	Type of power	Division 2 & 3	Major Group 20	Minor Group 200	Major Group 21	Minor Group 23	Major Group 25	Minor Group 26	Major Group 27	Minor Group 28	Major Group 30	Minor Group 33	Major Group 36	Minor Group 369	Major Group 37	Major Group 38	Major Group 39
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Urban	Electricity	58	167	200	667	0	0	0	26	54	1,000	0	118	0	250	0	26
		Liquid fuel	6	111	200	0	0	0	0	0	0	0	0	0	0	0	0	0
		Other power	17	333	600	0	0	0	0	0	0	0	0	0	0	0	0	0
		No power	919	389	0	333	1,000	1,000	0	974	946	0	1,000	882	1,000	750	1,000	974
Sirmur District	Rural	Electricity	1	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0
		Liquid fuel	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		Coal, wood & bagasse	N	0	0	0	0	0	1,000	0	0	0	0	0	0	0	0	0
		Other power	85	997	998	0	0	0	0	0	0	0	0	0	0	0	0	0
		No power	13	1	0	0	1.000	1,000	0	1,000	998	0	0	1,000	1,000	1,000	1,000	1,000
	Urban	Electricity	34	348	333	0	0	0	0	0	0	0	333	57	48	0	0	0
		Liquid fuel	3	44	67	0	0	0	0	0	0	0	0	0	0	0	0	0
		Other power	28	391	600	0	0	0	0	0	0	0	0	0	0	0	0	0
		No power	935	217	0	1,000	1,000	1,000	0	1,000	1,000	1,000	667	943	952	0	1,000	1,000
Kinnaur District*	Rural	Other power	412	1,000	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0
		No power	588	0	0	0	1,000	1,000	0	1,000	1,000	0	0	1,000	1,000	0	0	1,000

*Entirely rural.

N=Negligible.

NOTE— Factories and workshops under the following Major Groups and Minor Groups run without power—

Major group	24
Minor group	255
Minor group	233
Minor group	282
Minor group	288
Major group	29
Major group	31
Minor group	311
Major group	34–35
Minor group	350
Minor group	393

APPENDIX TO CHAPTER IV

Industries showing number of industrial units and persons employed by kind of power used and no power—HIMACHAL PRADESH

ISIC Minor Group	No. of units	No. of persons employed	Power used								No power	
			Electricity		Liquid fuel		Coal, wood and bagasse		Other power			
			Units	Employees	Units	Employees	Units	Employees	Units	Employees	Units	Employees
1	2	3	4	5	6	7	8	9	10	11	12	13
200	16,874	17,333	46	96	20	44	..	..	16,807	17,191	1	2
201	1	20	1	20	..	..	..	..	..	..	..	..
202	10	13	..	..	2	2	..	..	2	2	6	9
205	28	59	..	..	..	..	..	..	..	..	28	59
206	7	9	..	..	..	..	..	..	..	..	7	9
207	399	440	6	11	5	6	..	..	388	423	..	..
210	5	1,034	4	1,030	..	..	..	..	..	..	1	4
211	1	1	..	..	..	..	..	..	..	..	1	1
214	13	29	1	10	..	..	..	..	..	..	12	19
217	3	50	1	48	..	..	..	..	..	..	2	2
230	18	21	1	3	1	2	..	..	6	6	10	10
233	4	4	..	..	..	..	..	..	..	..	4	4
236	65	126	..	..	..	..	..	..	..	..	65	126
237	1	1	..	..	..	..	..	..	..	..	1	1
239	3	6	..	..	..	..	..	..	..	..	3	6
244	5	5	..	..	..	..	..	..	..	..	5	5
251	17	18	1	2	..	..	..	..	12	12	4	4
255	4,106	5,738	..	..	..	..	..	..	..	..	4,106	5,738
262	2	10	..	..	..	..	1	6	..	..	1	4
270	5	11	1	5	..	..	..	..	..	..	4	6
271	14	28	2	5	..	..	..	..	..	..	12	23
272	4	4	..	..	..	..	..	..	..	..	4	4
273	4,118	4,897	..	..	..	..	..	..	..	..	4,118	4,897
274	2	2	..	..	..	..	..	..	..	..	2	2
278	1	2	..	..	..	..	..	..	..	..	1	2
279	6	7	..	..	..	..	..	..	..	..	6	7
280	63	143	10	41	7	37	..	..	1	1	45	64
281	41	58	1	9	..	..	..	..	..	..	40	49
282	2,197	2,581	..	..	..	..	..	..	..	..	2,197	2,581
284	6	12	1	7	..	..	..	..	..	..	5	5

APPENDIX TO CHAPTER IV—contd.

Industries showing number of industrial units and persons employed by kind of power used and no power—HIMACHAL PRADESH—contd.

ISIC Minor Group	No. of units	No. of persons employed	Power used								No power	
			Electricity		Liquid fuel		Coal, wood and bagasse		Other power			
			Units	Employees	Units	Employees	Units	Employees	Units	Employees	Units	Employees
1	2	3	4	5	6	7	8	9	10	11	12	13
287	2	184	1	182	..	..	..	..	..	..	1	2
288	1,518	1,967	..	..	..	..	..	..	..	..	1,518	1,967
289	6	6	..	..	..	..	..	..	..	..	6	6
292	1	1	..	..	..	..	..	..	..	..	1	1
302	4	10	3	9	..	..	..	..	..	..	1	1
303	2	10	1	5	..	..	..	..	..	..	1	5
310	1	1	..	..	..	..	..	..	..	..	1	1
311	4,003	5,144	..	..	..	..	..	..	..	..	4,003	5,144
314	79	95	..	..	..	..	..	..	..	..	79	95
333	7	9	..	..	..	..	..	..	..	..	7	9
335	6	49	1	43	..	..	..	..	..	..	5	6
336	2	6	..	..	..	..	..	..	..	..	2	6
337	2	122	2	122	..	..	..	..	..	..	..	..
339	1	1	..	..	..	..	..	..	..	..	1	1
340	2	46	..	..	..	..	..	..	..	..	2	46
342	2	2	..	..	..	..	..	..	..	..	2	2
343	6	6	..	..	..	..	..	..	..	..	6	6
350	880	1,261	..	..	..	..	..	..	..	..	880	1,261
356	2	2	..	..	..	..	..	..	..	..	2	2
362	14	101	3	88	..	..	..	..	..	..	11	13
365	71	135	4	36	..	..	..	..	..	..	67	99
368	15	16	..	..	..	..	..	..	..	..	15	16
369	2,829	3,961	3	478	..	..	..	..	..	..	2,826	3,483
372	3	165	3	165	..	..	..	..	..	..	..	..
378	17	22	..	..	..	..	..	..	..	..	17	22
379	1	2	..	..	..	..	..	..	..	..	1	2
384	16	323	9	306	..	..	..	..	..	..	7	17
388	25	32	..	..	..	..	..	..	..	..	25	32
389	1	1	..	..	..	..	..	..	..	..	1	1
391	1	35	1	35	..	..	..	..	..	..	..	..
392	30	37	..	..	..	..	..	..	..	..	30	37
393	678	845	..	..	..	..	..	..	..	..	678	845
399	5	7	..	..	..	..	..	..	..	..	5	7

APPENDIX TO CHAPTER IV—contd.

Industries showing number of industrial units and persons employed by kind of power used and no power—CHAMBA DISTRICT

ISIC Minor Group	No. of units	No. of persons employed	Power used								No power	
			Electricity		Liquid fuel		Coal, wood and bagasse		Other power			
			Units	Employees	Units	Employees	Units	Employees	Units	Employees	Units	Employees
1	2	3	4	5	6	7	8	9	10	11	12	13
200	2,792	2,807	4	8	..	..	..	..	2,787	2,797	1	2
205	4	8	..	..	..	..	..	..	..	..	4	8
207	150	152	1	2	..	..	..	..	149	150	..	..
251	10	10	..	..	..	..	..	..	8	8	2	2
255	1,419	2,071	..	..	..	..	..	..	..	..	1,419	2,071
272	1	1	..	..	..	..	..	..	..	..	1	1
273	640	720	..	..	..	..	..	..	..	..	640	720
274	1	1	..	..	..	..	..	..	..	..	1	1
279	2	3	..	..	..	..	..	..	..	..	2	3
280	19	47	3	8	1	13	..	..	..	..	15	26
281	12	22	1	9	..	..	..	..	..	..	11	13
282	257	292	..	..	..	..	..	..	..	..	257	292
288	266	343	..	..	..	..	..	..	..	..	266	343
289	5	5	..	..	..	..	..	..	..	..	5	5
303	1	5	1	5	..	..	..	..	..	..	..	..
311	668	946	..	..	..	..	..	..	..	..	668	946
314	44	57	..	..	..	..	..	..	..	..	44	57
350	193	264	..	..	..	..	..	..	..	..	193	264
362	2	2	..	..	..	..	..	..	..	..	2	2
365	14	20	..	..	..	..	..	..	..	..	14	20
368	1	1	..	..	..	..	..	..	..	..	1	1
369	342	395	1	2	..	..	..	..	..	..	341	393
378	1	1	..	..	..	..	..	..	..	..	1	1
379	1	2	..	..	..	..	..	..	..	..	1	2
384	1	30	1	30	..	..	..	..	..	..	..	..
388	1	1	..	..	..	..	..	..	..	..	1	1
392	2	2	..	..	..	..	..	..	..	..	2	2
393	118	153	..	..	..	..	..	..	..	..	118	153
399	2	3	..	..	..	..	..	..	..	..	2	3

APPENDIX TO CHAPTER IV—contd.

Industries showing number of industrial units and persons employed by kind of power used and no power—MANDI DISTRICT

ISIC Minor Group	No. of units	No. of persons employed	Power used								No power	
			Electricity		Liquid fuel		Coal, wood and bagasse		Other power			
			Units	Employees	Units	Employees	Units	Employees	Units	Employees	Units	Employees
1	2	3	4	5	6	7	8	9	10	11	12	13
200	5,915	6,147	26	61	7	14	..	..	5,882	6,072	..	..
202	7	10	..	..	..	..	..	..	2	2	5	8
205	11	19	..	..	..	..	..	..	..	..	11	19
206	6	8	..	..	..	..	..	..		..	6	8
207	146	172	..	..	4	4	..	..	142	168	..	..
211	1	1	..	..	..	..	..	..	..	..	1	1
214	8	10	..	..	..	..	..	..	..	..	8	10
217	3	50	1	48	..	..	..	..	..	..	2	2
230	2	4	1	3	..	..	..	..	..	..	1	1
233	1	1	..	..	..	..	..	..	..	..	1	1
236	22	66	..	..	..	..	..	..	..	..	22	66
251	5	6	1	2	..	..	..	..	4	4	..	..
255	834	1,093	..	..	..	..	..	..	..	..	834	1,093
262	1	4	..	..	..	..	..	..	..	..	1	4
271	3	4	..	..	..	..	..	..	..	..	3	4
272	1	1	..	..	..	..	..	..	..	..	1	1
273	944	1,166	..	..	..	..	..	..	..	..	944	1,166
274	1	1	..	..	..	..	..	..	..	..	1	1
279	2	2	..	..	..	..	..	..	..	..	2	2
280	10	26	4	17	..	..	..	..	1	1	5	8
281	9	15	..	..	..	..	..	..	..	..	9	15
282	617	695	..	..	..	..	..	..	..	..	617	695
288	451	530	..	..	..	..	..	..	..	..	451	530
289	1	1	..	..	..	..	..	..	..	..	1	1
292	1	1	..	..	..	..	..	..	..	..	1	1
303	1	5	..	..	..	..	..	..	..	..	1	5
311	1,249	1,487	..	..	..	..	..	..	..	..	1,249	1,487
314	24	26	..	..	..	..	..	..	..	..	24	26
333	2	2	..	..	..	..	..	..	..	..	2	2
335	4	47	1	43	..	..	..	..	..	..	3	4
336	1	1	..	..	..	..	..	..	..	..	1	1
339	1	1	..	..	..	..	..	..	..	..	1	1
343	2	2	..	..	..	..	..	..	..	..	2	2
350	384	535	..	..	..	..	..	..	..	..	384	535
356	1	1	..	..	..	..	..	..	..	..	1	1
362	6	92	3	88	..	..	..	..	..	..	3	4
365	19	31	1	8	..	..	..	..	..	..	18	23
369	895	1,072	1	11	..	..	..	..	..	..	894	1,061
378	4	5	..	..	..	..	..	..	..	..	4	5
384	5	80	2	68	..	..	..	..	..	..	3	12
388	6	8	..	..	..	..	..	..	..	..	6	8
392	11	16	..	..	..	..	..	..	..	..	11	16
393	171	198	..	..	..	..	..	..	..	..	171	198
399	1	2	..	..	..	..	..	..	..	..	1	2

APPENDIX TO CHAPTER IV—contd.

Industries showing number of industrial units and persons employed by kind of power used and no power—BILASPUR DISTRICT

ISIC Minor Group	No. of units	No. of persons employed	Power used								No power	
			Electricity		Liquid fuel		Coal, wood and bagasse		Other power			
			Units	Employees	Units	Employees	Units	Employees	Units	Employees	Units	Employees
1	2	3	4	5	6	7	8	9	10	11	12	13
200	1,025	1,160	8	10	6	12	..	..	1,011	1,138	..	..
202	3	3	..	..	2	2	..	..	..	..	1	1
205	1	2	..	..	..	..	..	..	..	..	1	2
207	28	34	..	..	..	..	..	..	28	34	..	..
230	13	14	..	..	1	2	..	..	6	6	6	6
233	2	2	..	..	..	..	..	..	..	..	2	2
236	13	15	..	..	..	..	..	..	..	..	13	15
237	1	1	..	..	..	..	..	..	..	..	1	1
239	1	4	..	..	..	..	..	..	..	..	1	4
244	2	2	..	..	..	..	..	..	..	..	2	2
251	1	1	..	..	..	..	..	..	..	..	1	1
255	109	166	..	..	..	..	..	..	..	..	109	166
270	2	2	..	..	..	..	..	..	..	..	2	2
271	2	2	..	..	..	..	..	..	..	..	2	2
272	2	2	..	..	..	..	..	..	..	..	2	2
273	373	441	..	..	..	..	..	..	..	..	373	441
279	1	1	..	..	..	..	..	..	..	..	1	1
280	4	6	..	..	..	..	..	..	..	..	4	6
281	12	13	..	..	..	..	..	..	..	..	12	13
282	137	180	..	..	..	..	..	..	..	..	137	180
288	66	85	..	..	..	..	..	..	..	..	66	85
310	1	1	..	..	..	..	..	..	..	..	1	1
311	562	696	..	..	..	..	..	..	..	..	562	696
314	4	5	..	..	..	..	..	..	..	..	4	5
333	3	4	..	..	..	..	..	..	..	..	3	4
335	1	1	..	..	..	..	..	..	..	..	1	1
343	1	1	..	..	..	..	..	..	..	..	1	1
350	100	168	..	..	..	..	..	..	..	..	100	168
365	4	4	..	..	..	..	..	..	..	..	4	4
369	449	566	..	..	..	..	..	..	..	..	449	566
378	3	3	..	..	..	..	..	..	..	..	3	3
384	3	37	1	35	..	..	..	..	..	..	2	2
388	4	4	..	..	..	..	..	..	..	..	4	4
392	3	4	..	..	..	..	..	..	..	..	3	4
393	73	101	..	..	..	..	..	..	..	..	73	101

APPENDIX TO CHAPTER IV—contd.

Industries showing number of industrial units and persons employed by kind of power used and no power—MAHASU DISTRICT

ISIC Minor Group	No. of units	No. of persons employed	Power used								No power	
			Electricity		Liquid fuel		Coal, wood and bagasse		Other power			
			Units	Employees	Units	Employees	Units	Employees	Units	Employees	Units	Employees
1	2	3	4	5	6	7	8	9	10	11	12	13
200	4,843	4,883	2	5	4	6	..	..	4,837	4,872	..	..
205	7	22	..	..	..	..	..	..	..	..	7	22
207	27	31	2	5	1	2	..	..	24	24	..	..
210	4	1,030	4	1,030	..	..	..	..	..	..	..	..
214	3	16	1	10	..	..	..	..	..	..	2	6
230	3	3	..	..	..	..	..	..	..	..	3	3
236	28	38	..	..	..	..	..	..	..	..	28	38
244	2	2	..	..	..	..	..	..	..	..	2	2
255	820	1,107	..	..	..	..	..	..	..	..	820	1,107
270	1	5	1	5	..	..	..	..	..	..	..	..
271	6	12	2	5	..	..	..	..	..	..	4	7
273	1,399	1,683	..	..	..	..	..	..	..	..	1,399	1,683
279	1	1	..	..	..	..	..	..	..	..	1	1
280	10	41	3	16	5	22	..	..	..	..	2	3
281	3	3	..	..	..	..	..	..	..	..	3	3
282	756	895	..	..	..	..	..	..	..	..	756	895
284	2	8	1	7	..	..	..	..	..	..	1	1
287	2	184	1	182	..	..	..	..	..	..	1	2
288	441	607	..	..	..	..	..	..	..	..	441	607
302	3	9	3	9	..	..	..	..	..	..	..	..
311	839	1,120	..	..	..	..	..	..	..	..	839	1,120
314	5	5	..	..	..	..	..	..	..	..	5	5
335	1	1	..	..	..	..	..	..	..	..	1	1
336	1	5	..	..	..	..	..	..	..	..	1	5
337	1	22	1	22	..	..	..	..	..	..	..	..
350	104	146	..	..	..	..	..	..	..	..	104	146
362	2	2	..	..	..	..	..	..	..	..	2	2
365	23	51	2	13	..	..	..	..	..	..	21	38
368	5	5	..	..	..	..	..	..	..	..	5	5
369	667	849	..	..	..	..	..	..	..	..	667	849
372	3	165	3	165	..	..	..	..	..	..	..	..
378	8	12	..	..	..	..	..	..	..	..	8	12
384	5	157	4	155	..	..	..	..	..	..	1	2
388	9	11	..	..	..	..	..	..	..	..	9	11
389	1	1	..	..	..	..	..	..	..	..	1	1
391	1	35	1	35	..	..	..	..	..	..	..	..
392	11	11	..	..	..	..	..	..	..	..	11	11
393	212	267	..	..	..	..	..	..	..	..	212	267
399	2	2	..	..	..	..	..	..	..	..	2	2

APPENDIX TO CHAPTER IV—contd.

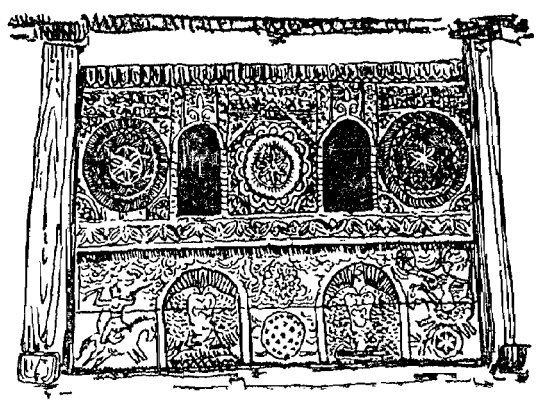
Industries showing number of industrial units and persons employed by kind of power used and no power—SIRMUR DISTRICT

ISIC Minor Group	No. of units	No. of persons employed	Power used								No power	
			Electricity		Liquid fuel		Coal, wood and bagasse		Other power			
			Units	Employees	Units	Employees	Units	Employees	Units	Employees	Units	Employees
1	2	3	4	5	6	7	8	9	10	11	12	13
200	1,476	1,503	6	12	3	12	..	..	1,467	1,479	..	..
201	1	20	1	20	..	..	..	..	..	..	..	..
205	5	8	..	..	..	..	..	..	..	..	5	8
206	1	1	..	..	..	..	..	..	..	..	1	1
207	48	51	3	4	..	..	..	..	45	47	..	..
210	1	4	..	..	..	..	..	..	..	..	1	4
214	2	3	..	..	..	..	..	..	..	..	2	3
236	2	7	..	..	..	..	..	..	..	..	2	7
239	2	2	..	..	..	..	..	..	..	..	2	2
255	175	196	..	..	..	..	..	..	..	..	175	196
262	1	6	..	..	..	..	1	6	..	..	..	..
270	2	4	..	..	..	..	..	..	..	..	2	4
271	1	8	..	..	..	..	..	..	..	..	1	8
273	667	759	..	..	..	..	..	..	..	..	667	759
278	1	2	..	..	..	..	..	..	..	..	1	2
280	4	5	..	..	1	2	..	..	..	..	3	3
281	2	2	..	..	..	..	..	..	..	..	2	2
282	309	371	..	..	..	..	..	..	..	..	309	371
284	4	4	..	..	..	..	..	..	..	..	4	4
288	292	400	..	..	..	..	..	..	..	..	292	400
302	1	1	..	..	..	..	..	..	..	..	1	1
311	668	874	..	..	..	..	..	..	..	..	668	874
333	2	3	..	..	..	..	..	..	..	..	2	3
337	1	100	1	100	..	..	..	..	..	..	..	..
340	2	46	..	..	..	..	..	..	..	..	2	46
342	2	2	..	..	..	..	..	..	..	..	2	2
343	1	1	..	..	..	..	..	..	..	..	1	1
350	69	102	..	..	..	..	..	..	..	..	69	102
356	1	1	..	..	..	..	..	..	..	..	1	1
362	4	5	..	..	..	..	..	..	..	..	4	5
365	8	24	1	15	..	..	..	..	..	..	7	9
368	9	10	..	..	..	..	..	..	..	..	9	10
369	364	914	1	465	..	..	..	..	..	..	363	449
378	1	1	..	..	..	..	..	..	..	..	1	1
384	2	19	1	18	..	..	..	..	..	..	1	1
388	5	8	..	..	..	..	..	..	..	..	5	8
392	3	4	..	..	..	..	..	..	..	..	3	4
393	88	104	..	..	..	..	..	..	..	..	88	104

APPENDIX TO CHAPTER IV—concld.

Industries showing number of industrial units and persons employed by kind of power used and no power—KINNAUR DISTRICT

ISIC Minor Group	No. of units	No. of persons employed	Power used								No power	
			Electricity		Liquid fuel		Coal, wood and bagasse		Other power			
			Units	Employees	Units	Employees	Units	Employees	Units	Employees	Units	Employees
	2	3	4	5	6	7	8	9	10	11	12	13
209	823	833	..	..	..	..	..	..	823	833	..	..
233	1	1	..	..	..	..	..	..	..	..	1	1
244	1	1	..	..	..	..	..	..	..	..	1	1
251	1	1	..	..	..	..	..	..	..	..	1	1
255	749	1,105	..	..	..	..	..	..	..	..	749	1,105
271	2	2	..	..	..	..	..	..	..	..	2	2
273	95	128	..	..	..	..	..	..	..	..	95	128
280	16	18	..	..	..	..	..	..	..	..	16	18
281	3	3	..	..	..	..	..	..	..	..	3	3
282	121	148	..	..	..	..	..	..	..	..	121	148
288	2	2	..	..	..	..	..	..	..	..	2	2
311	17	21	..	..	..	..	..	..	..	..	17	21
314	2	2	..	..	..	..	..	..	..	..	2	2
343	2	2	..	..	..	..	..	..	..	..	2	2
350	30	46	..	..	..	..	..	..	..	..	30	46
365	3	5	..	..	..	..	..	..	..	..	3	5
369	112	165	..	..	..	..	..	..	..	..	112	165
393	16	22	..	..	..	..	..	..	..	..	16	22



CHAPTER V

MATERIAL OF WALL AND ROOF

In Chapter III tenure status of Census Households has been examined. In this Chapter the material of wall and roof of Census Houses occupied by Census Households will be discussed, the main table is E-IV, compiled on the basis of 20 per cent sample. The sample Census Households accounted for in Table E-IV are the same as in Table E-II. In both the cases the Census Houses used by Census Households as dwellings, shop-cum-dwellings, workshop-cum-dwellings and dwellings with other uses have been taken into account for purposes of marking the sample. Description of Census Houses by material of wall and roof was recorded in columns 9 and 10 of the House-lists. Instructions to house-listers for recording the entries about description of Census Houses were—

Column 9—Material of wall:—"Under this column the material out of which most of the walls of the house are made i.e., grass, leaves, reeds, bamboo, unburnt bricks, mud, burnt bricks, stones, cement concrete or timber should be written. Where a house consists of separate structures each of different materials, the material out of which the walls of the main bed rooms are made are to be recorded."

Column 10—Material of roof:—"The material out of which most of the outer roof exposed to the weather and not the ceiling is made, i.e., tiles, thatch, corrugated iron, zinc or asbestos cement sheets or concrete etc., should be written. In the case of multi-storeyed building the intermediate floor or floors will be the roof of the lower floor."

At the time of tabulation the materials of wall and roof were classified as below in different groups or categories:—

Material of Wall

(1) Grass, leaves, reeds or bamboo.
(2) Timber.
(3) Mud.
(4) Unburnt bricks.
(5) Burnt bricks.
(6) C.I. sheets or other metal sheets.
(7) Stone.
(8) Cement concrete.
(9) All other material.

Material of Roof

(1) Grass, leaves, reeds, thatch, wood or bamboo.
(2) Tiles, slate, shingle.
(3) Corrugated iron, zinc or other metal sheets.
(4) Asbestos cement sheets.
(5) Brick and lime.
(6) Concrete and stone slabs.
(7) All other material.

In reference to the above categories of material of wall and roof the Table E-IV has been prepared for the Pradesh, districts, tehsils/sub-tehsils/sub-divisions for rural and urban areas separately.

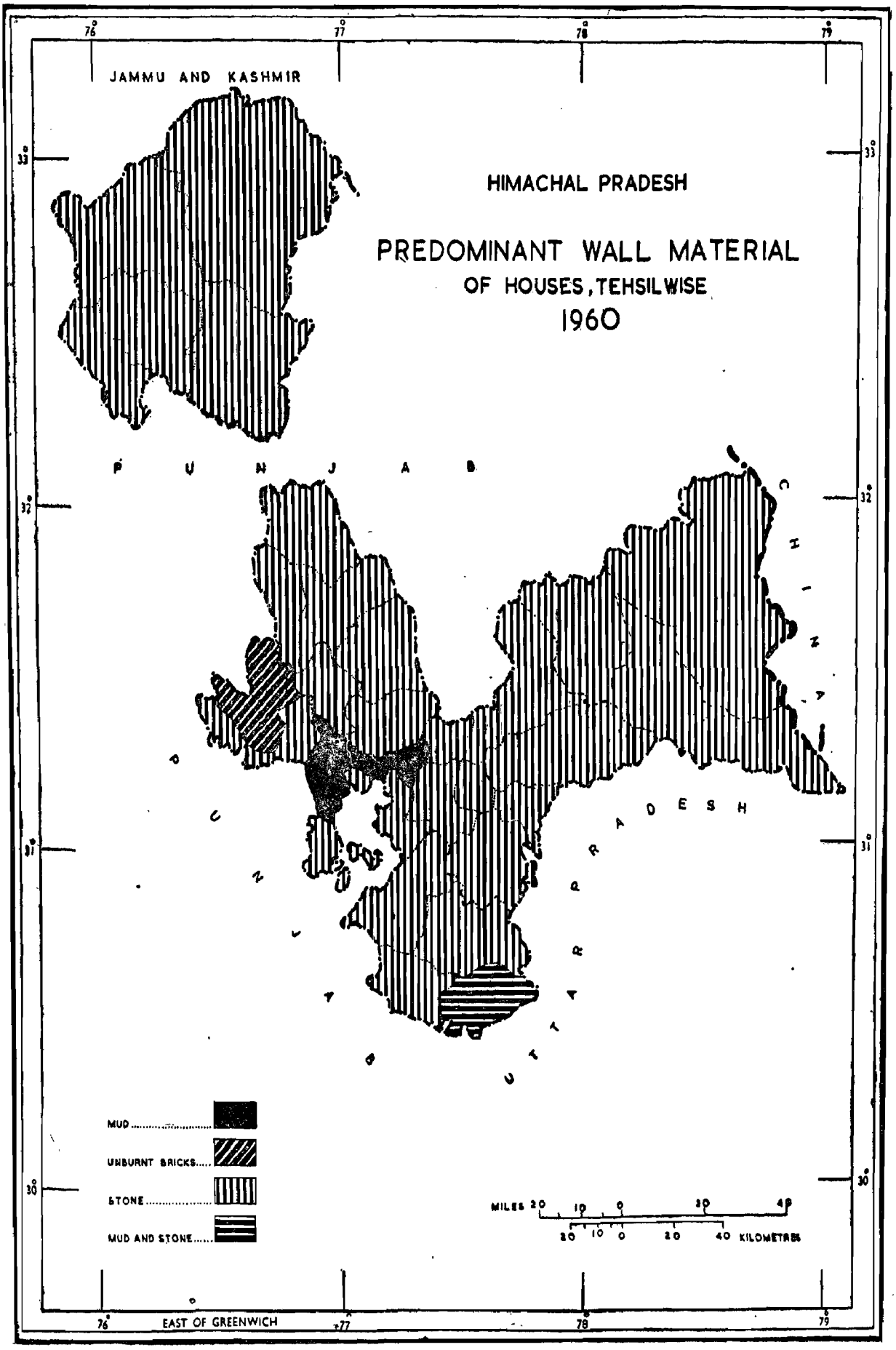
Two Subsidiary Tables E-IV.1 and E-IV.2 showing distribution of 1,000 Census Households living in Census Houses used wholly or partly as dwellings by predominant material of wall and roof respectively have also been prepared for facility of comparative study.

Distribution of census houses used as dwellings by material of wall—material in order of importance

In the Statement V-1 is shown distribution of 1,000 Census Houses used wholly or partly as dwellings by material of wall, arranged in the order of predominant material of wall for the Pradesh for comparative study with the districts.

In the Pradesh out of 1,000 dwellings of all kinds, as revealed in the Statement V-1, stone has been used in 800 dwellings, mud in 119, unburnt bricks in 51, timber in 13, burnt bricks in 11, cement concrete in 2, C.I. sheets, or other metal sheets in 2, grass leaves, reeds or bamboo and all other material in 1 each.

L/B(N)148COHP—8(a)


JAMMU AND KASHMIR
HIMACHAL PRADESH
PREDOMINANT WALL MATERIAL
OF HOUSES, TEHSILWISE
1960
PUNJAB
UTTAR PRADESH
MUD
UNBURNT BRICKS
STONE
MUD AND STONE
MILES 20 10 0 20 40
20 10 0 20 40 KILOMETRES
EAST OF GREENWICH
76° 77° 78° 79°
33° 32° 31° 30°

STATEMENT V-1

Distribution of 1,000 Census Houses used wholly or partly as dwellings by material of wall

Union Territory/ District		Stone	Mud	Unburnt bricks	Timber	Burnt bricks	Cement concrete	C.I. sheets or other metal sheets	Grass, leaves, reeds or bamboo	All other material
1		2	3	4	5	6	7	8	9	10
HIMACHAL PRADESH										
	Total	800	119	51	13	11	2	2	1	1
	Rural	801	122	53	14	6	1	1	1	1
	Urban	790	57	2	7	118	17	8	1	0
Chamba										
	Total	942	50	0	8	0	N	0	N	0
	Rural	939	52	0	8	0	N	0	1	0
	Urban	991	0	0	6	0	3	0	0	0
Mandi										
	Total	863	99	13	16	3	4	1	N	1
	Rural	858	106	14	16	3	1	1	N	1
	Urban	947	1	0	8	1	42	1	0	0
Bilaspur										
	Total	572	52	336	11	19	2	7	1	0
	Rural	556	54	351	12	17	2	7	1	0
	Urban	941	0	0	3	49	7	0	0	0
Mahasu										
	Total	762	211	N	5	19	N	2	N	1
	Rural	781	210	N	4	3	N	N	1	1
	Urban	340	234	2	15	370	6	33	0	0
Sirmur										
	Total	777	153	7	34	22	1	0	6	N
	Rural	774	163	7	37	12	1	0	6	N
	Urban	806	24	9	2	153	2	0	4	0
Kinnaur										
	Rural	990	4	0	5	0	0	0		0

N=Negligible.

Stone ranks as the most important material used predominantly in the construction of walls in rural as well as urban areas of the Pradesh. In the districts, also both in rural and urban areas stone is the most important material of wall.

After stone, mud is the next important material of wall in the Pradesh. In the districts of Chamba, Mahasu, Mandi and Sirmur mud is the important material of wall after stone in their rural areas, but in Bilaspur District it is unburnt bricks and it is timber in Kinnaur District which occupy second place to stone. In terms of Pradesh urban it is the burnt bricks which is the most important material after stone. Similar is the case in the urban areas of Bilaspur, Mahasu and Sirmur Districts whereas in the districts of Chamba and Mandi timber and cement concrete respectively are the important materials of wall after stone.

Unburnt bricks stand third in the order of important materials of wall in the Pradesh total and its rural area. District-wise speaking unburnt bricks do not figure as the material of wall in Chamba and Kinnaur Districts. In Mahasu District the use of unburnt bricks is negligible. In the district of Bilaspur the use of unburnt bricks as the material of wall has been made extensively in the rural areas next to that of stone. In the districts of Mandi and Sirmur also their use is quite significant, where they rank fourth and fifth respectively in the order of predominant materials of wall.

Timber and burnt bricks in the order of importance as materials of wall stand fourth and fifth respectively in the Pradesh. The use of timber like stone has been made both in urban and rural areas of the Pradesh and the districts. Cement concrete and C.I. sheets have also been used in the construction of wall in the Pradesh but more predominantly in the urban areas where they are more easily available. The remaining two categories of wall material need no comments excepting that use of grass, leaves, reeds or bamboo as material of wall is more in the district of Sirmur as compared with other districts.

The following Statement V-2 gives distribution of 1,000 Census Houses used wholly or partly as dwellings by material of wall for States and Union Territories.

STATEMENT V-2

Distribution of 1,000 *Census Houses used wholly or partly as dwellings by material of wall — (State/Union Territories)*

States/Union Territories		Grass, leaves, reeds or bamboo	Timber	Mud	Unburnt bricks	Burnt bricks	C.I. sheets or other metal sheets	Stone	Cement concrete	All other material
1		2	3	4	5	6	7	8	9	10
STATES										
Andhra Pradesh	Rural	78	2	647	0	100	N	172	1	N
	Urban	69	1	398	0	383	N	143	5	1
Assam	Rural	875	22	25	2	26	8	1	16	25
	Urban	579	63	51	10	64	54	2	107	70
Bihar	Rural	225	3	663	7	99	1	2	N	N
	Urban	88	6	289	30	579	3	3	1	1
Gujarat	Rural	172	5	436	25	194	3	159	3	3
	Urban	32	10	80	16	620	13	214	12	3
Jammu & Kashmir	Rural	2	48	162	247	114	N	423	N	4
	Urban	N	32	47	158	529	2	222	1	9
Kerala	Rural	161	39	304	156	43	N	296	N	1
	Urban	144	56	120	177	64	N	439	N	N
Madhya Pradesh	Rural	75	66	666	67	28	1	90	N	7
	Urban	38	22	266	177	362	5	118	6	6
Madras	Rural	9	2	742	22	144	5	68	1	7
	Urban	12	1	385	31	481	2	76	6	6
Maharashtra	Rural	158	4	357	81	73	3	312	3	9
	Urban	89	21	113	37	506	60	98	67	9
Mysore	Rural	74	N	499	20	47	1	354	2	3
	Urban	72	1	335	26	329	2	222	8	5
Orissa	Rural	137	28	753	23	45	N	12	1	1
	Urban	72	22	441	24	351	9	40	34	7
Punjab	Rural	6	1	62	589	300	1	41	N	N
	Urban	4	9	16	112	827	3	22	5	2

STATEMENT V-2—concld.

Distribution of 1,000 Census Houses used wholly or partly as dwellings by material of wall — (States/Union Territories)—concld.

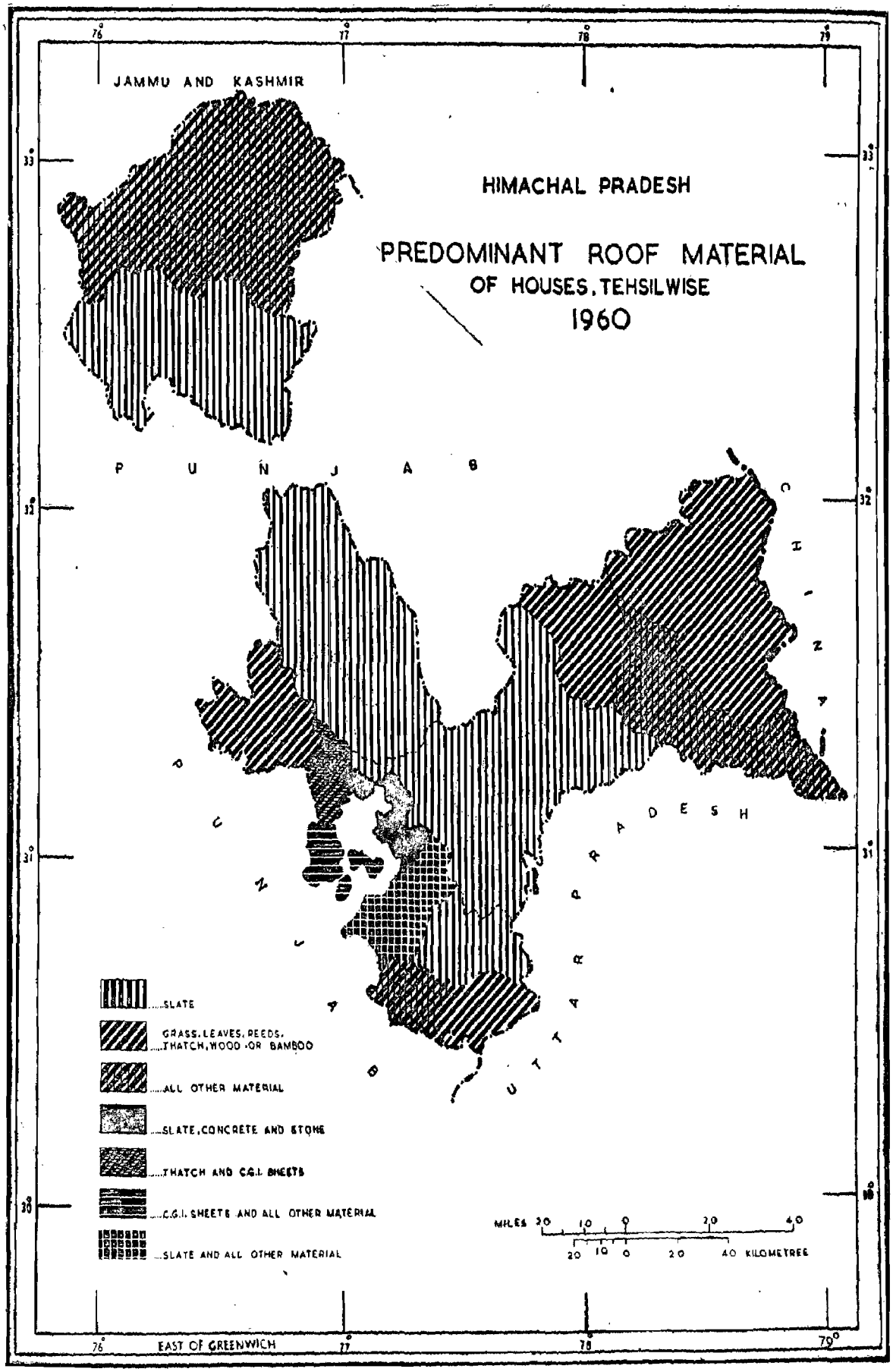
States/Union Territories		Grass, leaves, reeds or bamboo	Timber	Mud	Unburnt bricks	Burnt bricks	C.I. sheets or other metal sheets	Stones	Cement concrete	All other material
1		2	3	4	5	6	7	8	9	10
STATES—*concld.*										
Rajasthan	Rural	29	15	379	179	43	1	354	N	N
	Urban	9	1	116	78	152	1	641	2	N
Uttar Pradesh	Rural	18	3	744	100	92	N	41	N	2
	Urban	6	2	214	41	713	1	19	3	1
West Bengal	Rural	189	10	705	2	80	5	2	2	5
	Urban	106	12	183	1	657	30	2	7	2
UNION TERRITORIES AND OTHER AREAS										
Andaman & Nicobar Islands	Rural	767	222	0	N	3	2	3	3	N
	Urban	39	924	0	0	32	3	0	2	0
Dadra & Nagar Haveli	Rural	975	0	0	0	21	1	0	3	N
Delhi	Rural	5	1	277	85	588	0	36	2	6
	Urban	9	20	72	33	780	2	17	49	18
HIMACHAL PRADESH										
	Rural	1	14	122	53	6	1	801	1	1
	Urban	1	7	57	2	118	8	790	17	0
Laccadive, Minicoy and Amindivi Islands	Rural	57	0	0	0	0	0	943	0	0
Manipur	Rural	872	82	23	N	2	2	N	1	18
	Urban	890	9	2	0	88	8	0	1	2
Nagaland	Rural	944	32	10	0	N	11	1	2	N
	Urban	614	55	53	5	18	129	0	121	5
N.E.F.A.	Rural	828	121	0	0	0	10	0	40	1
Pondicherry	Rural	14	N	711	9	235	N	29	2	N
	Urban	34	0	259	36	604	0	60	1	6
SIKKIM	Rural	461	151	101	2	2	2	276	3	2
	Urban	287	462	22	0	0	29	105	79	16
Tripura	Rural	878	2	111	N	5	4	0	N	0
	Urban	852	4	25	0	78	34	0	7	0

N=Negligible.

It will be observed from the Statement V-2 that in the rural areas grass, leaves, reeds or bamboo is the most predominant material of wall in Dadra and Nagar Haveli and the least used material in Himachal Pradesh in every thousand Census Houses as compared to other States and Union Territories. In the urban areas the most predominant use of this material has been registered in Manipur. It may be of interest to note that this material is used for the construction of walls in all the States and Union Territories. The use of timber is quite significant in Andaman & Nicobar Islands.

Mud is the most predominant material of wall as compared to other materials in the rural areas of all the States except Assam, Jammu and Kashmir, and Punjab. In the rural areas of Union Territory Pondicherry also, the use of mud is quite extensive.

The use of unburnt bricks as compared to other materials is the highest in the rural areas of Punjab. The use of burnt bricks is greater in urban areas all over India, and very considerable in rural areas of Punjab, Delhi and Pondicherry. The use of stone ranks at the top in the rural area of Laccadive, Minicoy


JAMMU AND KASHMIR
HIMACHAL PRADESH
PREDOMINANT ROOF MATERIAL
OF HOUSES, TEHSILWISE
1960
P U N J A B
U T T A R P R A D E S H
.....SLATE
.....GRASS, LEAVES, REEDS, THATCH, WOOD OR BAMBOO
.....ALL OTHER MATERIAL
.....SLATE, CONCRETE AND STONE
.....THATCH AND C.G.I. SHEETS
.....C.G.I. SHEETS AND ALL OTHER MATERIAL
.....SLATE AND ALL OTHER MATERIAL
MILES 20 10 0 20 40
20 10 0 20 40 KILOMETRES
EAST OF GREENWICH
76° 77° 78° 79°
33° 32° 31° 30°

and Amindivi Islands followed by Himachal Pradesh. Out of the remaining materials of wall cement concrete has noticeable use in Assam and Nagaland.

Distribution of Census Houses used as dwellings by material of roof — material in order of importance

In the Statement V-3 is shown distribution of 1,000 Census Houses used wholly or partly as dwellings by material of roof, arranged in order of predominant material for the Pradesh for comparative study with the districts. As already stated earlier in this Chapter the various materials used for roofing have been classified into seven groups or categories in tabulation, and excepting for asbestos cement sheets each of the remaining six groups account for more than one type of the material used. Out of the seven groups or categories of materials of roof the group of tiles, slate, shingle has figured at the top in the Pradesh. Out of 1,000 Census Houses in the Pradesh rural, this group accounts for 536 and similarly in the Pradesh urban 428. In this group the most predominant use is that of slate. In the rural and urban areas of Mandi District this group of tiles, slate, shingle is at the top. In Mahasu and Sirmur Districts the materials of this group are predominantly used in rural areas only. In Chamba urban too this group has been primarily used.

After the group of tiles, slate and shingle it is the group of grass, leaves, reeds, thatch, wood or bamboo that ranks as the second important group of roofing materials in the Pradesh rural, in rural and urban areas of Mandi District and in the rural areas of Mahasu, Sirmur and Kinnaur Districts. In Bilaspur District this group of materials ranks at the top in the district as a whole and in its rural areas. In Chamba District the ranking

STATEMENT V-3

Distribution of 1,000 Census Houses used wholly or partly as dwellings by material of roof

Union Territory/ Districts		Tiles, slate, shingle	Grass, leaves, reeds, thatch, wood or bamboo	All other material	Corrugated iron, zinc or other metal sheets	Concrete and stone slabs	Asbestos cement sheets	Brick and lime
1		2	3	4	5	6	7	8
HIMACHAL PRADESH	**Total**	**530**	**248**	**122**	**71**	**24**	**5**	**N**
	Rural	**536**	**256**	**122**	**61**	**25**	**N**	**N**
	Urban	**428**	**112**	**98**	**256**	**8**	**99**	**4**
Chamba	Total	402	188	389	18	1	2	N
	Rural	381	196	405	16	1	N	1
	Urban	904	0	0	67	0	29	0
Mandi	Total	752	200	6	41	1	N	0
	Rural	749	204	6	40	1	N	0
	Urban	807	140	N	50	0	3	0
Bilaspur	Total	280	582	17	114	2	5	0
	Rural	290	594	17	96	3	N	0
	Urban	36	313	3	528	0	120	0
Mahasu	Total	591	125	66	123	85	9	1
	Rural	612	127	67	105	89	N	N
	Urban	130	80	51	518	15	191	15
Sirmur	Total	440	248	223	65	9	15	N
	Rural	473	263	206	48	9	1	N
	Urban	24	53	437	287	0	197	2
Kinnaur	Rural	82	611	299	7	1	0	0

NOTE:—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of figures of total, rural and urban areas separately per thousand.

order of the group is third in the district as a whole and in the rural areas. It may be of interest to note that use of grass, leaves, reeds, thatch, wood or bamboo for roofing has not been made in the urban areas of Chamba, whereas their use in the urban areas of the other four districts is quite significant.

The category of 'all other material' which comprises of mud or mud mixed with grass, pebbles ranks third in importance by its use as the roofing material in the Pradesh total and rural. In Chamba District rural and Kinnaur District it is the second most important roofing material. Amongst the urban areas of the districts, no use is made of this roofing material in Chamba urban, whereas in Sirmur urban it has been used in as many as 437 Census Houses out of every thousand — the highest use registered amongst the urban areas. In Sirmur rural also the use is very extensive, ranking third in importance.

Corrugated iron, zinc or other metal sheets have been used for roofing in all the districts registering very high incidence per thousand Census Houses in urban areas as compared with the rural areas. Out of all the types of roofing material used in the urban areas, use of C.I. sheets is the highest in the urban areas of Bilaspur, Mahasu, the second highest in the towns of Chamba and Sirmur Districts.

Concrete and stone slabs rank fifth, asbestos cement sheets sixth and brick and lime as the last in the categories of the roofing material by their use in the Pradesh. It may be of interest to note that asbestos cement sheets are more in use in the urban areas of the districts.

In Statement V-4 is shown the distribution of 1,000 Census Houses used wholly or partly as dwellings by material of roof for the States and Union Territories, for purpose of comparison.

STATEMENT V-4

Distribution of 1,000 *Census Houses used wholly or partly as dwellings by material of roof — (States/Union Territories)*

States/Union Territories		Grass, leaves, reeds, thatch, wood or bamboo	Tile, slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Concrete and stone slabs	All other material
1		2	3	4	5	6	7	8
STATES								
Andhra Pradesh	Rural	627	201	4	1	21	15	131
	Urban	372	336	27	9	120	47	89
Assam	Rural	847	N	119	9	1	1	23
	Urban	373	16	561	15	12	5	18
Bihar	Rural	446	522	8	1	22	1	N
	Urban	125	524	41	21	283	6	N
Gujarat	Rural	104	735	147	2	N	10	2
	Urban	92	430	299	14	2	159	4
Jammu & Kashmir	Rural	889	15	16	N	3	N	77
	Urban	485	218	187	2	52	25	31
Kerala	Rural	770	219	6	5	N	N	N
	Urban	567	427	1	N	N	5	0
Madhya Pradesh	Rural	123	800	24	4	4	23	22
	Urban	60	564	161	49	23	127	16
Madras	Rural	664	276	12	1	22	19	6
	Urban	325	481	27	5	109	46	7
Maharashtra	Rural	322	388	180	1	2	21	86
	Urban	117	387	244	16	29	167	40
Mysore	Rural	294	321	19	1	N	39	326
	Urban	124	490	55	6	3	127	195
Orissa	Rural	837	149	9	1	1	2	1
	Urban	495	240	96	32	25	95	17
Punjab	Rural	857	63	8	3	55	14	N
	Urban	623	75	30	5	169	94	4

NOTE:—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of figures of total, rural and urban areas separately per thousand.

STATEMENT V-4—*concld.*

Distribution of 1,000 *Census Houses used wholly or partly as dwellings by material of roof — (States/Union Territories)*—concld.

States/Union Territories		Grass, leaves, reeds, thatch, wood or bamboo	Tile slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Concrete and stone slabs	All other material
1		2	3	4	5	6	7	8
STATES—*concld.*								
Rajasthan	Rural	400	402	18	1	15	162	2
	Urban	137	118	70	7	38	625	5
Uttar Pradesh	Rural	206	370	5	N	22	6	391
	Urban	66	209	32	8	285	179	221
West Bengal	Rural	716	120	111	5	21	22	5
	Urban	81	333	193	26	130	234	3
UNION TERRITORIES AND OTHER AREAS								
Andaman & Nicobar Islands	Rural	765	32	196	7	0	0	0
	Rural	146	115	715	8	14	2	0
Dadra & Nagar Haveli	Rural	601	394	3	1	0	0	1
Delhi	Rural	604	6	55	3	196	115	21
	Urban	207	29	143	24	135	435	27
HIMACHAL PRADESH	**Rural**	**256**	**536**	**61**	**N**	**N**	**25**	**122**
	Urban	**112**	**428**	**256**	**99**	**4**	**3**	**98**
Laccadive, Minicoy and Amindivi Islands	Rural	863	105	32	0	0	0	0
Manipur	Rural	954	1	43	N	N	N	2
	Urban	673	N	300	5	2	18	2
Nagaland	Rural	925	2	71	0	0	2	0
	Urban	374	0	592	28	0	6	0
N.E.F.A.	Rural	580	0	418	2	0	0	0
Pondicherry	Rural	778	163	1	N	52	6	N
	Urban	372	354	1	1	259	13	N
SIKKIM	Rural	883	0	113	0	0	1	3
	Urban	185	0	758	0	0	57	0
Tripura	Rural	948	N	51	1	N	N	0
	Urban	619	2	340	1	25	12	1

N=Negligible.

NOTE:—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the bassis of figures of total, rural and urban areas separately per thousand.

Out of the 26 States, Union Territories and other areas listed, as many as eighteen of them have used grass, leaves, reeds, thatch, wood or bamboo in more than 50 per cent of their dwellings as roofing material in rural areas, the highest incidence of use having been registered in Manipur. In the urban areas of Kerala, Punjab, Manipur and Tripura the use of grass, leaves, reeds, thatch, wood or bamboo as roofing material is also very high i.e., in more than 50 per cent of the dwellings there.

Out of all roofing material the highest use has been made of tiles, slate and shingle in the rural areas of Bihar, Gujarat, Madhya Pradesh, Maharashtra, Rajasthan and Himachal Pradesh, and similar highest use of the same has been registered in the urban areas of Bihar, Gujarat, Madhya Pradesh, Madras, Maharashtra, Mysore, West Bengal and Himachal Pradesh. In the States, Union Territories and other areas having urban areas, but for Kerala and Pondicherry, the use of corrugated iron, zinc or other metal sheets has been registered more in their urban dwellings as compared to the rural ones. Sikkim and Nagaland are the leaders here.

The highest use of asbestos cement sheets as roofing material in 1,000 Census Houses as dwellings has been recorded in Himachal Pradesh urban followed by Madhya Pradesh. Similarly highest use of brick and lime has been recorded in West Bengal urban followed by Bihar urban, and that of concrete and

stone slabs in Rajasthan urban followed by Delhi urban. The use of 'all other material' is very extensive in Uttar Pradesh, Mysore, Andhra Pradesh and Himachal Pradesh both in their rural and urban areas.

Local availability of material of wall and roof

The predominant material of wall and roof for the construction of a house should be procurable as near as possible and easily at the site of construction, otherwise the cost of the building would be, prohibitive. The rich can afford to import the building material when he wants to construct his house of uncommon material to lend charm and elegance to the building and thereby make a display of his wealth and prosperity. The use of burnt bricks or cement concrete as the material of wall and that of C.I. sheets or asbestos cement sheets as the material of roof by a rich man in a locality where stone as the material of wall and slate as the material of roof are most commonly used and are easily available locally is the example of a rich man's house. The poor man will always make the best use of the cheapest locally available building material for his house, and the little well-to-do person will of course make the use of the most durable material if more than one type of building material is easily available locally. If there is no choice of building material then the poor and the slightly better off will be using the only available material and the difference in their status will be apparent from the size of their houses, the slightly better off having generally more living accommodation.

In order to judge the extent of imported material for construction of building the absolute figures (20 per cent sample) taken from Table E-IV as given in the Statement V-5 may be studied.

Information was collected through the Naib Tehsildars and Tehsildars in the Pradesh about the availability of building material. Each of these revenue officers was sent a copy of the Table E-IV relating to his tehsil/subtehsil and asked to give information in the context of the building material shown as having been used in the Census Houses. The position in this respect, as obtaining in each district is given below—

Chamba District—Excepting cement, which is shown as having been used as material of wall, all other material of wall used is indigenous. Cement was imported from outside the Pradesh. Similarly for material of roof C. I. sheets and asbestos cement sheets were imported and all other material of roof was native.

Mandi District — As in Chamba District, cement used in construction of wall in Mandi District is imported from outside the Pradesh. Similarly C.I. sheets for construction of wall or for roofing are imported. Burnt bricks used in some of the houses in Jogindarnagar tehsil as wall material, as also tiles for roofing in some buildings are imported from Baijnath and Nagrota in District Kangra of Punjab. Asbestos cement sheets used for roofing like C.I. sheets are imported. Slates used for roof in Jogindarnagar and Sarkaghat Tehsils of Mandi District are obtained from Mandi Sadar Tehsil of the District. All other predominant material of wall and roof are indigenous.

Timber is used as one of the predominant material of wall in the rural areas of the district. Out of 697 dwellings in the Pradesh rural using timber, 234 are in Mandi District rural, the second highest figure after Sirmur District rural (253). In Mandi District, Chichot Tehsil leads in this.

Bilaspur District — Cement as material of wall, C.I. sheets as material of wall and roof and asbestos cement sheets for roofing are imported from outside the Pradesh. Slates for roofing are procured from Mandi District. All other predominant material of wall and roof are indigenous.

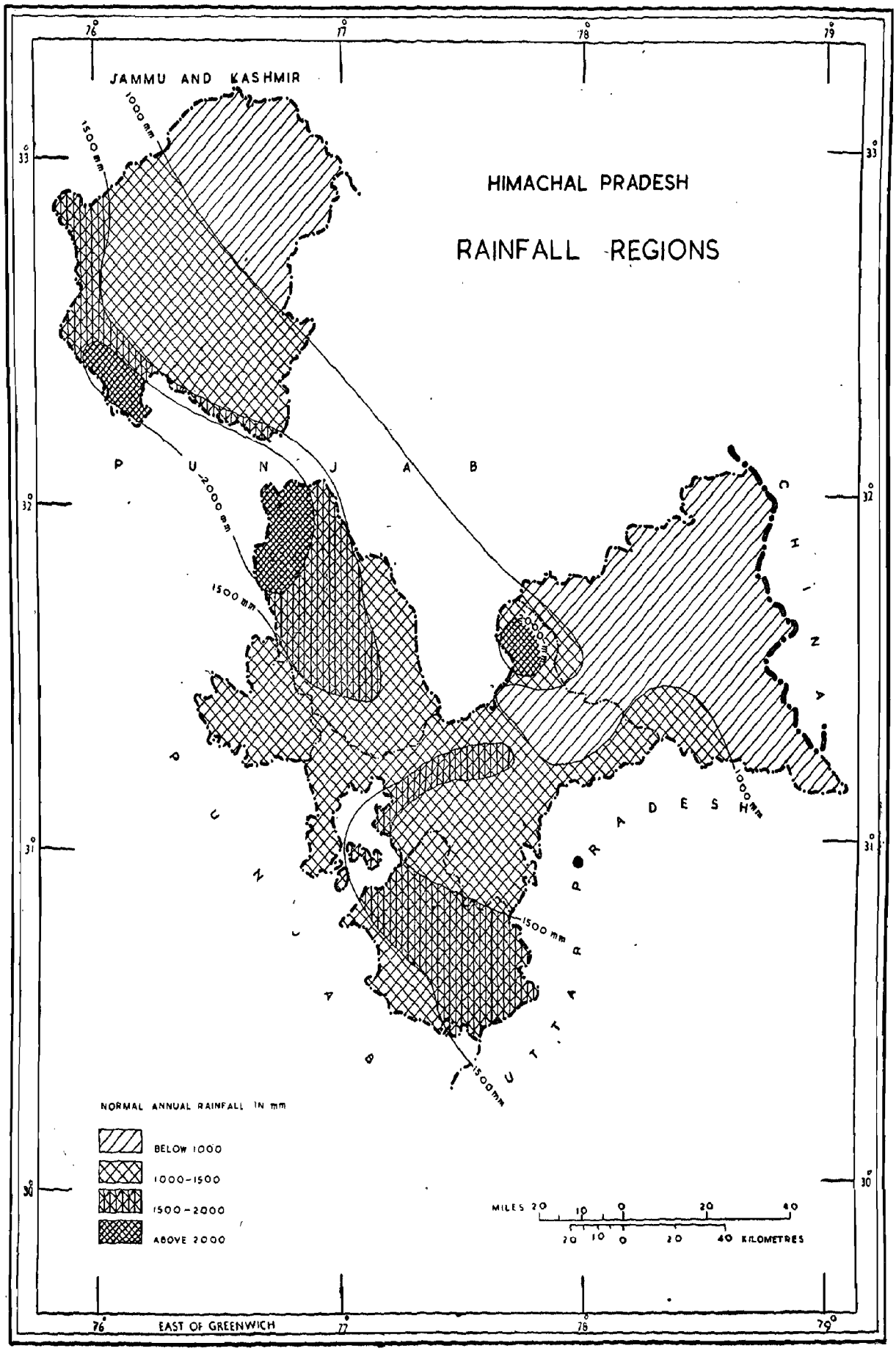
Mahasu District — Cement, burnt bricks and C.I. sheets as material of wall are imported from outside the Pradesh. Likewise C.I. sheets, asbestos cement sheets for roofing are also imported. Slates are also imported in some of the tehsils from Karsog Tehsil of Mandi district. The rest of the predominant materials of wall and roof are indigenous.

Sirmur District — Cement as material of wall and C.I. sheets and asbestos cement sheets for roofing are imported from outside the Pradesh. Burnt bricks in Nahan Tehsil of this district are also imported from Ambala in Punjab. The other predominant material of wall and roof are indigenous.

STATEMENT V-5

Distribution of sample Households living in Census Houses used wholly or partly as dwellings by predominant material of wall and predominant material of roof

Union Territory/ District	Total No. of Census Households	Material of wall									Material of roof						
		Grass, leaves, reeds or bamboo	Timber	Mud	Unburnt bricks	Burnt bricks	C.I. sheets or other metal sheets	Stone	Cement concrete	All other material	Grass, leaves, reeds, thatch, wood or bamboo	Tiles, slate, shingle	Corrugated Iron, zinc or other metal sheets	Asbestos, cement sheets	Brick and lime	Concrete & stone slabs	All other material
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
HIMACHAL PRADESH																	
Rural	**50,973**	**61**	**697**	**6,240**	**2,708**	**278**	**65**	**40,845**	**48**	**31**	**13,020**	**27,312**	**3,099**	**16**	**7**	**1,278**	**6,241**
Urban	**2,746**	**2**	**20**	**156**	**6**	**324**	**21**	**2,169**	**48**	**..**	**306**	**1,175**	**703**	**273**	**10**	**9**	**270**
Chamba District																	
Rural	8,175	4	68	425	..	..	..	7,675	3	..	1,605	3,113	127	3	4	10	3,313
Urban	342	..	2	..	..	..	..	339	1	..	..	309	23	10	..	..	..
Mandi District																	
Rural	14,247	2	234	1,511	193	38	13	12,220	22	14	2,906	10,668	574	3	..	8	88
Urban	946	..	7	1	..	1	1	896	40	..	132	763	47	3	..	..	1
Bilaspur District																	
Rural	7,016	6	81	381	2,462	122	51	3,899	14	..	4,167	2,036	673	1	..	17	122
Urban	307	..	1	..	..	15	..	289	2	..	96	11	162	37	..	..	1
Mahasu District																	
Rural	13,285	6	54	2,795	2	36	1	10,374	2	15	1,692	8,134	1,388	4	1	1,178	888
Urban	608	..	9	142	1	225	20	207	4	..	49	79	315	116	9	9	31
Sirmur District																	
Rural	6,877	41	253	1,122	51	82	..	5,319	7	2	1,811	3,249	327	5	2	64	1,419
Urban	543	2	1	13	5	83	..	438	1	..	29	13	156	107	1	..	237
Kinnaur District																	
Rural	1,373	2	7	6	..	..	..	1,358	..	..	839	112	10	..	..	1	411


JAMMU AND KASHMIR
HIMACHAL PRADESH
RAINFALL REGIONS
1000 mm
1500 mm
2000 mm
PUNJAB
HARYANA
RADESH
CHANDIGARH
NORMAL ANNUAL RAINFALL IN mm
BELOW 1000
1000-1500
1500-2000
ABOVE 2000
MILES 20 10 0 20 40
20 10 0 20 40 KILOMETRES
EAST OF GREENWICH
76°
77°
78°
79°
33°
32°
31°
30°

Kinnaur District — Excepting C.I. sheets for roofing which are imported all other predominant material of wall and roofing are indigenous.

In all C.I. sheets, asbestos cement sheets and cement as the predominant building material are imported from outside the Pradesh. Burnt bricks in Mahasu District wherever used are also imported from outside the Pradesh. In Mandi and Sirmur Districts burnt bricks are imported from outside the Pradesh at some places and in some places like Sundarnagar Tehsil in Mandi District and Paonta Tehsil in Sirmur District they are available within the Tehsils. Burnt bricks in Jogindarnagar Tehsil of Mandi District at some places are also procurable within the Tehsil. Slates are also imported in some of the tehsils from contiguous tehsils of their district and in a few cases from the contiguous tehsils of another district within the Pradesh.

Material of wall and roof — relationship with climate and rainfall

The local availability of the predominant building material is the main consideration in the construction of houses. The climate and rainfall conditions also influence, both in the style of construction and in the choice of building material which however, is subject to local availability. Wherever more than one type of building material is available locally the greatest use will be made of that material which is more durable even at a slightly higher cost. The maxim that houses are not built every day cannot be overlooked.

A note on the climate of Himachal Pradesh alongwith tables giving the rainfall and temperature data from the Deputy Director General of Observatories (Climatology and Geophysics), Poona, is reproduced here. It will help the appreciation of the deductions about the influence of climate and rainfall conditions on the building of houses.

THE CLIMATE OF HIMACHAL PRADESH

by S. K. Mallick

Deputy Director General of Observatories, Poona

"The terrain over a large part of Himachal Pradesh is mountainous with deep valleys and high ridges and peaks. The elevation generally ranges from about 500 m. (1,640 ft.) in the region adjoining the plains of Punjab and in the valleys to about 6,400 m. (21,000 ft.) in the north eastern parts of the territory. With such large variations in the topography, the climate though in general temperate, is largely dependant on elevation. The climate of the lower tracts resembles that of the plains of the Punjab, the heat in summer however being less intense.

Precipitation

There are two rainy periods during the year, one being the southwest monsoon season from July to mid-September and the other from December to March associated with the passage of western disturbances. Except for four stations (Kotkhai, Kotgarh in Mahasu District and Kilba and Nachar in Kinnaur District) for which rainfall records are available over a long period of years, the data of rainfall are meagre. Most of the rain-gauge stations started functioning only in the past few years. A statement of the monthly and annual normal rainfall, and the highest rainfall recorded in 24 hours, is given in Table 1. There are large variations in the annual rainfall from place to place. While it may be noticed that in general, the annual rainfall increases from the southwest to the northeast and then decreases rapidly in the region of the higher elevations of the Himalayas, the variation is not uniform as the rainfall is largely affected by the local topography. In the region of the Ravi valley the rainy season is well marked and the rainfall considerable. But in the Chenab valley in the north-eastern part of Chamba District rainfall is scanty and heavy rain unusual. Excluding the region of the higher Himalayas for which rainfall records are not available, the station with the highest annual rainfall in Himachal Pradesh is Pancha in Mahasu District with an average annual rainfall of 2,433 mm. (95.79"), while Rampur in the same district has an annual rainfall of 858 mm. (33.78") only. The precipitation in the winter season is in the form of snow at higher elevations, the snow line being generally above 1,500 m. (5,000 ft.). Occasionally snow fall occurs at lower elevations also. Below about 2,100 m. (7,000 ft.) the snow lies in the ground only for short periods. But at higher elevations the snow fall is often heavy, the accumulated snow and ice melting in summer and supplying waters to the rivers. Thunderstorms occur in the summer season.

TABLE 1

Normals and extremes of rainfall

Station	No. of years of data		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual	Heaviest rainfall in 24 hours*	
																Amount (mm)	Date
CHAMBA DISTRICT																	
Chamba (Tehsil Chamba)	6	a	131·3	66·5	134·9	70·4	63·7	80·0	216·7	199·4	105·2	64·8	26·9	95·0	1254·8	157·5	1955 Oct 4
		b	7·8	3·3	7·7	5·0	5·5	5·0	11·8	12·2	6·0	3·0	1·2	4·5	73·0		
Ludrera (Tehsil Chamba)	5	a	133·3	77·5	106·7	56·4	40·1	34·3	212·6	163·3	113·0	121·4	17·3	58·7	1134·6	128·5	1955 Oct 4
		b	8·0	3·6	5·2	4·2	3·6	2·6	10·2	9·2	4·5	3·2	1·2	2·7	58·2		
Chitrari (Tehsil Chamba)	8	a	133·3	60·2	119·4	69·1	70·4	77·0	186·7	115·1	95·0	95·0	19·6	59·7	1100·5	241·3	1954 Jan 19
		b	6·3	3·9	7·5	5·4	5·7	6·0	11·1	8·3	5·6	3·6	1·0	3·3	67·7		
Bhandal (Tehsil Chaurah)	7	a	154·9	157·7	159·5	139·7	124·5	84·6	212·6	183·4	156·5	73·9	55·4	119·4	1622·1	156·0	1957 Aug 27
		b	7·7	6·2	10·2	7·6	9·1	7·0	10·9	9·1	5·1	2·6	1·7	3·7	80·9		
Chuari (Tehsil Bhattiyat)	7	a	150·1	67·1	104·9	36·3	28·2	97·5	591·8	444·0	275·8	121·7	15·5	78·0	2010·9	194·3	1955 Oct 3
		b	6·9	2·7	5·0	2·3	3·0	5·3	16·0	14·6	10·1	2·7	1·0	2·6	72·2		
Bathri (Tehsil Bhattiyat)	5	a	123·9	84·6	151·6	52·6	34·3	60·7	411·2	314·2	208·3	188·0	39·6	70·1	1739·1	284·5	1955 Oct 4
		b	8·8	2·8	6·0	2·8	3·0	3·8	14·4	11·0	8·8	4·6	1·5	4·6	72·1		
Kalatope (Tehsil Bhattiyat)	6	a	198·9	90·2	111·0	86·1	73·4	131·6	419·3	369·3	305·6	254·8	22·3	101·3	2163·8	206·0	1954 Sep 25
		b	8·6	5·0	8·2	5·3	5·5	5·8	15·2	16·3	10·3	5·8	1·2	5·0	92·2		
Brahmaur (Tehsil Brahmaur)	6	a	144·0	58·9	95·0	85·6	76·2	70·4	163·6	164·3	225·8	82·0	23·9	74·7	1264·4	120·7	1957 Sep 3
		b	9·5	3·7	6·5	5·7	5·5	6·0	10·7	11·8	10·2	3·8	1·0	5·0	79·4		
Tisa (Tehsil Chaurah)	8	a	153·2	85·1	180·6	94·7	87·1	54·6	196·9	217·7	104·9	111·0	21·8	79·0	1386·6	156·0	1955 Oct 5
		b	8·0	4·6	9·7	7·1	7·0	5·6	11·7	14·4	7·5	4·0	1·7	4·5	85·8		
Bhanauta (Tehsil Chamba)	7	a	100·6	93·7	115·3	59·2	48·3	55·6	203·5	213·9	126·7	52·3	16·5	81·5	1167·1	162·8	1956 Aug 25
		b	7·3	3·7	7·0	4·9	4·9	3·4	10·4	11·7	6·6	2·7	1·1	4·9	68·6		
MANDI DISTRICT																	
Jogindarnagar (Tehsil Jogindarnagar)	10	a	124·2	80·0	86·6	39·1	50·8	167·6	676·7	658·4	294·4	80·0	19·1	52·3	2329·2	393·7	1954 Aug 18
		b	7·7	4·2	6·5	3·3	3·5	6·4	20·4	19·7	11·7	3·8	0·7	2·9	90·8		
Sarkaghat (Tehsil Sarkaghat)	10	a	105·4	62·0	84·8	28·2	48·0	171·7	609·9	601·7	283·0	102·1	17·0	41·1	2154·9	205·7	1960 Aug 30
		b	5·2	3·7	5·1	1·6	2·3	6·9	16·7	16·2	9·2	3·0	0·4	3·3	73·6		
Chichot (Tehsil Chichot)	10	a	97·3	57·7	84·1	45·5	50·5	148·3	535·9	465·6	165·3	67·1	14·7	33·0	1765·0	228·6	1951 Aug 21
		b	6·2	3·3	6·3	3·5	3·3	8·4	18·3	17·8	9·4	3·4	0·6	2·7	83·2		
Sundarnagar (Tehsil Sundarnagar)	10	a	107·4	65·5	80·0	36·3	42·4	149·9	512·3	459·5	196·3	75·4	16·3	34·0	1775·3	245·4	1960 Aug 31
		b	7·1	3·8	5·9	3·3	3·4	6·8	18·9	17·3	10·0	3·6	0·8	2·7	83·6		
Karsog (Tehsil Karsog)	10	a	89·7	49·0	73·4	23·9	51·3	61·7	298·2	241·1	96·8	58·7	11·2	43·2	1098·2	121·9	1952 Aug 2
		b	6·4	2·8	5·5	2·3	3·5	4·7	14·3	13·2	6·2	2·9	0·3	2·6	64·7		
Bhangrotu (Tehsil Mandi Sadar)	9	a	91·2	53·6	71·9	31·7	26·7	135·9	431·0	419·9	172·2	83·8	7·4	34·0	1559·3	190·5	1960 Aug 31
		b	6·4	4·0	6·7	3·0	3·2	8·0	17·3	17·0	9·1	4·3	0·3	2·6	81·9		
Jhungi (Tehsil Chichot)	8	a	99·6	75·9	68·8	43·7	43·7	96·8	427·5	261 9	171·7	61·2	6·1	84·1	1441·0	121·9	1957 Jul 26
		b	6·9	4·1	5·9	4·5	3·9	7·7	19·3	13·1	9·0	3·6	0·4	4·0	82·4		
Janjahli (Tehsil Chichot)	6	a	46·0	56·4	156·7	66·3	95·8	155·7	461·0	265·4	180·6	165·6	11·7	111·5	1772·7	99·1	1956 Jun 4
		b	3·2	3·0	8·5	6·0	7·3	8·8	20·2	15·0	9·8	6·6	1·2	3·7	93·3		1958 Jul 15

Panjain (Tehsil Chichot) . . .	6	a	61·7	41·4	114·1	68·1	65·3	91·2	371·6	197·9	136·9	106·9	19·8	50·5	1325·4	171·5	1959 Aug 19
		b	6·0	3·0	9·2	6·7	6·7	8·8	16·7	13·8	8·0	6·3	0·8	2·7	88·7		
Kataula (Tehsil Mandi Sadar) . .	6	a	83·3	42·7	68·8	54·9	54·9	122·2	607·3	346·5	180·1	110·7	7·9	43·4	1722·7	209·5	1958 Jul 30
		b	6·0	2·6	6·0	5·0	5·2	5·2	20·2	17·2	10·7	6·6	1·2	3·7	89·6		
Mandi (Tehsil Mandi Sadar) . .	7	a	80·5	36·1	71·4	33·3	45·7	110·7	547·9	424·7	221·2	88·7	8·9	40·4	1709·5	271·1	1960 Aug 31
		b	6·2	3·0	5·2	3·8	4·0	7·3	19·8	19·0	12·7	5·0	0·5	3·4	89·9		
BILASPUR DISTRICT																	
Bilaspur (Tehsil Bilaspur Sadar) . .	7	a	66·3	19·6	69·6	14·5	19·1	101·3	414·5	306·1	223·3	103·6	8·4	27·4	1373·7		
		b	5·3	1·6	4·3	1·3	2·3	6·3	15·6	14·7	11·2	4·0	0·3	2·6	69·5		
MAHASU DISTRICT																	
Rampur (Tehsil Rampur) . .	10	a	77·0	49·5	60·5	39·6	42·9	57·7	191·8	146·6	89·1	60·7	11·7	30·5	857·6	83·8	1958 Jul 17
		b	5·6	3·4	5·2	4·0	3·7	4·3	12·5	10·1	6·3	3·6	0·6	2·5	61·8		
Rohru (Tehsil Rohru) . . .	10	a	118·6	63·5	73·1	57·4	64·0	46·7	190·5	160·8	119·1	72·9	10·4	39·4	1016·4	112·3	1955 Oct 4
		b	7·1	4·4	6·1	5·1	4·7	5·2	13·8	12·3	7·3	3·9	0·6	2·4	72·9		
Jubbal (Tehsil Jubbal) . . .	10	a	114·5	71·1	77·7	55·9	53·3	61·2	237·4	202·2	122·2	95·3	9·9	42·9	1143·6	106·7	1955 Oct 3
		b	6·3	4·3	6·2	4·9	4·3	5·1	12·4	11·8	6·6	3·7	0·6	2·1	68·3		
Chaupal (Tehsil Chaupal) . .	10	a	144·8	79·0	90·4	34·8	48·3	73·7	273·6	217·7	156·2	123·2	23·1	61·2	1326·0	124·5	1956 Oct 12
		b	8·2	5·6	6·5	3·2	4·6	5·8	15·1	14·4	7·4	3·0	0·7	4·4	78·9		
Kumharsain (Sub-tehsil Kumharsain)	10	a	85·1	49·0	83·1	44·2	62·2	74·2	282·5	151·6	112·8	60·5	16·8	18·3	1040·3	139·7	1959 Jul 7
		b	5·8	3·8	6·3	3·8	4·5	5·7	12·3	9·7	6·7	2·9	0·6	1·9	64·0		
Junga (Tehsil Kasumpti) . .	10	a	91·2	55·1	67·1	27·4	44·7	104·9	371·3	321·1	148·3	70·4	11·7	42·9	1356·1	150·0	1958 Dec 22
		b	4·8	2·6	4·8	1·9	3·3	6·3	15·8	1·6	6·9	3·0	4·4	1·4	56·8		
Kasumpti (Tehsil Kasumpti) . . .	8	a	82·0	39·4	66·8	36·1	44·2	98·0	460·3	380·0	205·0	89·4	9·7	26·7	1537·6	95·3	1954 Jul 9
		b	6·4	3·7	6·1	2·7	4·3	6·3	20·9	18·3	11·0	5·1	0·6	2·3	87·7		Aug 2
Solon (Tehsil Solon) . . .	8	a	165·1	74·4	80·3	23·4	29·5	157·0	355·1	390·1	202·4	98·0	28·7	10·4	1614·4	264·2	1951 Aug 21
		b	6·4	3·2	4·0	1·4	3·0	7·7	16·1	14·8	6·9	4·3	0·6	0·8	69·2		
Arki (Tehsil Arki)	10	a	92·2	52·6	59·2	20·8	37·3	93·2	343·4	281·9	148·6	58·4	14·5	30·7	1232·8	99·6	1954 Sep 26
		b	6·2	2·8	4·7	2·1	2·3	4·6	14·8	11·3	9·0	2·8	0·4	1·9	60·9		
Seoni (Sub-Tehsil Seoni) . . .	10	a	80·0	51·6	56·9	23·6	35·6	87·1	350·8	189·5	103·9	54·6	9·1	33·0	1075·7	119·9	1958 Jul 30
		b	5·7	3·5	4·3	2·2	2·2	5·2	15·0	10·5	6·2	3·0	0·4	2·1	60·3		
Kotkhai (Tehsil Kotkhai) . .	60	a	71·6	78·5	68·3	45·7	51·8	88·7	212·1	183·1	109·2	27·7	11·2	33·8	981·7	82·9	1914 Jul 1
		b	4·9	5·4	5·4	4·3	5·1	6·9	14·2	12·8	6·2	1·7	0·8	2·3	70·0		
Bashla (Tehsil Rohru) . . .	10	a	152·4	73·1	101·6	56·1	90·9	70·4	348·7	295·7	178·6	105·9	16·5	131·6	1621·5	254·0	1953 Dec 31
		b	7·7	4·9	8·0	5·3	6·2	5·5	16·1	15·7	9·3	4·3	0·7	2·7	86·4		
Khadrala (Tehsil Rohru) . .	10	a	217·4	103·6	121·2	70·9	88·7	89·4	384·6	326·1	181·6	84·8	14·2	249·1	1932·2	301·8	1953 Dec 31
		b	8·9	5·1	7·3	6·2	8·3	8·1	18·9	18·4	10·1	3·7	0·6	3·5	99·1		1958 Dec 26, 27

a=Normal rainfall in mm.

b=Average number of rainy days (days with rain of 2·5 mm or more)

*=Based on all available data upto

(*i*) 1960—Kinnaur, Mahasu and Mandi

(*ii*) 1958—Chamba

(*iii*) 1957—Sirmur

TABLE 1—*concld.*

Normals and extremes of rainfall—concld.

Station	No. of years of data		Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual	Heaviest rainfall in 24 hours*	
																Amount (mm)	Date
MAHASU DISTRICT—*concld.*																	
Shilaru (Tehsil Theog)	10	a	189·7	79·0	107·4	51·6	68·8	103·9	450·9	279·4	206·0	94·5	8·1	42·9	1682·2	228·6	1959 Jan 29
		b	6·1	4·5	7·3	3·9	4·5	6·5	19·5	14·7	10·6	5·4	0·3	2·6	85·9		
Parala (Tehsil Theog)	9	a	106·7	56·1	61·7	29·0	44·7	75·9	273·3	225·0	116·3	80·0	7·9	33·0	1109·6	119·4	1957 Jul 26
		b	6·7	4·3	5·3	2·3	3·6	4·6	14·0	12·3	7·3	3·7	0·3	2·0	66·4		
Kotgarh (Sub-Tehsil Kumharsain)	60	a	83·8	83·8	88·1	58·4	63·5	103·4	245·4	205·2	115·1	30·2	13·2	33·2	1123·4	177·8	1953 Jan 23
		b	5·0	5·2	6·4	5·2	5·7	7·5	14·9	13·4	7·0	2·2	1·0	2·3	75·8		
Pancha (Tehsil Rampur)	10	a	110·0	80·0	142·0	88·7	90·9	120·9	632·5	721·6	290·8	102·6	15·5	37·6	2433·1	142·2	1960 Jul 30
		b	7·3	4·7	9·0	6·0	6·0	7·1	21·9	24·0	13·3	4·9	1·0	3·4	108·6		
SIRMUR DISTRICT																	
Nahan (Tehsil Nahan)	7	a	80·5	30·2	37·6	6·6	19·6	89·4	325·4	578·1	177·3	107·2	19·3	16·5	1487·7	236·2	1951 Aug 21
		b	5·7	2·3	2·0	0·7	1·9	5·6	14·0	17·3	7·3	3·0	0·6	1·0	61·4		
Paonta (Tehsil Paonta)	7	a	78·7	26·4	39·6	9·4	41·7	99·3	483·9	604·5	186·7	120·7	14·0	22·3	1727·2	226·1	1956 Jul 26
		b	5·3	1·9	2·1	0·9	3·0	6·1	15·7	17·0	7·4	3·0	0·4	0·9	63·7		
Dadahu (Tehsil Rainka)	7	a	116·6	39·9	57·7	12·7	33·8	150·6	469·1	516·6	233·2	159·5	16·3	27·4	1833·4	246·4	1956 Oct 12
		b	5·3	2·0	2·6	1·1	2·6	7·6	14·0	16·0	7·1	3·4	0·6	1·3	63·6		
Sarahan (Tehsil Pachhad)	7	a	115·1	42·4	54·4	23·6	26·9	118·9	471·9	375·2	178·1	159·3	12·2	20·8	1598·8	215·9	1951 Aug 22
		b	6·6	2·4	3·3	1·9	3·0	7·4	16·7	16·9	7·6	3·6	0·6	1·8	71·0		
Dhola Kuwa (Tehsil Paonta)	7	a	85·3	36·8	27·2	6·3	18·0	135·9	518·7	645·7	168·9	72·9	15·5	16·3	1747·5	216·1	1953 Aug 1
		b	5·3	2·2	1·8	0·7	1·7	7·3	15·5	16·3	7·8	2·0	0·6	0·9	62·1		
KINNAUR DISTRICT																	
Kilba (Sub-Division Kalpa)	60	a	69·6	73·4	112·0	77·5	53·9	30·0	69·6	60·2	75·4	29·5	14·2	49·5	714·8	609·6	1958 Dec 27
		b	5·3	4·9	8·7	5·6	4·9	3·2	7·6	7·1	5·6	2·2	1·1	2·9	59·1		
Sangla (Sub-Division Kalpa)	10	a	184·7	177·5	98·0	73·4	73·4	33·0	69·3	55·9	69·9	76·5	16·3	142·5	1070·4	558·8	1958 Dec 21
		b	9·4	5·8	8·0	6·0	5·2	3·2	8·2	6·9	6·3	3·6	1·0	3·8	67·4		
Purbani (Sub-Division Kalpa)	10	a	146·8	123·2	104·1	54·4	63·0	11·4	35·1	26·4	44·2	56·6	15·2	99·3	779·7	355·6	1958 Dec 21
		b	8·5	3·8	8·4	5·5	5·1	1·4	4·8	3·2	4·9	3·6	0·9	3·6	53·7		
Kalpa (Sub-Division Kalpa)	10	a	92·5	65·0	74·4	81·3	81·5	20 3	55·1	36·8	61·5	74·2	10·9	54·6	708·1	77·7	1956 Oct 9
		b	8·4	5·4	7·5	6·6	5·9	2·0	6·7	4·9	5·3	3·4	0·9	3·9	60·9		
Nachar (Sub-Division Nachar)	30	a	105·9	87·6	112·8	66·3	61·5	60·7	145·0	141·2	117·3	51·3	11·7	41·7	1003·0	268·2	1956 Oct 10
		b	6·1	5·1	7·6	5·9	6·2	6·7	13·1	13·3	8·7	3·2	0·9	3·1	79·9		

a = Normal rainfall in mm.
b = Average number of rainy days (days with rain of 2·5 mm or more)
* = Based on all available data upto
(i) 1960—Kinnaur, Mahasu and Mandi
(ii) 1958—Chamba
(iii) 1957—Sirmur

TABLE 2

Normals of temperature and relative humidity

BILASPUR

Month	Mean Daily Maximum Temperature °C	Mean Daily Minimum Temperature °C	Highest Maximum ever recorded °C	Highest Maximum ever recorded Date	Lowest Minimum ever recorded °C	Lowest Minimum ever recorded Date	Relative Humidity 0830 %	Relative Humidity 1730* %
January	19·3	5·6	24·9	1960 Jan 31	0·3	1960 Jan 23	96	58
February	21·8	5·9	28·9	1960 Feb 27	0·8	1958 Feb 11	89	42
March	27·1	10·4	33·9	1959 Mar 25	5·4	1961 Mar 7	76	38
April	32·8	15·4	40·7	1958 Apr 27	8·8	1960 Apr 2	53	24
May	37·1	19·9	42·2	1956 May 9	13·5	1958 May 12	43	27
June	38·1	23·5	44·2	1958 Jun 17	16·7	1958 Jun 2	52	35
July	32·6	24·1	41·8	1957 Jul 3	21·3	1957 Jul 9	83	67
August	31·7	23·5	35·4	1957 Aug 23	20·0	1957 Aug 1	87	70
September	31·0	21·8	35·4	1957 Sep 9	16·1	1957 Sep 23	89	67
October	29·3	15·7	33·3	1959 Oct 1	9·7	1957 Oct 31	90	53
November	25·4	8·7	30·3	1958 Nov 1	3·1	1958 Nov 27	95	49
December	21·6	5·5	26·5	1959 Dec 15	0·0	1960 Dec 20	95	58
Annual	29·0	15·0					79	48

*Hours I.S.T.

TABLE 3

Normals of temperature and relative humidity

MANDI

Month	Mean Daily Maximum Temperature °C	Mean Daily Minimum Temperature °C	Highest Maximum ever recorded °C	Highest Maximum ever recorded Date	Lowest Minimum ever recorded °C	Lowest Minimum ever recorded Date	Relative Humidity 0830 %	Relative Humidity 1730* %
January	17·6	4·0	23·9	1957 Jan 25	—2·8	1955 Jan 1	95	62
February	20·5	4·7	27·8	1956 Feb 26	0·2	1957 Feb 15	89	46
March	25·5	9·6	32·3	1959 Mar 23	4·3	1958 Mar 5	80	42
April	30·6	13·3	38·9	1958 Apr 27	6·7	1955 Apr 12	67	38
May	34·4	17·2	40·6	1956 May 9	9·9	1959 May 22	53	31
June	36·2	20·9	42·7	1958 Jun 18	15·3	1958 Jun 2	58	43
July	31·1	21·8	39·4	1954 Jul 1	16·1	1955 Jul 21	88	73
August	30·6	21·3	34·2	1957 Aug 22	16·6	1957 Aug 2	89	78
September	29·7	19·4	33·9	1956 Sep 6	14·9	1957 Sep 28	87	74
October	27·6	13·4	31·7	1959 Oct 1	6·7	1954 Oct 28	90	67
November	24·3	7·0	29·5	1958 Nov 1	2·8	1956 Nov 28	95	65
December	19·8	3·8	25·6	1959 Dec 4	—2·2	1954 Dec 31	96	65
Annual	27·3	13·0					82	56

*Hours I.S.T.

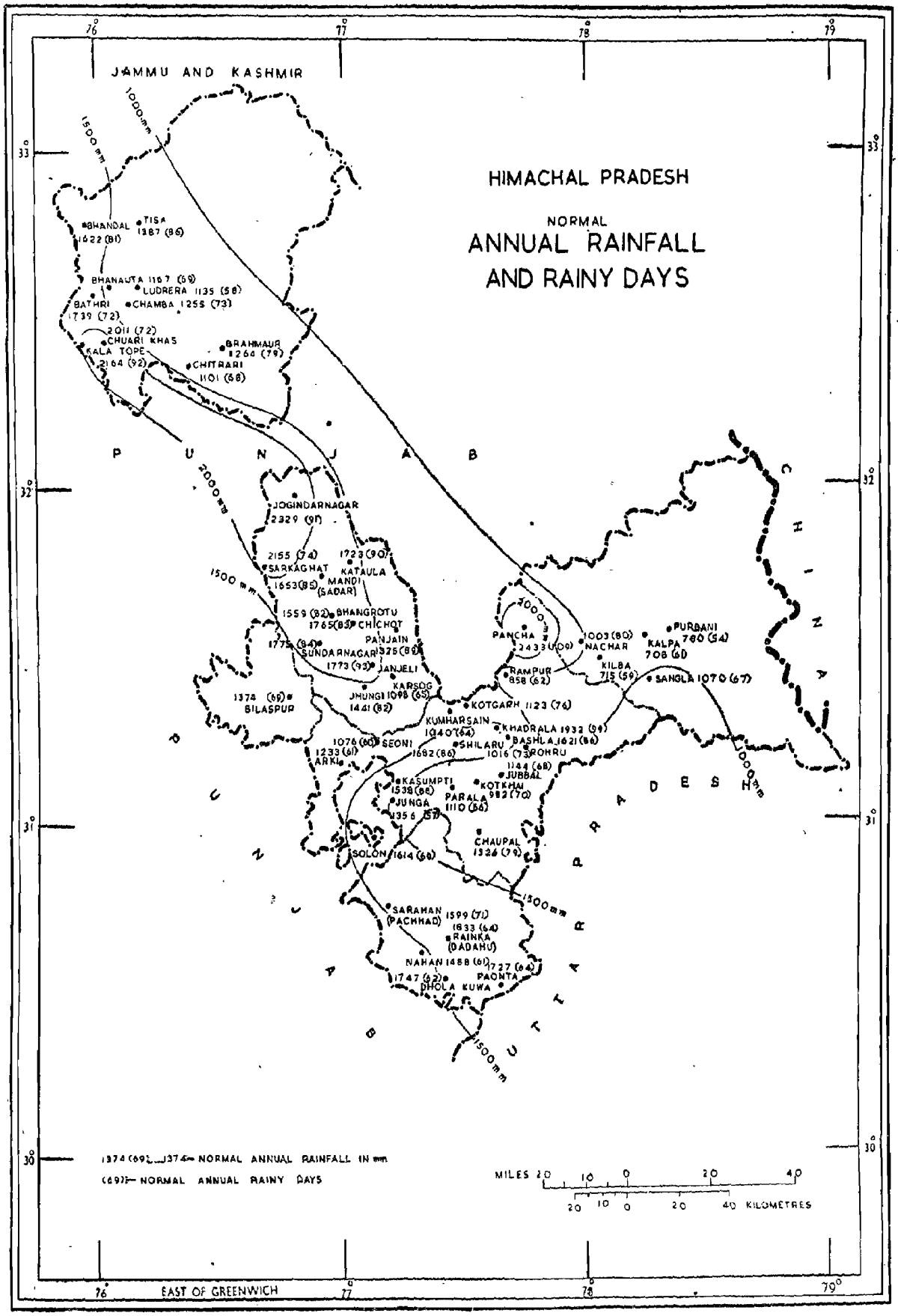

HIMACHAL PRADESH
NORMAL
ANNUAL RAINFALL
AND RAINY DAYS
JAMMU AND KASHMIR
PUNJAB
UTTAR PRADESH
CHINA
1000mm
1500mm
2000mm
3000mm
BHANDAL 1622 (81)
TISA 1387 (86)
BHANAUTA 1167 (69)
LUDRERA 1135 (58)
BATHRI 1739 (72)
CHAMBA 1255 (73)
2011 (72)
CHUARI KHAS
KALA TOPE 2164 (92)
BRAHMAUR 1264 (79)
CHITRARI 1101 (68)
JOGINDARNAGAR 2329 (91)
2155 (74)
SARKAGHAT
1723 (90)
KATAULA
MANDI (SADAR)
1653 (85)
1559 (82)
BHANGROTU
1765 (83)
CHICHOT
1775 (84)
SUNDARNAGAR
PANJAIN 1325 (80)
1773 (93)
JANJELI
KARSOG
1374 (69)
BILASPUR
JHUNGI 1098 (65)
1441 (82)
PANCHA 2433 (100)
1003 (80)
NACHAR
PURBANI 760 (54)
KALPA 708 (61)
KILBA 715 (59)
RAMPUR 858 (62)
SANGLA 1070 (67)
KOTGARH 1123 (76)
KUMHARSAIN 1040 (64)
KHADRALA 1932 (99)
BASHLA 1621 (86)
1076 (80)
SEONI
1233 (61)
ARKI
1682 (86)
SHILARU
1016 (73)
ROHRU
1144 (68)
JUBBAL
KASUMPTI 1538 (96)
KOTKHAI 982 (70)
JUNGA 1356 (57)
PARALA 1110 (66)
CHAUPAL 1326 (79)
SOLON 1614 (66)
SARAHAN (PACHHAD) 1599 (71)
1633 (64)
RAINKA (DADAHU)
NAHAN 1488 (61)
1727 (64)
1747 (62)
PAONTA
DHOLA KUWA
1374 (69) 1374 NORMAL ANNUAL RAINFALL IN mm
(69) NORMAL ANNUAL RAINY DAYS
MILES 20 10 0 20 40
20 10 0 20 40 KILOMETRES
EAST OF GREENWICH
76° 77° 78° 79°
33° 32° 31° 30°

TABLE 4

Normals of temperature

CHAMBA

Month	Mean Daily Maximum Temperature °C	Mean Daily Minimum Temperature °C
January	15·2	5·2
February	16·1	5·9
March	22·3	10·6
April	28·6	14·6
May	32·5	17·8
June	33·8	20·9
July	30·4	22·0
August	28·8	21·2
September	29·1	18·1
October	27·1	12·6
November	22·5	8·5
December	18·3	5·9
Annual	25·4	13·6

Temperature and Humidity

There are only two meteorological observatories, one at Bilaspur and the other at Mandi, the records of which are available for a few years only. Records of temperature alone are available for Chamba for the period 1885 to 1896. Tables 2, 3 and 4 give the temperature and humidity data for these stations.

In the summer season from March to June some of the valleys and regions at lower elevations experience great heat, but the mountainous areas remain cool and pleasant. The atmosphere is generally very dry during the summer season. In the southwest monsoon season from July to mid-September the temperatures are lower than in the summer season and the weather is more pleasant even at the lower elevations. The humidity however is high in this season and as a consequence on some days the weather may be oppressive in some low lying valleys when the rains cease.

In the post monsoon season from mid-September to November temperature gradually decreases and the weather is pleasant and even in the valleys nights are cool. Humidity also decreases. The weather in the winter season from December to February is cold, the temperature going several degree below freezing point of water".

Influence of climatic and rainfall conditions on the building of houses

It will have been observed from the note on the climate and precipitation in Himachal Pradesh that the climate though in general temperate, is largely influenced by elevation which generally ranges from 1,640 feet to 21,000 feet. Similarly there are large variations in the precipitation from place to place.

As far as climate is concerned the two extremes, i.e., the heat in the lower elevations in summer and the cold in the higher regions in winter are to be guarded against. How effective the building material used in the Pradesh are in this context, particularly the material of wall, reference is invited to the housing Table E-IV. In Himachal Pradesh out of 53,719 dwellings (20 per cent sample) 43,014 dwellings have stone as material of wall, followed by mud (6,396), unburnt bricks (2,714), timber (717), burnt bricks (602) and cement concrete (96). All these materials provide the best protection against heat and cold—the best that can be provided by any material. To ward off cold, use has in all cases to be made of warm clothing and heating also, and in the higher regions this is invariably done.

Grass, leaves, reeds or bamboo and C.I. sheets have also been used as material of wall for 149 dwellings in the Pradesh. Barring a few cases all these dwellings are in the lower regions, providing the best possible protection against heat. 31 temporary tent dwellings (all other material) have also been recorded, majority of which were those of Tibetan refugees.

It can safely be concluded from the foregoing analysis that all the materials of wall used in the construction of houses are quite in keeping with the climatic conditions in the Pradesh and the greatest and best use is made of the material available locally in every place. Materials used for roofing also provide good protection against heat and cold. Wooden ceilings, generally found in dwellings using slates, C.I. sheets for roofing and all other material (mixture of mud, grass, leaves and wooden boards and planks) also help. This ceiling may not be found in dwellings using grass leaves, reeds, thatch, bamboo, brick-lime, concrete and stone as roofing ma-

terial, but than these materials in themselves are quite effective against cold and heat.

There are large variations in precipitation in the Pradesh. According to the data available in the highest annual rainfall recorded is that of Pancha rain-gauge station in Mahasu District (2,433 mm.) and the lowest is that of Kalpa rain-gauge station in Kinnaur District (708.1 mm.). The precipitation in the winter season is in the form of snow at higher elevations.

In regions of very heavy snow the walls of houses should be made of *pucca* stuff to support strong roofs capable of with-standing heavy weight of snow, as otherwise there is danger of caving in of the roofs and walls collapsing. Kinnaur District and some tehsils of Chamba District are subject to very heavy snow where the walls generally are made of stone which can support sturdy roofs with heavy weight of snow. The roofs in these regions are supported by strong closely laid rafters. The roofing material is predominantly 'all other material' i.e., mud laid on grass, leaves spread on pieces of wood supported on rafters and wood and mud, all indigenous stuff. Slate, another indigenous roofing material is used in some places. The use of C.I. sheets is coming in. In these regions the snow is frequently cleared from the roofs, as there is a limit to which a roof can stand the weight of snow.

From the rains in general the buildings are to be guarded against the washing out of walls made of mud and unburnt bricks. The dwellings in Himachal Pradesh are not habitually exposed to danger from floods and inundation as in the plains, the slopy terrain providing easy and quick drainage to rain water.

Out of 53,179 dwellings (20 per cent sample) in the Pradesh more than 80 per cent of the dwellings are built of *pucca* wall material such as stone, burnt bricks, C.I. sheets and cement concrete and only 9,110 have walls made of mud and unburnt bricks which are exposed to the danger of washing out of walls by heavy rains if such rains are accompanied by winds which lash the rain water against the walls. But this phenomena of rain and wind is not common in the lower elevations where most of the dwellings with mud and unburnt bricks are to be found. Proper roofing of the houses and their construction at sites sheltered from wind minimise the danger. Then again the houses with mud walls are made with heavy ramming of the mud. This ramming results in closing of pores and air-holes in the mud; thereby making the walls water resistant and naturally strong. The houses with mud walls are more in number in the Pradesh than the houses with walls of unburnt bricks. There are some dwellings with walls of grass, leaves, reeds or bamboo and all other material (tent) also in the Pradesh. They are, however, not exposed to the danger of washing out by rains like mud walls.

Whatever may be the material of wall the roofing material and the roofing style are of great importance for the safety of buildings from rains. The roofs of houses in Himachal Pradesh, excepting in the higher regions of very heavy snow and in some cases in the lower elevations also, are slopy which allow rain water to flow down easily and quickly with no resultant bad effect on the walls. The materials used for these slopy roofs are slates, grass, leaves, thatch, wood, C.I. sheets, and asbestos cement sheets. The largest number of dwellings in the Pradesh are covered by these materials and of them slates alone cover 28,487 dwellings out of total 53,719 (20 per cent sample) dwellings.

In the higher regions of very heavy snow like Kinnaur District and some tehsils of Chamba where roofs are commonly flat, of course with a little slant to drain off the water, and in some places in the lower elevations where houses with similar flat roofs are also to be found, proper care is taken of the roofs to ward off seepage of water. These flat roofs are made of 'all other material', the principal ingredient being mud, which is rammed. The ramming process closes the pores and air holes of the wind, thus preventing the seepage of water. Regular plastering at intervals is invariably done of the rammed in mud to keep the roofs in water tight condition. Then again in the higher regions of very heavy snow, rainfall is scanty, which means very little seepage of water from the top and the snow from the roof as already stated, is frequently cleared. The freezing temperature further prevents the seepage.

In all the material of wall and roof used in the Pradesh provides the best possible protection from the extremes of climate and rains,

and excepting for C.I. sheets, asbestos cement sheets, cement, tents, and in few cases burnt bricks, all the material used is indigenous.

Soil geology — examination of cropping pattern and plantation pattern for building material

Geological products— Mud, stone and slates are the principal building materials used according to their local availability. A note by Dr. S. P. Raychaudhri, giving a brief outline of the soil geology of Himachal Pradesh regarding the availability of building materials is printed here for the benefit of readers.

A BRIEF OUTLINE OF THE SOIL GEOLOGY OF HIMACHAL PRADESH REGARDING THE AVAILABILITY OF BUILDING MATERIAL

BY

Dr. S. P. Raychaudhri, M.Sc. (Cal.), Ph. D. (Lond.), D. Sc. (Cal. & Lond.), FRIC, FNI, Senior Specialist (Land Resources), Planning Commission, New Delhi.

Introduction

"The centrally administered territory of Himachal Pradesh consists of six districts, viz., (1) Chamba, (2) Mandi, (3) Bilaspur, (4) Mahasu (5) Sirmur and (6) Kinnaur.

Climate

The climate of the Pradesh has many local variations particularly in rainfall, temperature and exposure. There exist three typical belts of climate which are co-linked with the topographic distribution. Coniferrous forest areas where heavy snowfall is received in the winter months (December—March) and summer months are cooler and humid as compared to two other belts. The second climatic belt which receives the snow and rain with frost in the winter and summer months is hotter than the former one. The third is the area in narrow valleys which experiences severe heat during summer as compared with the other two belts.'

Soils

On the basis of soil survey work carried out by the Department of Agriculture, Himachal Pradesh, it has been possible to group the soils of the Pradesh into the following five zones on broad lines:—

(1) *The Low Hill Soil Zone* — These soils are found up to an altitude of about 3,000 ft. above the sea level. The soils are sandy loam to loam in texture and light grey to brown in colour. The soils are not very deep and are embedded with pebbles and boulders. They are mostly seen in the narrow valleys on the banks of rivers or streams, and are well drained. The soils are mostly of neutral reaction.

(2) *The Mid Hill Soil Zone* — These soils found at an altitude of 3,000 ft. to 5,000 ft. above the sea level, mostly occur on the hill slopes varying much in gradient. The soil texture is medium-fine varying from loam to silt loam. The colour of these soils is greenish to brown and depth of the soil varies considerably from plain to plain. These soils have varying percentages of pebbles and angular fragments which have an adverse influence on the fertility status when they are large. The soils are well drained and hence susceptible to severe drought effect. The soil reaction is also mostly neutral and sometimes acidic.

(3) *The High Hill Soil Zone* — Under this zone, the soils are found at an altitude from 5,000 ft. to 7,000 ft. above the sea level. The soils are mostly situated on steep slopes and are of fine texture, varying from silt loam to clay loam. The colour of the soils is light to dark brown. They are often quite deep, at certain places the depth of the soils having been traced up to 60 ft. The soils have good drainage and fertility status is also quite high. The soil reaction shows a distinct trend towards greater acidity.

(4) *Mountainous Soil Zone* — This zone comprises the soils on high peaks varying in altitude from 7,000 ft. to 10,000 ft. above sea level. Mostly, it is under forest. These soils are generally shallower in depth than those of the hills. The soils are silty loam to loam in texture and dark brown in colour. The soil reaction is slightly to moderately acidic. The surface drainage is very rapid. The internal drainage is very good.

(5) *Dry Hills Soil Zone* — District of Kinnaur and Pangi sub-tehsil of Chamba District, where monsoon rainfall is almost negligible, form the above separate zone. These soils have not been so far scientifically studied. The soils are suitable for dry fruit production.

Geology

The geology of the Himalayan region in Himachal Pradesh is briefly described under three parallel zones from south to north:—

(i) *Sub-Himalaya* — Constitute the foothills bordering the Indo-Gangetic plains. The rocks of this region are the sedimentaries of Tertiary age. The Siwalik system in this region constitutes a group of fresh water sand stones and conglomerates with subordinate clays. The middle and lower Siwaliks are composed of sandstones, sometimes calcareous with occasional beds of red clay. The lower Siwalik rocks of the northern sub-Himalayan zone at Nahan, consisting of grey sandstones are locally known as Nahan beds. The older Tertiary sediments exposed further north are known as Subathu, Dagshai and Kasauli beds. In the Sirmur area the Subathu beds consist of red and greenish shales and clays with thin bands of fossiliferous limestone. The rocks of Dagshai and Kasauli ridges are mainly of red clays and hard reddish brown and greenish grey sandstones. In the outer Himalayas of Mandi, folded dolomites belonging to the Krol series of the middle ranges are seen to occur.

(ii) *Lesser Himalaya* — With heights between 6,000 ft. and 10,000 ft. is made up of pre-Cambrian and Palaeozoic sediments. The oldest rocks of this zone are a group of quartzites, quartz-schists, collectively known as "Jutogh series" exposed over a wide area around the Chor granite massif in the Sirmur and Mahasu districts. The next younger group of rock physically underlying the Jutogh series due to thrusting, are a group of grey slaty phyllites, talcose quartzites and silvery grey sericitic phyllites, exposed over extensive area around Chor mountain country and near Simla and Chail and are named as Chail series. Another group of rocks in this region, known as the "Jaunsar series" consists of an unfossiliferous assemblage of purple, greenish or grey phyllites and pinkish massive quartzites with bands of intra-formational conglomerates. These rocks are younger than the Chail series.

(iii) *The Highest Zone* — The great Himalaya is a great line of snowy peaks with an average height over 20,000 ft. It consists of the same types of sediments as in the lesser Himalaya but intensely metamorphosed and extensively intruded by granitic rocks.

Occurrences of building materials

A. *Lime stone* — Workable deposits of good quality limestone occur in all the five tehsils (Jogindarnagar, Sundarnagar, Mandi, Sarkaghat and Karsog) of Mandi district.

Occurrence of limestone is also reported from the area north of Giri river in Sirmur district.

B. *Kaolin* — High grade variety of Kaolin occurs in vicinity of Rajpur in the Paonta tehsil, Sirmur district.

C. *Sandstone* — Sandstone preponderates in the sub-Himalayan deposits. The whole middle and lower Siwaliks comprise of sandstone with occasional thick beds of red clay and discontinuous bands and nodules of limestone, the sandstone itself being sometimes calcareous. The Nahan or lower Siwalik rocks forming the inner sub-Himalayan zone at Nahan consist mainly of grey sandstone often spoken of as "lignite sandstone". The Dagshai ridge is entirely made up of these red clays and hard sandstones of the middle Sirmur group. On the Kasauli ridge, sandstone with occasional bands of grey sandy shale is found.

D. Slaty shales — In the neighbourhood of Solon the geological formations consist of finely laminated slaty shales and sandy flagstones. The laminations are sometimes fine enough to produce serviceable roofing slate.

E. *Brown, olive and red clays* — The rocks forming the outer Tertiary Zone, the true Siwalik hills south of Nahan consist, at top of conglomerates and brown clays, soft grey sandstone and red and yellow clays.

The most distinctive rock in the Sabathu group is the thin bedded limestone associated with brown, olive and red clays. In the Sirmur area, the prevailing rock of the Sabathu group is a fine, pale yellowish brown clay with thin beds of limestone. Dark greenish shales and sometimes harder sandy beds occur. At the top of the group, beds of red clay or shale alternate with the typical Sabathu rocks.

F. *Conglomerates* — Conglomerates occur largely in the upper Siwaliks. They are often made up of the coarse shingles. Brown clays are often associated with the conglomerate.

Reference notes:—

1. Dey, A. K. (1962)—A brief outline of the geology of Himachal Pradesh.
2. Director (N. R.), Geological Survey of India, (1962)—Note on the Geology of Himachal Pradesh.
3. Director of Agriculture, Himachal Pradesh, (1961)—Soils of Himachal Pradesh."

Extracts from the geological notes on Himachal Pradesh about the availability of roofing slates are also given below for the benefit of the readers. These extracts have been printed with the permission of the Director General, Geological Survey of India, Calcutta.

Chamba District

"*Slates* — Excellent slate is found around Chamba and is used for roofing.

Mandi District

Slates — Excellent slate is found around many places in the district. Slate quarries are in active operation near Pandoh, Chichot and Uttar Sal areas of the district.

Mahasu District

Slates — These are querried at many places in the outer Himalayas of Simla Hills. Good roofing slates are available."

Plantation products

Grass, leaves, wood or timber equally important like mud, stone and slates for building are used according to their local availability. A list of plant species the timber of which is used for house construction in the districts of the Pradesh is given in the Statement V-6 and a list of grasses used for thatching is given in the Statement V-7.

STATEMENT V-6

Timber used for house construction in Himachal Pradesh

Plant species		Altitude where the species grow	Timber of the species used for house construction according to local availability in District					
			Chamba	Mandi	Bilaspur	Mahasu	Sirmur	Kinnaur
1		2	3	4	5	6	7	8
ANACARDIACEAE	Mangifera indica (Am, Ambi) .	Up to 3,000 ft.	..	..	Yes	Yes	Yes	..
COMBRETACEAE	Anogeissus latifolia (Bakli, Bankli, Chhal)	Up to 4,000 ft.	..	..	..	..	Yes	..
,,	Terminalia arjuna (Arjun) .	Up to 4,000 ft.	..	..	Yes	..	..	..
,,	Terminalia belerica (Bahera) .	Up to 4,000 ft.	..	..	Yes	..	..	..
,,	Terminalia tomentosa (Asaina, Sain)	Up to 4,000 ft.	..	..	..	Yes	Yes	..
CONIFERAE	Abies pindrow (Krok, Morinda, Span, Tos, Tosh)	8,000—10,000 ft.	Yes	Yes	..	Yes	Yes	Yes
,,	Cedrus deodara (Deodar, Diar, Kelmung, Kelu)	4,000—9,000 ft.	Yes	Yes	..	Yes	Yes	Yes
,,	Picea smithiana (Rai, Raiang, Rau)	6,000—11,000 ft.	Yes	Yes	..	Yes	Yes	Yes
,,	Pinus gerardiana (Chilgoza, Neoza, Ri)	6,000—10,000 ft. (Dry Zone)	..	..	..	..	..	Yes
,,	Pinus roxburghii (Chil, Chir) .	1,500—6,000 ft.	Yes	Yes	Yes	Yes	Yes	..
,,	Pinus wallichiana (Kail, Lim) .	6,000—10,000 ft.	Yes	Yes	..	Yes	Yes	Yes
DIPTEROCARPACEAE	Shorea robusta (Sal) .	Up to 4,000 ft.	..	..	..	..	Yes	..
GRAMINEAE	Dendrocalamus strictus (Bans).	Up to 3,500 ft.	..	..	Yes	Yes	Yes	..

STATEMENT V-6—*concld*

Timber used for house construction in Himachal Pradesh—concld.

	Plant species	Altitude where the species grow	Timber of the species used for house construction according to local availability in Districts					
			Chamba	Mandi	Bilaspur	Mahasu	Sirmur	Kinnaur
	1	2	3	4	5	6	7	8
LEGUMINOSAE	Albizzia lebbek (Siras, Siris)	Up to 5,000 ft.	Yes	Yes	Yes	Yes	Yes	..
,,	Dalbergia sissoo (Shisham, Sissu, Tab)	Up to 4,000 ft.	Yes	Yes	Yes	Yes	Yes	..
MELIACEAE	Cedrela serrata (Chimu, Darl, Darli, Darlu)	4,000—8,000 ft.	Yes	Yes	..	..	..	..
,,	Cedrela toona (Toon, Tun) .	Up to 3,000 ft.	Yes	Yes	Yes	Yes	Yes	..
MYRTACEAE	Eugenia gambolana (Jaman, Jamun) .	Up to 5,000 ft.	Yes	Yes	Yes	Yes	Yes	..
SALICACEAE	Populus alba (Mal, Safeda) .	4,000—10,000 ft.	..	..	..	..	..	Yes
URTICACEAE	Celtis australis (Kharak, Khirk)	2,000—8,000 ft.	Yes	Yes	Yes	..	Yes	..

Source—The Chief Conservator of Forests, Himachal Pradesh.

STATEMENT V-7

Grasses commonly used for thatching in Himachal Pradesh

	Plant species	Altitude where the species grow
	1	2
GRAMINEAE	—Heteropogon contortus —Common spear grass (Lamb)	Up to 5,000 ft.
,,	—Imperata arundinacea (Kusha, Kash)	,, 3,000 ft.
,,	—Ischaemum angustifolum (Bhabar)	,, 5,000 ft.
,,	—Saccharum spontaneum (Kahi, Kan, Kans)	,, 4,000 ft.

Source—The Chief Conservator of Forests, Himachal Pradesh.

Pattern of villages and types of houses in rural areas

A special study was conducted to collect information about the pattern of villages and the types of houses in rural areas of the Pradesh. Photographs or drawings of villages and typical rural houses including ground plans, line drawing of houses have been collected and compiled and are embodied in Part III of this report.

Sociological study — rich and poor households as reflected in building material used in urban areas

Generally owning a house in an urban area may be an indication of well-being, but whether the house is built of *kacha or pucca* material grades the prosperity of the owner further. Households living in rented houses in urban areas are to be judged from a different angle. Well-to-do households can afford to go in for renting well built *pucca* houses and the poor ones have to do with the *kacha* houses. The houses built with stone or burnt bricks or cement concrete or C.I. sheets as material of wall and slates or C.I. sheets or asbestos cement sheets, or brick and lime, or concrete-stone as material of roof may be deemed as *pucca* houses, and houses built of material other than these are *kacha* houses. A household owning or renting a well built *pucca* house may be classified as rich, and a household living in a rented *kacha* house is to be relegated to the category of the poor. The households owning a *kacha* house stands in between the rich and the poor, quite higher than the poor but sufficiently below the rich. The distribution of sample Households living in Census Houses used wholly or partly as dwelling by predominant material of wall and predominant material of roof, as given in the Table E-IV for the urban areas, has been further classified into owned or rented for the sociological study of rich and poor households vide Statement V-8. The extent to which each locality (town) is of mixed population of rich and poor households is discernible from the Statement.

STATEMENT V-8

Distribution of urban sample Households living in Census Houses used wholly or partly as dwellings (owned and rented) by predominant material of wall and predominant material of roof

(Based on 20 per cent Sample)

Serial No.	Union Territory/ District/Town	Total No. of Households		Predominant material of Wall													
				Grass, leaves, reeds or bamboo		Timber		Mud		Unburnt bricks		Burnt bricks		C.I. sheets or other metal sheets		Stone	
		Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3a	3b	4a	4b	5a	5b	6a	6b	7a	7b	8a	8b	9a	9b	10a	10
	HIMACHAL PRADESH	**1,463**	**1,283**	**2**	..	**2**	**18**	**71**	**85**	**4**	**2**	**88**	**236**	**5**	**16**	**1,270**	**899**
	Chamba District	*181*	*161*	..	..	..	*2*	..	..	..	..	..	..	..	..	*181*	*158*
1	Chamba Town	181	161	..	..	..	2	..	..	..	..	..	..	..	..	181	158
	Mandi District	*598*	*348*	..	..	*2*	*5*	*1*	..	..	..	1	..	1	..	*578*	*318*
2	Jogindarnagar Town	54	83	..	..	..	..	..	..	..	..	..	..	..	..	50	61
3	Mandi Town	334	212	..	..	2	4	..	..	..	..	..	..	..	..	331	207
4	Sundarnagar Town	210	53	..	..	..	1	1	..	..	..	1	..	1	..	197	50
	Bilaspur District	*189*	*118*	..	..	..	1	..	..	..	..	4	11	..	..	*184*	*105*
5	Shri Naina Devi Ji Town	11	..	..	..	..	..	..	..	..	..	..	..	..	..	11	..
6	Bilaspur Town	178	118	..	..	..	1	..	..	..	..	4	11	..	..	173	105
	Mahasu District	*168*	*440*	..	..	..	*9*	*58*	*84*	1	..	*41*	*184*	*4*	*16*	*69*	*147*
7	Arki Town	45	28	..	..	..	..	35	18	..	..	8	10	..	..	..	..
8	Narkanda Town	2	15	..	..	..	4	..	..	..	..	..	..	..	..	2	11
9	Rampur Town	40	64	..	..	..	1	..	..	..	..	..	..	..	..	38	63
10	Theog Town	21	55	..	..	..	4	..	..	1	..	3	1	4	16	13	34
11	Solon Town	60	278	..	..	..	..	23	66	..	..	30	173	..	..	7	39
	Sirmur District	*327*	*216*	*2*	..	..	*1*	*12*	*1*	*3*	*2*	*42*	*41*	..	..	*267*	*171*
12	Nahan Town	285	182	..	..	..	..	..	..	..	..	18	11	..	..	266	171
13	Paonta Town	42	34	2	..	..	1	12	1	3	2	24	30	..	..	1	..

STATEMENT V-8—*concld*

Distribution of urban sample Households living in Census Houses used wholly or partly as dwellings (owned and rented) by material of wall and predominant material of wall and predominated material of roof—concld.

(Based on 20% Sample)

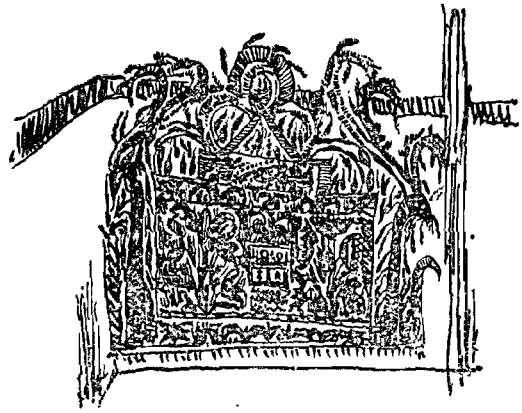
Serial No.	Union Territory/ District/Town	Predominant material of roof																	
		Cement concrete		All other material		Grass, leaves, reeds, thatch, wood or bamboo		Tiles, slate, shingle		Corrugated iron, zinc or other metal sheets		Asbestos cement sheets		Bricks and lime		Concrete and stone		All other material	
		Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	11a	11b	12a	12b	13a	13b	14a	14b	15a	15b	16a	16b	17a	17b	18a	18b	19a	19b
	HIMACHAL PRADESH	**21**	**21**	..	..	**171**	**135**	**740**	**135**	**292**	**411**	**66**	**207**	**4**	**6**	**5**	**4**	**185**	**85**
	Chamba District	..	*1*	..	..	..	..	*168*	*141*	*10*	*13*	*3*	*7*	..	..	..	..	..	..
1	Chamba Town	..	1	..	..	..	..	168	141	10	13	3	7	..	..	..	..	..	..
	Mandi District	*15*	*25*	..	..	*55*	*77*	*522*	*241*	*21*	*26*	..	*3*	..	..	..	..	..	1
2	Jogindarnagar Town	4	22	..	..	14	6	40	77	..	..	..	..	..	..	..	..	..	..
3	Mandi Town	1	1	..	..	16	51	312	139	6	18	..	3	..	..	..	..	..	1
4	Sundarnagar Town	10	2	..	..	25	20	170	25	15	8	..	..	..	..	..	..	..	..
	Bilaspur District	*1*	*1*	..	..	*77*	*19*	*10*	*1*	*100*	*62*	*2*	*35*	..	..	..	..	..	1
5	Shri Naina Devi Ji Town	..	..	..	..	5	..	..	..	5	..	1	..	..	..	..	..	..	..
6	Bilaspur Town	1	1	..	..	72	19	10	1	95	62	1	35	..	..	..	..	..	1
	Mahasu District	*4*	..	..	..	*16*	*33*	*34*	*45*	*83*	*232*	*13*	*103*	*3*	*6*	*6*	*4*	*14*	*17*
7	Arki Town	2	..	..	..	10	..	..	1	31	20	1	1	3	6	..	..	..	..
8	Narkanda Town	..	..	..	..	..	..	2	..	..	15	..	..	..	..	..	..	..	..
9	Rampur Town	2	..	..	..	4	11	23	25	8	22	..	2	..	..	5	4	..	..
10	Theog Town	..	..	..	..	2	22	9	16	10	17	..	..	..	..	..	..	..	..
11	Solon Town	..	..	..	..	..	..	..	3	34	158	12	100	..	..	..	..	14	17
	Sirmur District	*1*	..	..	..	*23*	*6*	*6*	*7*	*78*	*78*	*48*	*59*	*1*	..	..	..	*171*	*66*
12	Nahan Town	1	..	..	..	4	3	..	1	72	69	45	50	1	..	..	..	*163*	59
13	Paonta Town	..	..	..	..	19	3	6	6	6	9	3	9	..	..	..	..	8	7

Replacement of kacha building material by durable material in rural areas — index of prosperity

In the absence of any past housing data it is not possible to make any comparison of past and present housing conditions. However, on the basis of the data thrown out by the present Housing Census, the first of its kind, *pucca* houses using stone or burnt bricks or C.I. sheets or cement concrete as material of wall — there are 41,236 dwellings (80.9 per cent) using these materials out of 50,973 dwellings (20 per cent sample) in the Pradesh rural — and slates or C.I. sheets or asbestos cement sheets or brick and lime or concrete and stone as material or roof — there are 31,712 dwellings, (62 per cent) using these materials out of 50,973 dwellings (20 per cent sample) in the Pradesh rural, may be taken to indicate sign of prosperity. But this yard stick of *pucca* houses will not be giving a true indication of prosperity. It will be showing many as prosperous which they may not be. The local availability of *pucca* building material cheap and in plenty such as stone for material of wall and slates for roofing used by 40,845 dwellings (80 per cent) and 27,312 dwellings (53 per cent) respectively out of 50,973 dwellings (20 per cent sample) in the Pradesh rural belies the yard stick. The rich and the poor both have made use of these building materials for construction of houses leaving no room for differentiation of prosperity and poverty.

The yard stick is further belied the other way round also by the structure of roofs and the *kacha* material used for them in the Kinnaur District and some tehsils of Chamba District. The roofs there are generally flat with little slant for drainage of water and the material used is *kacha* such as mud, leaves, grass and wood, all that are available locally. The climatic conditions have influenced the structure of roof there. This particular structure is helpful in keeping the cold out during snowy winter months. By the type of *kacha* roofing material it will be incorrect to classify the households as poor in these areas of Kinnaur and Chamba Districts.

No true index of prosperity can, therefore, be discerned from the building material used. It may, however, be possible to pick out the very prosperous households who have constructed houses with imported material such as burnt bricks or cement concrete or C.I. sheets as material of wall — there are 391 dwellings out of 50,973 dwellings in the Pradesh rural (20 per cent sample) in which these materials have been used, and C.I. sheets or asbestos cement sheets or brick and lime as material of roof — there are 3.122 dwellings out of 50.973 in which these roofing materials have been used. To pick out the very prosperous households the yard stick of the imported roofing material would be very near to correctness than the yard stick of material of wall.



Wall Paintings

Subsidiary Table E-IV.1

Distribution of 1,000 *Households living in Census Houses used wholly or partly as dwellings by predominant material of wall*

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-division (Total/Rural/Urban)		Grass, leaves, reeds or bamboo	Timber	Mud	Unburnt bricks	Burnt bricks	C.I. sheets or other metal sheets	Stone	Cement concrete	All other material
1		2	3	4	5	6	7	8	9	10
HIMACHAL PRADESH	**TOTAL**	1	13	119	51	11	2	800	2	1
	RURAL	1	14	122	53	6	1	801	1	1
	URBAN	1	7	57	2	118	8	790	17	0
Chamba District	**Total**	*N*	*8*	*50*	*0*	*0*	*0*	*942*	*N*	*0*
	Rural	*1*	*8*	*52*	*0*	*0*	*0*	*939*	*N*	*0*
	Urban	*0*	*6*	*0*	*0*	*0*	*0*	*991*	*3*	*0*
Chaurah Tehsil	Rural	0	1	13	0	0	0	986	0	0
Pangi Sub-Tehsil	Rural	0	3	0	0	0	0	997	0	0
Chamba Tehsil	Total	1	22	2	0	0	0	974	1	0
	Rural	1	25	3	0	0	0	971	N	0
	Urban	0	6	0	0	0	0	991	3	0
Bhattiyat Tehsil	Rural	N	2	178	0	0	0	819	1	0
Brahmaur Sub-Tehsil	Rural	0	1	0	0	0	0	999	0	0
Mandi District	**Total**	*N*	*16*	*99*	*13*	*3*	*1*	*863*	*4*	*1*
	Rural	*N*	*16*	*106*	*14*	*3*	*1*	*858*	*1*	*1*
	Urban	*0*	*8*	*1*	*0*	*1*	*1*	*947*	*42*	*0*
Jogindarnagar Tehsil	Total	N	2	6	62	2	N	912	16	N
	Rural	1	2	7	65	2	N	916	7	N
	Urban	0	0	0	0	0	0	810	190	0
Mandi Sadar Tehsil	Total	0	3	119	1	1	0	872	1	3
	Rural	0	2	142	1	1	0	850	0	4
	Urban	0	11	0	0	0	0	985	4	0
Sarkaghat Tehsil	Rural	0	N	33	N	0	N	966	1	0
Chichot Tehsil	Rural	0	94	0	0	0	5	900	0	1
Sundarnagar Tehsil	Total	1	1	179	9	18	N	785	7	0
	Rural	1	1	210	10	20	0	758	0	0
	Urban	0	4	4	0	4	4	939	45	0
Karsog Tehsil	Rural	0	6	410	0	0	0	584	0	0
Bilaspur District	**Total**	*1*	*11*	*52*	*336*	*19*	*7*	*572*	*2*	*0*
	Rural	*1*	*12*	*54*	*351*	*17*	*7*	*556*	*2*	*0*
	Urban	*0*	*3*	*0*	*0*	*49*	*0*	*941*	*7*	*0*
Ghamarwin Tehsil	Rural	0	18	78	598	5	0	301	N	0
Bilaspur Sadar Tehsil	Total	2	2	19	3	37	16	916	5	0
	Rural	2	2	21	4	36	17	914	4	0
	Urban	0	3	0	0	49	0	941	7	0
Mahasu District	**Total**	*N*	*5*	*211*	*N*	19	2	*762*	*N*	*1*
	Rural	*1*	*4*	*210*	*N*	*3*	*N*	*781*	*N*	*1*
	Urban	*0*	*15*	*234*	*2*	*370*	*33*	*340*	*6*	*6*

N=Negligible.

Note:—When figures of 'Rural' and 'Urban are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of total rural and urban areas separately per thousand.

Subsidiary Table E-IV.1—concld.

Distribution of 1,000 *Households living in Census Houses used wholly or partly as dwellings by predominant material of wall*—concld.

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-tehsil/Sub-division (Total/Rural/Urban)		Grass, leaves, reeds or bamboo	Timber	Mud	Unburnt bricks	Burnt bricks	C.I. sheets or other metal sheets	Stone	Cement concrete	All other material
1		2	3	4	5	6	7	8	9	10
Arki Tehsil	Total	0	0	981	1	11	0	5	2	0
	Rural	0	0	993	1	0	0	5	1	0
	Urban	0	0	726	0	247	0	0	27	0
Seoni Sub-Tehsil	Rural	2	0	875	0	0	0	123	0	0
Kumharsain Sub-Tehsil	Total	1	13	6	0	0	0	963	0	17
	Rural	1	9	6	0	0	0	967	0	17
	Urban	0	235	0	0	0	0	765	0	0
Rampur Tehsil	Total	1	8	0	0	0	N	990	1	0
	Rural	1	7	0	0	0	1	991	0	0
	Urban	0	10	0	0	0	0	971	19	0
Rohru Tehsil	Rural	0	11	2	0	0	0	987	0	0
Jubbal Tehsil	Rural	0	7	0	0	0	0	993	0	0
Kotkhai Sub-Tehsil	Rural	0	7	0	0	0	0	993	0	0
Theog Tehsil	Total	0	4	1	1	2	11	981	0	0
	Rural	0	2	1	0	0	0	997	0	0
	Urban	0	53	0	13	53	263	618	0	0
Kasumpti Tehsil	Rural	0	1	43	0	20	0	936	0	0
Solon Tehsil	Total	0	0	328	0	137	0	534	1	0
	Rural	0	0	347	0	7	0	645	1	0
	Urban	0	0	263	0	601	0	136	0	0
Chaupal Tehsil	Rural	2	2	0	0	0	0	996	0	0
Sirmur District	**Total**	*6*	*34*	*153*	*7*	*22*	*0*	*777*	*1*	*N*
	Rural	*6*	*37*	*163*	*7*	*12*	*0*	*774*	*1*	*N*
	Urban	*4*	*2*	*24*	*9*	*153*	*0*	*806*	*2*	*0*
Pachhad Tehsil	Rural	2	0	23	1	0	0	974	0	0
Rainka Tehsil	Rural	0	100	55	1	1	0	842	1	0
Nahan Tehsil	Total	7	1	15	0	27	0	949	1	0
	Rural	12	2	27	0	1	0	958	0	0
	Urban	0	0	0	0	62	0	936	2	0
Paonta Tehsil	Total	15	8	448	25	63	0	438	2	1
	Rural	15	8	459	24	38	0	453	2	1
	Urban	26	13	171	66	711	0	13	0	0
Kinnaur District*	**Rural**	*1*	*5*	*4*	*0*	*0*	*0*	*990*	*0*	*0*
Nachar Sub-Division	Rural	3	7	15	0	0	0	975	0	0
Kalpa Sub-Division	Rural	2	8	0	0	0	0	990	0	0
Poo Sub-Division	Rural	0	0	0	0	0	0	1,000	0	0

*Entirely rural.

N=Negligible.

Note:—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of total rural and urban areas separately per thousand.

Subsidiary Table E-IV.2

Distribution of 1,000 *Households living in Census Houses used wholly or partly as dwellings by predominant material of roof*

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division (Total/Rural/Urban)		Grass, leaves, reeds, thatch, wood or bamboo	Tiles, slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Concrete & stone slabs	All other material
1		2	3	4	5	6	7	8
HIMACHAL PRADESH	**TOTAL**	**248**	**530**	**71**	**5**	**N**	**24**	**122**
	RURAL	**256**	**536**	**61**	**N**	**N**	**25**	**122**
	URBAN	**112**	**428**	**256**	**99**	**4**	**3**	**98**
Chamba District	**Total**	*188*	*402*	*18*	*2*	*N*	*1*	*389*
	Rural	*196*	*381*	*16*	*N*	*1*	*1*	*405*
	Urban	*0*	*904*	*67*	*29*	*0*	*0*	*0*
Chaurah Tehsil	Rural	223	15	1	0	1	0	760
Pangi Sub-Tehsil	Rural	9	0	0	0	0	0	991
Chamba Tehsil	Total	224	494	36	5	0	3	238
	Rural	257	433	32	1	0	4	273
	Urban	0	904	67	29	0	0	0
Bhattiyat Tehsil	Rural	161	574	23	0	0	N	242
Brahmaur Sub-Tehsil	Rural	121	878	0	0	0	0	1
Mandi District	**Total**	*200*	*752*	*41*	*N*	*0*	*1*	*6*
	Rural	*204*	*749*	*40*	*N*	*0*	*1*	*6*
	Urban	*140*	*807*	*50*	*3*	*0*	*0*	*N*
Jogindarnagar Tehsil	Total	265	704	28	N	0	2	1
	Rural	270	697	30	N	0	2	1
	Urban	146	854	0	0	0	0	0
Mandi Sadar Tehsil	Total	181	789	11	1	0	N	18
	Rural	192	782	4	0	0	1	21
	Urban	123	826	44	5	0	0	2
Sarkaghat Tehsil	Rural	299	691	10	0	0	0	N
Chichot Tehsil	Rural	26	780	193	1	0	0	0

N=Negligible.

Note:—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of total rural and urban areas separately per thousand.

Subsidiary Table E-IV.2—contd.

Distribution of 1,000 Households living in Census Houses used wholly or partly as dwellings by predominant material of roof

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division (Total/Rural/Urban)		Grass, leaves, reeds, thatch, wood or bamboo	Tiles, slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Concrete & stone slabs	All other material
1		2	3	4	5	6	7	8
Sundarnagar Tehsil	Total	271	699	16	0	0	0	14
	Rural	289	691	3	0	0	0	17
	Urban	171	741	88	0	0	0	0
Karsog Tehsil	Rural	89	904	7	0	0	0	0
Bilaspur District	**Total**	*582*	*280*	*114*	*5*	*0*	*2*	*17*
	Rural	*594*	*290*	*95*	*N*	*0*	*3*	*17*
	Urban	*313*	*36*	*528*	*120*	*0*	*0*	*3*
Ghamarwin Tehsil	Rural	569	390	39	0	0	1	1
Bilaspur Sadar Tehsil	Total	599	138	210	12	0	4	37
	Rural	629	150	176	N	0	4	41
	Urban	313	36	527	121	0	0	3
Mahasu District	**Total**	*125*	*591*	*123*	*9*	*1*	*85*	*66*
	Rural	*127*	*612*	*105*	*N*	*N*	*89*	*67*
	Urban	*80*	*130*	*518*	*191*	*15*	*15*	*51*
Arki Tehsil	Total	451	188	336	1	5	12	7
	Rural	465	196	319	0	0	13	7
	Urban	137	14	629	27	123	0	0
Seoni Sub-Tehsil	Rural	220	696	69	0	0	1	14
Kumharsain Sub-Tehsil	Total	53	815	106	0	0	4	21
	Rural	54	829	91	0	0	5	21
	Urban	0	118	882	0	0	0	0
Rampur Tehsil	Total	90	814	28	1	0	62	5
	Rural	86	840	9	0	0	60	5
	Urban	144	462	288	19	0	87	0
Rohru Tehsil	Rural	10	982	1	0	0	N	7
Jubbal Tehsil	Rural	80	807	21	0	0	90	2

N=Negligible.

Note:—When figures of 'Rural' and Urban are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of figures of total, rural and urban areas separately per thousand.

Subsidiary Table E-IV.2—concld.

Distribution of 1,000 *Households living in Census Houses used wholly or partly as dwellings by predominant material of roof*—concld.

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division (Total/Rural/Urban)		Grass, leaves, reeds, thatch, wood or bamboo	Tiles, slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Bricks and lime	Concrete & stone slabs	All other material
1		2	3	4	5	6	7	8
Kotkhai Sub-Tehsil	Rural	24	939	34	0	0	0	3
Theog Tehsil	Total	51	685	35	0	1	218	10
	Rural	39	701	21	0	1	228	10
	Urban	316	329	355	0	0	0	0
Kasumpti Tehsil	Rural	47	343	234	0	0	337	39
Solon Tehsil	Total	88	10	332	75	0	2	493
	Rural	112	11	267	3	0	2	605
	Urban	0	9	568	331	0	0	92
Chaupal Tehsil	Rural	193	646	12	0	0	134	15
Sirmur District	**Total**	*248*	*440*	*65*	*15*	*N*	*9*	*223*
	Rural	*263*	*473*	*48*	*1*	*N*	*9*	*206*
	Urban	*53*	*24*	*287*	*197*	*2*	*0*	*437*
Pachhad Tehsil	Rural	22	437	45	N	N	1	495
Rainka Tehsil	Rural	169	766	25	0	0	25	15
Nahan Tehsil	Total	191	3	168	86	2	0	550
	Rural	320	3	71	0	2	0	604
	Urban	15	2	302	204	2	0	475
Paonta Tehsil	Total	565	306	74	8	0	1	46
	Rural	576	311	69	2	0	1	41
	Urban	290	158	197	158	0	0	197
Kinnaur District*	**Rural**	*611*	*82*	*7*	*0*	*0*	*1*	*299*
Nachar Sub-Division	Rural	711	37	8	0	0	0	244
Kalpa Sub-Division	Rural	148	197	12	0	0	2	641
Poo Sub-Division	Rural	996	2	2	0	0	0	0

*Entirely rural.

N=Negligible.

Note:—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures work out on the basis of figures of total, rural and urban areas separately per thousand.

CHAPTER VI

HOUSEHOLD POPULATION

Chapter VI of the Report on Housing and Establishments deals with household population and the housing accommodation. It analyses the data on housing accommodation. expressed in terms of number of rooms in relation to the size of the household. The analytical study is confined to 20 per cent sample of the households recorded in column 11 of the houselist and the related information about them as recorded in columns 13, 15 and 16 to the size of the household. The analytical households classified by number of members and by number of rooms occupied has been embodied in the Table E-V. The table has been prepared for the Pradesh, districts, tehsils/sub-tehsils/sub-divisions, for rural and urban areas separately. The figures in column 3 of the table are the total number of sample households. The sex-break-up of the total number of members of these sample households as also the total number of rooms in their occupation are shown separately in columns 4, 5 and 6 of the table. All the sample households have been further classified into the following six categories in the table showing under each category the number of households and the number of persons in them, males and females separately.

Households with—

(1) no regular room
(2) one room
(3) two rooms
(4) three rooms
(5) four rooms
(6) five rooms or more.

On the basis of the Table E-V, for comparative study, two subsidiary tables, viz., Subsidiary Table E-V.1 giving distribution of 1,000 Census Households according to number of rooms occupied and Subsidiary Table E-V.2 showing number of persons — males and females — per room and persons per household in each category of household, have also been prepared.

The concepts and definitions of census terms 'household', 'household-population' and 'room', which are the topics of study here, are given below for better appreciation of the analysis of the data collected.

Household—"A household is a group of persons who commonly live together and would take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so".

Household population—"Number of persons residing in a Census Household on the day of visit of the houselister — Males + Females = Total."

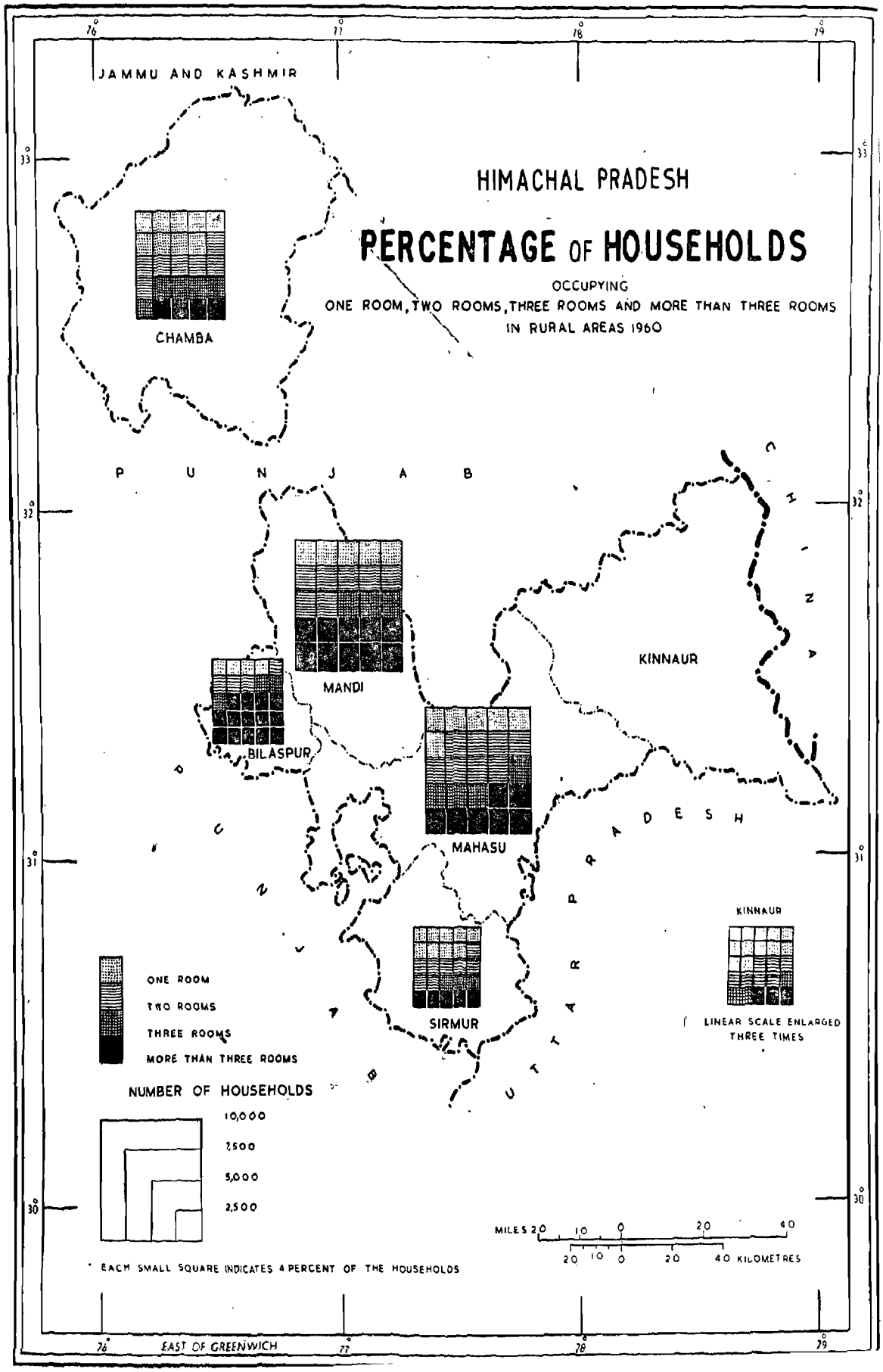
Room—"A room should usually have four walls with a doorway with a roof overhead and should be wide and long enough for a person to sleep in, i.e., it should be at least 6 feet long. Unenclosed verandah, kitchen, store, garage, cattle-shed and latrine which are not ordinarily used for living and sleeping should not be treated as rooms. An enclosed room, however, which is used for living, dining, storing and cooking should be regarded as a room."

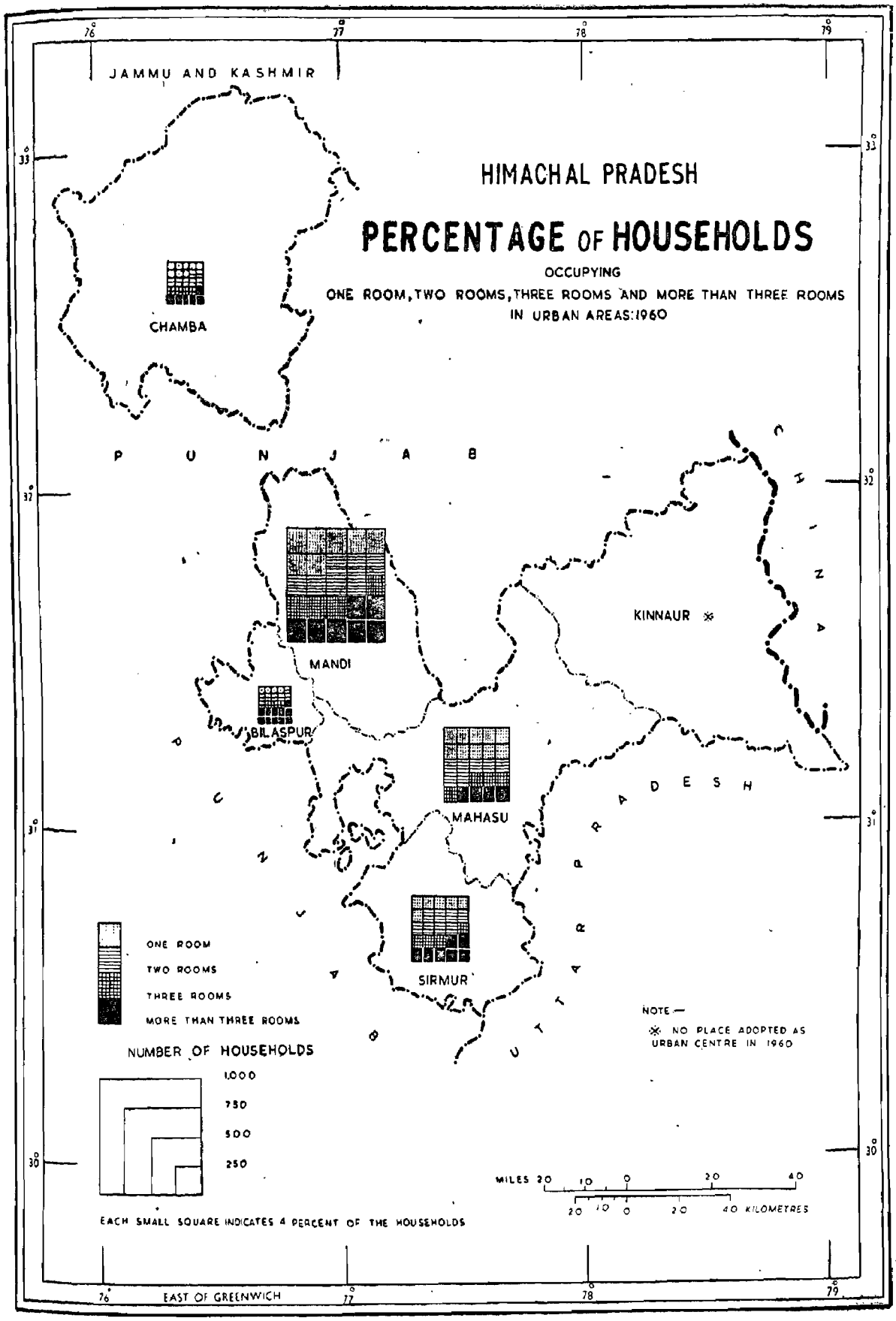
It will be noticed from the definition of a 'room' given above that the data collected about the number of rooms occupied by households is not capable of interpretation in terms of square feet or cubic feet of space per person.

The following instructions had been given to the houselisters for recording the number of rooms in a Census Household keeping in view the definition of a 'room' given:—

"If a Census house is occupied by one Household the enumeration of rooms should be simple.

If a Census House consists of a number of Households the number of rooms occupied by each Household should be entered on each line against the name of the Head of the Household. In cases where more than one Household occupy a single room or share more than one room in such a way that it is not possible to say the number of rooms occupied


HIMACHAL PRADESH
PERCENTAGE OF HOUSEHOLDS
OCCUPYING
ONE ROOM, TWO ROOMS, THREE ROOMS AND MORE THAN THREE ROOMS
IN RURAL AREAS 1960
JAMMU AND KASHMIR
CHAMBA
P U N J A B
MANDI
BILASPUR
KINNAUR
MAHASU
SIRMUR
U T T A R P R A D E S H
KINNAUR
LINEAR SCALE ENLARGED THREE TIMES
ONE ROOM
TWO ROOMS
THREE ROOMS
MORE THAN THREE ROOMS
NUMBER OF HOUSEHOLDS
10,000
7,500
5,000
2,500
EACH SMALL SQUARE INDICATES 4 PERCENT OF THE HOUSEHOLDS
MILES 20 10 0 20 40
20 10 0 20 40 KILOMETRES
EAST OF GREENWICH
76° 77° 78° 79°
33° 32° 31° 30°


HIMACHAL PRADESH
PERCENTAGE OF HOUSEHOLDS
OCCUPYING
ONE ROOM, TWO ROOMS, THREE ROOMS AND MORE THAN THREE ROOMS
IN URBAN AREAS: 1960
JAMMU AND KASHMIR
PUNJAB
UTTAR PRADESH
CHAMBA
MANDI
BILASPUR
KINNAUR ※
MAHASU
SIRMUR
ONE ROOM
TWO ROOMS
THREE ROOMS
MORE THAN THREE ROOMS
NUMBER OF HOUSEHOLDS
1,000
750
500
250
EACH SMALL SQUARE INDICATES 4 PERCENT OF THE HOUSEHOLDS
NOTE —
※ NO PLACE ADOPTED AS URBAN CENTRE IN 1960
MILES 20 10 0 20 40
20 10 0 20 40 KILOMETRES
EAST OF GREENWICH
76° 77° 78° 79°
33° 32° 31° 30°

by each Household, the number of rooms should be given together within brackets as common to both the Households."

No regular room — In cases where more than one Household occupied or shared a single room such Households have been treated as Households with no regular room.

Household according to number of rooms occupied

The Statement VI-1 extracted from Subsidiary Table E-V1 for comparative study gives distribution of 1,000 Census Households according to number of rooms occupied in the Pradesh and its districts.

STATEMENT VI-1

Distribution of 1,000 Census Households according to number of rooms occupied

Union Territory/District	No regular Room	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and more
1	2	3	4	5	6	7
HIMACHAL PRADESH . .	3	258	285	149	137	168
Chamba	17	334	309	187	79	74
Mandi	1	199	297	127	199	177
Bilaspur	1	169	171	114	152	393
Mahasu	N	257	303	171	122	147
Sirmur	0	337	314	151	104	94
Kinnaur	0	484	285	116	51	64

N=Negligible.

The Statement VI-1 reveals that in every thousand Census Households in the Pradesh there are three Census Households which have no regular room, and in the districts the largest number of such households per 1,000 are in Chamba where more of them are to be found in the tehsils of Bhattiyat and Brahmaur. There is no incidence of such households in the districts of Sirmur and Kinnaur. In Mahasu District the incidence is negligible and in Mandi and Bilaspur the incidence is very low.

Census Households with 1 room accommodation after every 1,000 Census Households are 258 in the Pradesh and this proportion has been exceeded in Chamba, Sirmur and Kinnaur Districts only.

Census Households with two room accommodation are 285 after every 1,000 in the Pradesh. It will be noticed that in the distribution of Census Households into six categories according to number of rooms occupied the number of Households with two room accommodation figure at the top in the Pradesh. District-wise speaking this condition obtains in Mandi and Mahasu also. In Chamba, Sirmur and Kinnaur the category of Households with one room accommodation and in Bilaspur the category of Households with accommodation of more than five rooms exceed every other category there.

Census Households with three rooms, four rooms and five rooms and more accommodation in the Pradesh are 149, 137 and 168 respectively after every 1,000 Census Households. Nowhere in the districts or their tehsils/subtehsils/sub-divisions the category of Households with three room accommodation figure at the top in the distribution. In the case of category of Households with four room accommodation, it is only one tehsil, viz., Sarkaghat

in Mandi District where it is on the top of all categories of Households in the tehsil. The category of Households with accommodation of five rooms and more figure at the top in Sub-Tehsil Pangi of Chamba District, all the tehsils of Bilaspur District and Tehsil Arki of Mahasu District.

In the Statement VI-2 is shown distribution of 1,000 Census Households according to the number of rooms occupied in the urban areas. For comparative study similar distribution is given also for the rural areas of the district and tehsils/Sub-tehsils wherein the towns are located.

STATEMENT VI-2

Distribution of 1,000 Census Households according to number of rooms occupied in urban and rural areas of a district and tehsil/sub-tehsil

Union Territory/District/Tehsil/Sub-tehsil	No regular Room	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and more
1	2	3	4	5	6	7
HIMACHAL PRADESH						
RURAL	3	256	285	149	139	168
URBAN	0	290	297	145	104	164
Chamba District						
Rural	*18*	*334*	*309*	*189*	*79*	*71*
Urban	*0*	*325*	*304*	*143*	*79*	*149*
Chamba Tehsil						
Rural	16	274	334	203	84	89
Urban	0	325	304	143	79	149
Mandi District						
Rural	*1*	*195*	*298*	*125*	*205*	*176*
Urban	0	*272*	*287*	*147*	*112*	*182*
Jogindarnagar Tehsil						
Rural	N	273	282	98	182	165
Urban	0	350	358	139	51	102
Mandi Sadar Tehsil						
Rural	2	262	331	174	112	119
Urban	0	278	253	168	95	206
Sundarnagar Tehsil						
Rural	3	222	275	166	177	157
Urban	0	217	323	106	179	175
Bilaspur District						
Rural	*1*	*169*	*165*	*114*	*154*	*397*
Urban	*0*	*160*	*293*	*114*	*140*	*293*
Bilaspur Sadar Tehsil						
Rural	N	129	137	130	128	476
Urban	0	160	293	114	140	293
Mahasu District						
Rural	*N*	*250*	*303*	*173*	*124*	*150*
Urban	*0*	*391*	*303*	*140*	*84*	*82*
Arki Tehsil						
Rural	0	114	172	123	252	339
Urban	0	192	219	68	233	288
Kumharsain Sub-Tehsil						
Rural	0	411	354	143	62	30
Urban	0	706	176	118	0	0
Rampur Tehsil						
Rural	0	207	321	137	158	177
Urban	0	538	327	58	48	29
Theog Tehsil						
Rural	1	407	350	133	65	44
Urban	0	671	250	13	53	13

N=Negligible.

STATEMENT VI-2—*concld.*

Distribution of 1,000 *Census Households according to number of rooms occupied in urban and rural areas of a district and tehsil/sub-tehsil*—concld.

Union Territory/District/Tehsil/ Sub-Tehsil		No regular Room	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and more
1		2	3	4	5	6	7
Mahasu District—contd.							
Solon Tehsil							
	Rural .	0	186	287	236	115	176
	Urban .	0	311	331	210	74	74
Sirmur District							
	Rural .	*0*	*344*	*314*	*150*	*104*	*88*
	Urban .	*0*	*260*	*308*	*165*	*107*	*160*
Nahan Tehsil							
	Rural .	0	303	248	182	130	137
	Urban .	0	240	321	167	107	165
Paonta Tehsil							
	Rural .	0	346	347	113	108	86
	Urban .	0	382	224	158	105	131

N=Negligible.

In the Pradesh the category of Households with two room accommodation is at the top of six categories of Households both in the rural and urban areas. The rural and urban figures for Chamba District show that in both the areas the category of the Households with one room accommodation predominates each of the other categories. There is only one town in Chamba District situated in Chamba Tehsil, and the figures for Chamba District urban and Chamba Tehsil urban are, therefore, the same, showing predominance of the category of Households with one room accommodation. Chamba Tehsil rural, however, shows that the category of the Households with two room accommodation, exceeds each of the other categories.

In Mandi District the rural and urban figures for the district, for two of its tehsils of Jogindarnagar and Sundarnagar, where two towns of the same names are located, reveal that the category of the Households living in two room accommodation stand high to each of the other categories. In the third town of the Mandi District, namely Mandi situated in tehsil of the same name, the category of the Households living in one room accommodation predominates, whereas in rural area of the tehsil the category of the Households living in two room accommodation is at the top.

In Bilaspur District the rural figures for the district as well for its Bilaspur Sadar Tehsil show that the category of Households with accommodation of five rooms and more stands higher than each of other categories. The urban position is different. There the category of Households with two room accommodation and the category of Households living in accommodation of five rooms and more equally share the top status both at the district and the tehsil level.

In Mahasu District the category of Households with two room accommodation heads all the categories in the rural area and in the urban area it is the category of Households with one room accommodation at the top. Individually in the case of towns and the rural areas of their respective tehsils/sub-tehsils in the district, there is similarity in the case of Arki Tehsil rural and urban areas (category of households with accommodation of five rooms and more ranks at the top), Kumharsain sub-tehsil and Theog tehsil rural and urban areas (category of Households with one room accommodation figures high) and Solon Tehsil rural and urban areas (category of

Households with two room accommodation stands at the top). Rampur Tehsil rural and urban figures show disimilarity.

In Sirmur District the rural figures for the category of Households with one room accommodation out classes each of the other categories, and the same is the case in Nahan Tehsil rural, whereas in Paonta Tehsil rural it is the category of Households living in two room accommodation which is at the top. The urban figures for the district, and for the Nahan tehsil show that the category of households with two room accommodation predominates and in Paonta urban the category of households with one room accommodation ranks higher to each of the other categories.

For comparative study of distribution of 1,000 Census Households according to number of rooms occupied in the States/Union Territories and other areas are given in the Statement VI-3.

Largest number of Households per 1,000 Households, with no regular room are to be found in Pondicherry (167 followed by Mysore (106). Andhra Pradesh Lecadive, Minicoy and Amindivi Islands, and Nagaland have recorded nil return in this respect.

In Orissa, Himachal Pradesh, and Laccadive, Minicoy and Amindivi Islands the category of Households in occupation of two room accommodation figures at the top in the distribution of Households according to number of rooms occupied. In the other States/Union Territories and other areas, the category of Households with one room accommodation scores high in the distribution, so much so that in Andhra Pradesh, Gujarat, Madhya Pradesh, Madras, Maharashtra, Rajasthan, West Bengal, Andaman and Nicobar Islands, Delhi, Tripura, Dadra and Nagar Haveli, Nagaland, Pondicherry and Sikkim more than 50 per cent of the Households live in one-room accommodation.

Number of persons per room and number of persons per household

The Statement VI-4 at page 131 with information extracted from the Subsidiary Table E-V 2 compares the proportions of number of persons per room and number of persons per Household for the Pradesh, for rural and urban areas separately.

STATEMENT VI-3

Distribution of 1,000 Census Households according to number of rooms occupied (States/Union Territories)

States/ Union Territories	No regular Room	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and more
1	2	3	4	5	6	7
STATES						
Andhra Pradesh .	0	645	222	71	33	29
Assam . .	2	366	348	150	70	64
Bihar . .	2	363	293	155	83	104
Gujarat . .	3	601	274	70	29	23
Jammu & Kashmir	16	486	234	122	65	77
Kerala . .	14	320	316	180	83	87
Madhya Pradesh .	3	541	276	102	42	36
Madras * . .	38	656	187	58	26	21
Maharashtra .	23	649	227	64	21	16
Mysore . .	106	408	301	108	43	34
Orissa . .	1	319	371	149	87	73
Punjab . .	2	369	308	156	84	81
Rajasthan . .	2	512	249	119	58	60
Uttar Pradesh .	3	333	276	165	101	122
West Bengal .	5	648	218	67	38	24
UNION TERRITORIES AND OTHER AREAS						
Andaman & Nicobar Islands .	13	569	246	107	36	29
Dadra and Nagar Haveli . .	2	711	225	40	13	9
Delhi . .	7	604	239	79	39	32
HIMACHAL PRADESH .	**3**	**258**	**285**	**149**	**137**	**168**
Laccadive, Minicoy and Amindivi Islands .	0	183	381	236	96	104
Manipur . .	8	264	202	189	263	74
Nagaland . .	0	599	288	88	16	9
N. E. F. A. .	2	382	304	147	86	79
Pondicherry* .	167	526	153	59	36	35
SIKKIM . .	N	530	305	81	46	38
Tripura . .	N	681	234	59	18	8

* Horizontal total will be 1000 only when the following per 1000 distribution of Census Households in "No. of rooms not stated" is taken into account :—

State/Union Territory	No. of rooms not stated
Madras	14
Pondicherry . . .	24

N=Negligible.

Taking into consideration the total number of persons and the total number of rooms in Himachal Pradesh according to the houselist, the number of persons per room comes to 1.72. This proportion in the Pradesh rural is 1.73 persons per room and it is 1.57 persons per room in the Pradesh urban. Similarly taking into consideration the total number of persons and the total number of Households in the Pradesh the number of persons per Household is 5.08. In the Pradesh rural this proportion is 5.10 persons per Household and in the Pradesh urban it is 4.66 persons per Household. The proportion of persons per Household is higher in the Pradesh rural like the proportion of persons per room.

In speaking of the different categories of Households by number of rooms occupied, the averages for number of persons per room in the category of Households living in single room accommodation in the Pradesh are 3.77 for the total, 3.83 for the rural and 2.92 for the urban areas. The averages of persons per Household for total, rural and urban areas in this category would remain the same. It will be noticed that the averages for number of persons per room for total, rural and urban areas of the Pradesh go on declining with the increase in the number of rooms occupied by the Households. There are, however, progressive increases in the averages about number of persons per Household for total, rural and urban areas of the Pradesh with the increase in the number of rooms occupied by the Households upto the category of Households living in three room accommodation. The line of progressive increase is dented for total and rural areas of the Pradesh in the category of Households with four room accommodation and thereafter it goes up again.

In the comparison of the Pradesh rural and urban proportions it will be observed that rural proportions are higher in the total count and individually in the first three categories of Households with one room, two room and three room accommodations both for persons per room and persons per Household. In the category of Households with four room accommodation these proportions are higher in the urban areas. In the category of Households with five room accommodation whereas the proportion of persons per room is higher in the Pradesh rural the proportion of persons per Household is higher in the Pradesh urban.

It will be significant to note from the Statement VI-4 that the proportions of the males to the total number of persons per room excepting in one case are higher than that of the females in the classified categories of Households.

The Statement VI-5 at page 132 gives the number of persons, males, females per room and persons per Household in each category of Households in the States and Union Territories of India for total, rural and urban areas separately. In the analysis to be made of the Statement only figures for total are being taken up to ascertain the incidence of over-crowding. Index of over-crowding is more than 2 persons per room.

N.E.F.A., Himachal Pradesh and Manipur are the only units in the Statement VI-5 at page 132 which have an average of less than 2 persons per room. The highest average recorded in this respect is that of Dadra and Nagar Haveli — 3.86 persons per room.

N.E.F.A. has the lowest average of persons per Household — 4.27 persons per Household and the highest recorded is in Laccadive, Minicoy and Amindivi Islands (5.98). These are the highlights about the number of persons per room and the number of persons per Household in the States and the Union Territories of India when the total number of persons, the total number of rooms and the total number of Household are taken into consideration. By categories of Households classified according to rooms occupied the tall and short are as under:—

Category of Households with 1 *room accommodation*—The Households in this category are over-crowded in all the units listed in the Statement VI-5 at page 132. The highest average recorded about number of persons per room is in Dadra and Nagar Haveli (5.01) and the lowest in Himachal Pradesh (3.77). The highest and the lowest average about number of persons per Household are also the same—not to differ in this category.

Category of Households with 2 *room accommodation* — The highest average about number of persons per room has been recorded again in Dadra and Nagar Haveli (3.03),

STATEMENT VI-4

Number of persons, males and females per room and persons per Household in each category of Household (in two places of decimal

Union Territory	Total Rural Urban	Total		1 Room				2 Rooms				3 Rooms				4 Rooms				5 Rooms and more			
		No. of persons per room	No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Himachal Pradesh	Total	1·72	5·08	3·77	2·06	1·71	3·77	2·34	1·20	1·14	4·67	1·80	0·96	0·84	5·41	1·34	0·68	0·66	5·38	1·09	0·55	0·54	7·22
	Rural	1·73	5·10	3·83	2·08	1·75	3·83	2·35	1·19	1·16	4·71	1·81	0·96	0·85	5·43	1·34	0·67	0·67	5·37	1·09	0·55	0·54	7·17
	Urban	1·57	4·66	2·92	1·77	1·15	2·92	2·03	1·19	0·84	4·06	1·64	0·90	0·74	4·91	1·39	0·75	0·64	5·55	1·06	0·57	0·49	8·06

STATEMENT VI-5

Number of persons, males, females per room and persons per Household in each category of Household in two places of decimal — (States/Union Territories)

States/Union Territories	Total / Rural / Urban	Total		1 Room				2 Rooms				3 Rooms				4 Rooms				5 Rooms and above			
		No. of persons per room	No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
STATES																							
Andhra Pradesh	Total	2·95	4·82	4·39	2·21	2·18	4·39	2·57	1·30	1·27	5·14	1·96	0·99	0·97	5·88	1·62	0·82	0·80	6·49	1·08	0·55	0·53	7·41
	Rural	3·05	4·79	4·42	2·23	2·19	4·42	2·57	1·31	1·26	5·13	1·96	1·00	0·96	5·89	1·61	0·82	0·79	6·43	1·05	0·53	0·52	7·21
	Urban	2·54	5·00	4·24	2·13	2·11	4·24	2·59	1·31	1·28	5·18	1·96	0·99	0·97	5·87	1·67	0·84	0·83	6·66	1·15	0·58	0·57	7·91
Assam	Total	2·42	5·34	4·17	2·24	1·93	4·17	2·55	1·35	1·20	5·10	2·09	1·10	0·99	6·26	1·82	0·96	0·86	7·26	1·42	0·76	0·66	9·02
	Rural	2·43	5·36	4·23	2·23	2·00	4·23	2·55	1·34	1·21	5·11	2·08	1·09	0·99	6·25	1·81	0·95	0·86	7·25	1·41	0·75	0·66	8·93
	Urban	2·37	5·11	3·65	2·30	1·35	3·65	2·51	1·44	1·07	5·03	2·15	1·21	0·94	6·44	1·85	1·08	0·77	7·39	1·50	0·86	0·64	9·87
Bihar	Total	2·30	5·57	4·11	2·08	2·03	4·11	2·63	1·32	1·31	5·25	2·10	1·07	1·03	6·30	1·81	0·92	0·89	7·24	1·42	0·72	0·70	9·18
	Rural	2·29	5·58	4·13	2·07	2·06	4·13	2·62	1·31	1·31	5·23	2·09	1·06	1·03	6·28	1·80	0·91	0·89	7·22	1·42	0·72	0·70	9·15
	Urban	2·43	5·49	4·00	2·24	1·76	4·00	2·75	1·47	1·28	5·51	2·20	1·16	1·04	6·60	1·87	0·99	0·88	7·47	1·44	0·79	0·65	9·57
Gujarat	Total	3·27	5·30	4·91	2·53	2·38	4·91	2·80	1·44	1·36	5·61	2·03	1·04	0·99	6·09	1·66	0·84	0·82	6·64	1·21	0·63	0·58	7·49
	Rural	3·49	5·35	5·04	2·58	2·46	5·04	2·83	1·45	1·38	5·66	2·05	1·04	1·01	6·15	1·68	0·85	0·83	6·70	1·21	0·62	0·59	7·16
	Urban	2·76	5·15	4·49	2·37	2·12	4·49	2·73	1·42	1·31	5·45	1·98	1·01	0·97	5·95	1·64	0·84	0·80	6·57	1·22	0·64	0·58	7·73
Jammu & Kashmir	Total	2·66	5·60	4·85	2·58	2·27	4·85	2·75	1·48	1·27	5·50	2·06	1·10	0·96	6·17	1·73	0·92	0·81	6·93	1·35	0·72	0·63	8·64
	Rural	2·83	5·51	4·89	2·60	2·29	4·89	2·75	1·48	1·27	5·50	2·05	1·10	0·95	6·15	1·73	0·92	0·81	6·93	1·37	0·73	0·64	8·54
	Urban	2·05	6·12	4·48	2·45	2·03	4·48	2·76	1·47	1·29	5·53	2·08	1·10	0·98	6·24	1·73	0·92	0·81	6·94	1·32	0·70	0·62	8·80
Kerala	Total	2·44	5·85	4·91	2·42	2·49	4·91	2·91	1·44	1·47	5·81	2·11	1·04	1·07	6·33	1·71	0·85	0·86	6·85	1·21	0·60	0·61	7·53
	Rural	2·47	5·79	4·90	2·41	2·49	4·90	2·89	1·42	1·47	5·77	2·10	1·04	1·06	6·29	1·69	0·84	0·85	6·77	1·22	0·61	0·61	7·39
	Urban	2·28	6·25	4·97	2·45	2·52	4·97	3·05	1·51	1·54	6·09	2·20	1·09	1·11	6·59	1·82	0·90	0·92	7·26	1·19	0·59	0·60	8·03
Madhya Pradesh	Total	2·68	4·82	4·08	2·09	1·99	4·08	2·54	1·30	1·24	5·08	2·01	1·03	0·98	6·02	1·69	0·86	0·83	6·76	1·31	0·68	0·63	8·23
	Rural	2·75	4·84	4·15	2·11	2·04	4·15	2·56	1·30	1·26	5·12	2·02	1·03	0·99	6·05	1·70	0·86	0·84	6·80	1·32	0·67	0·65	8·10
	Urban	2·33	4·70	3·64	1·98	1·66	3·64	2·44	1·29	1·15	4·89	1·94	1·02	0·92	5·83	1·64	0·85	0·79	6·56	1·27	0·69	0·58	8·63

Madras*	Total	3·03	4·62	4·21	2·10	2·11	4·21	2·58	1·30	1·28	5·16	1·91	0·96	0·95	5·73	1·59	0·80	0·79	6·34	1·16	0·61	0·55	7·55
	Rural	3·17	4·57	4·23	2·11	2·12	4·23	2·58	1·30	1·28	5·16	1·90	0·96	0·94	5·71	1·58	0·80	0·78	6·31	1·11	0·56	0·55	7·09
	Urban	2·70	4·76	4·13	2·08	2·05	4·13	2·58	1·30	1·28	5·17	1·92	0·97	0·95	5·77	1·60	0·81	0·79	6·39	1·21	0·65	0·56	8·04
Maha-rashtra	Total	3·38	5·12	4·67	2·42	2·25	4·67	2·80	1·42	1·38	5·59	2·15	1·09	1·06	6·46	1·78	0·90	0·88	7·12	1·42	0·76	0·66	8·74
	Rural	3·50	5·11	4·69	2·36	2·33	4·69	2·81	1·41	1·40	5·63	2·21	1·10	1·11	6·62	1·81	0·90	0·91	7·25	1·41	0·73	0·68	8·41
	Urban	3·12	5·15	4·61	2·57	2·04	4·61	2·75	1·45	1·30	5·51	2·06	1·08	0·98	6·17	1·73	0·90	0·83	6·93	1·43	0·78	0·65	9·06
Mysore	Total	2·82	5·42	4·67	2·37	2·30	4·67	2·74	1·40	1·34	5·48	2·14	1·10	1·04	6·43	1·80	0·92	0·88	7·22	1·32	0·69	0·63	8·35
	Rural	2·92	5·42	4·74	2·40	2·34	4·74	2·75	1·40	1·35	5·50	2·16	1·10	1·06	6·49	1·84	0·94	0·90	7·35	1·33	0·69	0·64	8·36
	Urban	2·52	5·41	4·39	2·26	2·13	4·39	2·71	1·38	1·33	5·42	2·09	1·07	1·02	6·27	1·74	0·89	0·85	6·96	1·31	0·69	0·62	8·33
Orissa	Total	2·07	4·81	3·82	1·91	1·91	3·82	2·28	1·14	1·14	4·56	1·78	0·90	0·88	5·34	1·50	0·76	0·74	6·01	1·25	0·64	0·61	7·87
	Rural	2·08	4·83	3·86	1·91	1·95	3·86	2·28	1·14	1·14	4·56	1·78	0·90	0·88	5·34	1·50	0·76	0·74	6·01	1·26	0·64	0·62	7·90
	Urban	1·99	4·54	3·42	1·89	1·53	3·42	2·29	1·21	1·08	4·58	1·76	0·92	0·84	5·27	1·48	0·79	0·69	5·92	1·14	0·64	0·50	7·54
Punjab	Total	2·47	5·71	4·62	2·52	2·10	4·62	2·81	1·50	1·31	5·62	2·13	1·14	0·99	6·40	1·75	0·93	0·82	7·00	1·29	0·69	0·60	8·32
	Rural	2·46	5·84	4·78	2·58	2·20	4·78	2·84	1·52	1·32	5·67	2·14	1·14	1·00	6·42	1·76	0·94	0·82	7·03	1·32	0·70	0·62	8·39
	Urban	2·47	5·21	4·18	2·35	1·83	4·18	2·70	1·44	1·26	5·40	2·09	1·12	0·97	6·27	1·71	0·91	0·80	6·83	1·18	0·64	0·54	7·97
Rajasthan	Total	2·65	5·30	4·53	2·39	2·14	4·53	2·70	1·42	1·28	5·41	2·06	1·08	0·98	6·19	1·72	0·91	0·81	6·87	1·24	0·66	0·58	8·15
	Rural	2·74	5·32	4·61	2·42	2·19	4·61	2·71	1·42	1·29	5·43	2·06	1·09	0·97	6·19	1·72	0·91	0·81	6·88	1·28	0·67	0·61	8·16
	Urban	2·28	5·21	4·04	2·18	1·86	4·04	2·66	1·39	1·27	5·33	2·06	1·07	0·99	6·17	1·71	0·89	0·82	6·85	1·15	0·61	0·54	8·11
Uttar Pradesh	Total	2·02	5·15	3·99	2·13	1·86	3·99	2·43	1·28	1·15	4·86	1·83	0·96	0·87	5·48	1·55	0·81	0·74	6·22	1·22	0·64	0·58	7·64
	Rural	1·98	5·16	3·99	2·11	1·88	3·99	2·40	1·26	1·14	4·80	1·81	0·95	0·86	5·43	1·55	0·81	0·74	6·18	1·23	0·64	0·59	7·60
	Urban	2·34	5·03	3·99	2·23	1·76	3·99	2·62	1·41	1·21	5·25	1·97	1·05	0·92	5·91	1·65	0·88	0·77	6·62	1·14	0·62	0·52	8·14
West Bengal	Total	3·29	5·28	4·34	2·32	2·02	4·34	3·02	1·57	1·45	6·04	2·56	1·34	1·22	7·67	2·15	1·14	1·01	8·60	1·80	0·98	0·82	11·57
	Rural	3·38	5·38	4·51	2·31	2·20	4·51	3·02	1·55	1·47	6·04	2·57	1·33	1·24	7·72	2·15	1·13	1·02	8·60	1·83	0·97	0·86	11·53
	Urban	3·04	4·97	3·88	2·38	1·50	3·88	3·02	1·64	1·38	6·04	2·51	1·36	1·15	7·54	2·15	1·18	0·97	8·59	1·74	1·00	0·74	11·64
UNION TERRITORIES AND OTHER AREAS																							
Andaman & Nicobar Islands	Total	2·72	4·73	4·46	2·73	1·73	4·45	2·35	1·41	0·94	4·70	1·75	1·03	0·72	5·26	1·39	0·77	0·62	5·56	1·11	0·63	0·48	7·24
	Rural	2·79	4·84	4·77	2·89	1·88	4·77	2·36	1·44	0·92	4·71	1·66	0·95	0·71	4·97	1·33	0·71	0·62	5·32	1·01	0·55	0·46	6·28
	Urban	2·50	4·35	3·49	2·25	1·24	3·49	2·33	1·33	1·00	4·65	2·34	1·54	0·80	7·03	1·58	0·94	0·64	6·32	1·29	0·78	0·51	9·41
Delhi	Total	3·03	5·08	4·19	2·31	1·88	4·19	2·87	1·53	1·43	5·75	2·25	1·33	1·02	6·74	1·91	1·05	0·86	7·64	1·62	0·91	0·71	9·54
	Rural	2·58	6·25	4·44	2·46	1·98	4·44	3·01	1·61	1·40	6·03	2·33	1·25	1·08	6·98	2·01	1·06	0·95	8·04	1·66	0·89	0·77	10·60
	Urban	3·10	4·95	4·17	2·30	1·87	4·19	2·86	1·52	1·34	5·71	2·22	1·22	1·00	6·67	1·88	1·05	0·83	7·52	1·60	0·92	0·68	9·13
HIMACHAL PRADESH	**Total**	**1·72**	**5·08**	**3·77**	**2·06**	**1·71**	**3·77**	**2·34**	**1·20**	**1·14**	**4·67**	**1·80**	**0·96**	**0·84**	**5·41**	**1·34**	**0·68**	**0·66**	**5·38**	**1·09**	**0·55**	**0·54**	**7·22**
	Rural	**1·73**	**5·10**	**3·83**	**2·08**	**1·75**	**3·83**	**2·35**	**1·19**	**1·16**	**4·71**	**1·81**	**0·96**	**0·85**	**5·43**	**1·34**	**9·67**	**0·67**	**5·37**	**1·09**	**0·55**	**0·54**	**7·17**
	Urban	**1·57**	**4·66**	**2·92**	**1·77**	**1·15**	**2·92**	**2·03**	**1·19**	**0·84**	**4·06**	**1·64**	**0·90**	**0·74**	**4·91**	**1·39**	**0·75**	**0·64**	**5·55**	**1·06**	**0 57**	**0·49**	**8·06**
L. M. and A. Islands	Total*	2·29	5·98	4·28	2·10	2·18	4·28	2·84	1·40	1·44	5·69	2·06	1·02	1·04	6·19	1·85	0·95	0·90	7·39	1·48	0·77	0·71	8·23
	Rural	2·29	5·98	4·28	2·10	2·18	4·28	2·84	1·40	1·44	5·69	2·06	1·02	1·04	6·19	1·85	0·95	0·90	7·39	1·48	0·77	0·71	8·23
	Urban	**0**	**0**	**0**	**0**	**0**	**0**	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Manipur	Total	1·95	5·25	4·87	2·42	2·45	4·87	2·45	1·21	1·24	4·89	1·62	0·79	0·83	4·85	1·42	0·70	0·72	5·69	1·35	0·68	0·67	7·01
	Rural	1·97	5·22	4·90	2·42	2·48	4·90	2·46	1·21	1·25	4·91	1·61	0·78	0·83	4·83	1·41	0·70	0·71	5·63	1·33	0·66	0·67	6·80
	Urban	1·71	5·58	3·80	2·36	1·44	3·80	2·31	1·19	1·12	4·63	1·66	0·80	0·86	4·97	1·58	0·78	0·80	6·30	1·44	0·77	0·67	8·21
Tripura	Total	3·61	5·21	4·61	2·37	2·24	4·61	2·89	1·50	1·39	5·78	2·61	1·37	1·24	7·82	2·28	1·21	1·07	9·11	2·13	1·16	0·97	12·52
	Rural	3·66	5·20	4·64	2·38	2·26	4·64	2·89	1·50	1·39	5·78	2·59	1·36	1·23	7·76	2·25	1·19	1·06	9·01	2·22	1·19	1·03	12·54
	Urban	3·20	5·40	4·24	2·26	1·98	4·24	2·88	1·54	1·34	5·77	2·75	1·45	1·30	8·25	2·39	1·28	1·11	9·57	1·87	1·06	0·81	12·44

STATEMENT VI-5—*concld.*

Number of persons, males, females per room and persons per Household in each category of Household in two places of decimal—(States/Union Territories)—concld.

States/Union Territories	Total Rural Urban	Total		1 Room				2 Rooms				3 Rooms				4 Rooms				5 Rooms and above			
		No. of persons per room	No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dadra & Nagar Haveli	Total	3·86	5·39	5·01	2·49	2·52	5·01	3·03	1·54	1·49	6·06	2·36	1·24	1·12	7·08	2·02	1·13	0·89	8·07	1·02	0·53	0·49	6·63
	Rural	3·86	5·39	5·01	2·49	2·52	5·01	3·03	1·54	1·49	6·06	2·36	1·24	1·12	7·08	2·02	1·13	0·89	8·07	1·02	0·53	0·49	6·63
	Urban	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N.E.F.A.	Total	1·96	4·27	3·88	2·59	1·29	3·88	2·00	1·32	0·68	4·01	1·30	0·84	0·46	3·91	1·13	0·71	0·42	4·50	1·52	1·14	0·38	7·61
	Rural	1·96	4·27	3·88	2·59	1·29	3·88	2·00	1·32	0·68	4·01	1·30	0·84	0·46	3·91	1·13	0·71	0·42	4·50	1·52	1·14	0·38	7·61
	Urban	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pondicherry*	Total	2·99	5·13	4·42	2·19	2·23	4·42	2·87	1·43	1·44	5·74	2·19	1·07	1·12	6·56	1·78	0·84	0·94	7·12	1·43	0·66	0·77	8·63
	Rural	3·25	4·96	4·43	2·19	2·24	4·43	2·86	1·44	1·42	5·71	2·15	1·05	1·10	6·45	1·78	0·89	0·89	7·10	1·27	0·61	0·66	8·52
	Urban	2·47	5·65	4·39	2·19	2·20	4·39	2·91	1·42	1·49	5·81	2·23	1·08	1·15	6·69	1·78	0·80	0·98	7·13	1·57	0·69	0·88	8·72
Nagaland	Total	2·97	4·61	4·29	2·16	2·13	4·29	2·48	1·34	1·14	4·95	1·64	0·83	0·81	4·92	1·68	0·88	0·80	6·73	1·46	0·76	0·70	8·50
	Rural	2·96	4·59	4·29	2·14	2·15	4·29	2·45	1·31	1·14	4·90	1·63	0·82	0·81	4·88	1·67	0·86	0·81	6·68	1·54	0·78	0·76	8·76
	Urban	3·08	5·15	4·39	2·67	1·72	4·39	3·16	2·08	1·08	6·32	1·99	1·06	0·93	5·98	1·77	1·01	0·76	7·06	1·14	0·67	0·47	7·31
Sikkim	Total	3·09	5·62	5·12	2·65	2·47	5·12	2·87	1·49	1·38	5·74	2·10	1·10	1·00	6·29	1·82	0·94	0·88	7·27	1·20	0·70	0·50	8·06
	Rural	3·18	5·68	5·19	2·68	2·51	5·19	2·91	1·50	1·41	5·82	2·14	1·11	1·03	6·42	1·84	0·94	0·90	7·36	1·25	0·72	0·53	8·32
	Urban	1·84	4·51	3·66	2·05	1·61	3·66	2·14	1·27	0·87	4·27	1·59	0·94	0·65	4·78	1·53	0·88	0·65	6·10	0·97	0·61	0·36	6·82

*Average number of persons per Household returned under the category of "Rooms not stated" are as follows :—

State/Union Territory	Total Rural Urban	Average No. of persons per household under "rooms not stated"
Madras	T	4·35
	R	4·25
	U	5·34
Pondicherry	T	4·05
	R	4·04
	U	4·06

and the lowest in N.E.F.A. (2.00). The highest and the lowest averages about number of persons per Household are also in these two units respectively. By number of persons per room in this category. N.E.F.A. is the only unit of India listed in the Statement VI-5 where there is no overcrowding.

Category of Households with 3 room accommodation — Ten units in this category of Households have recorded average of less than two persons per room, which is indicative of no over-crowding; and the lowest average in this respect is that of N.E.F.A. (1.31). The averages in the other units are more than 2 persons per room, denoting over-crowding and the highest average registered is in Tripura (2.61). The highest average about the number of persons per Household in the category is in Tripura (7.82) and the lowest in N.E.F.A. (3.91).

Category of Households with 4 room accommodation — In this category West Bengal, Tripura and Dadra & Nagar Haveli have shown averages of over crowding in terms of persons per room. The averages of persons in these units per room are 2.15, 2.28 and 2.02 respectively. In the other units no over-crowding is indicated. The highest average about number of persons per Household in the category has been recorded in Tripura (9.11), where the average about number of persons per room is also the highest (2.28).

Category of Households with 5 rooms and more accommodation — The Union Territory of Tripura has shown the highest average of persons per room (2.13) and the highest average of persons per Household (12.52) in this category. Except Tripura there is no over-crowding in the other units listed in the Statement in the light of averages about number of persons per room under this category.

It is to be noticed from the Statement VI-5 that in the States/Union Territories listed, the average number of persons per room goes on declining with the increase in the number of rooms occupied by Census Households excepting, in case of N.E.F.A. and Nagaland; and with a few exceptions, the average number of persons per Household goes on increasing. The exceptions are Himachal Pradesh (3 Rooms to 4 Rooms), Manipur (2 Rooms to 3 Rooms), Dadra and Nagar Haveli (4 Rooms to 5 Rooms and more), and N.E.F.A. (2 Rooms to 3 Rooms).

Over-crowding

The most important conclusion to be drawn from the analytical study of the data in this Chapter is about over-crowding. Index of over-crowding is more than two persons per room. By this yardstick, in the Pradesh as a whole, there is no over-crowding as will be observed from column 3 of the Statement VI-6 which shows that in the rural areas 1.73 persons have one room and in the urban areas 1.57 persons live in one room. This is the picture if the total number of persons in all the Households and the total number of rooms in the Pradesh are taken into account irrespective of the classification of the Households in the various categories by the number of rooms occupied. Perspective of over-crowding in the different categories of Households is different in each case. Households with one room accommodation and two room accommodation are over-crowded, particularly the Households with one room accommodation. Households with three room, four room and five room and more accommodation do not show any over-crowding at all.

District-wise speaking, there is no over-crowding in any of the districts in the categories of Households with three room, four room and five room and more accommodation as is revealed in the Statement VI-6. In the category of Households with one room accommodation, excepting in the rural areas of Bilaspur District there is over-crowding in the districts. The over-crowding is more pronounced in the rural areas of Chamba, Sirmur and Kinnaur Districts where more than four persons live in one room.

In the category of Households with two room accommodation the areas where there is no over-crowding are the urban areas of Chamba and Mahasu Districts and the rural and urban areas of Bilaspur District.

It will be noticed from column 3 of the Statement VI-6 that the Households in rural areas of Chamba and Sirmur Districts and the Households in Kinnaur District are over-crowded if the total number of persons in all the Households and the total number of rooms

STATEMENT VI-6

Number of persons per room and persons per Household in each category of Households

Union Territory/ District	Total Rural Urban	Total		1 Room		2 Rooms		3 Rooms		4 Rooms		5 Rooms & more	
		No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household	No. of persons per room	No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14
HIMACHAL PRADESH	**Total**	**1·72**	**5·08**	**3·77**	**3·77**	**2·34**	**4·67**	**1·80**	**5·41**	**1·34**	**5·38**	**1·09**	**7·22**
	Rural	**1·73**	**5·10**	**3·83**	**3·83**	**2·35**	**4·71**	**1·81**	**5·43**	**1·34**	**5·37**	**1·09**	**7·17**
	Urban	**1·57**	**4·66**	**2·92**	**2·92**	**2·03**	**4·06**	**1·64**	**4·91**	**1·39**	**5·55**	**1·06**	**8·06**
Chamba	Total	2·13	4·94	4·01	4·01	2·37	4·74	1·82	5·45	1·44	5·78	1·28	7·81
	Rural	2·15	4·96	4·04	4·04	2·40	4·79	1·83	5·48	1·44	5·75	1·29	7·75
	Urban	1·62	4·47	3·05	3·05	1·77	3·54	1·48	4·45	1·58	6·33	1·18	8·49
Mandi	Total	1·66	5·26	3·83	3·83	2·25	4·50	1·87	5·61	1·36	5·42	1·15	7·71
	Rural	1·67	5·27	3·92	3·92	2·26	4·52	1·87	5·62	1·35	5·40	1·15	7·65
	Urban	1·62	5·06	2·89	2·89	2·12	4·24	1·83	5·48	1·54	5·18	1·12	8·55
Bilaspur	Total	1·06	4·45	1·84	1·84	1·50	3·01	1·33	3·98	1·06	4·24	0·92	6·41
	Rural	1·05	4·44	1·83	1·83	1·49	2·97	1·33	4·00	1·06	4·23	0·92	6·37
	Urban	1·12	4·59	2·14	2·14	1·73	3·44	1·23	3·69	1·09	4·35	0·90	7·53
Mahasu	Total	1·81	5·06	3·68	3·68	2·27	4·55	1·89	5·68	1·38	5·51	1·17	7·41
	Rural	1·82	5·11	3·75	3·75	2·29	4·58	1·91	5·72	1·39	5·55	1·17	7·40
	Urban	1·63	3·85	2·79	2·79	1·90	3·80	1·51	4·52	1·03	4·12	1·02	7·66
Sirmur	Total	2·24	5·45	4·25	4·25	2·97	5·94	1·81	5·43	1·53	6·13	1·16	7·38
	Rural	2·29	5·48	4·30	4·30	3·02	6·03	1·82	5·45	1·53	6·13	1·17	7·35
	Urban	1·73	5·05	3·38	3·38	2·34	4·69	1·71	5·14	1·54	6·17	1·10	7·63
Kinnaur	Rural	2·63	5·41	4·80	4·80	2·66	5·32	1·92	5·76	1·61	6·44	1·29	9·01

there in each district are taken into consideration. By similar calculation the other districts and the Pradesh as a whole do not show over-crowding. By the application of this very calculation to the tehsils/sub-tehsils/sub-divisions of the districts the statistics (Subsidiary Table E-V.2) reveal that in all the tehsils/sub-tehsils, excepting Pangi sub-tehsil and urban area of Chamba tehsil, in Chamba District, there is over-crowding. There is over-crowding in rural areas of Mandi Sadar Tehsil of Mandi District. In rural areas of sub-tehsil Kumharsain and tehsil Solon, in rural and urban areas of tehsil Theog, and in Chaupal tehsil of Mahasu District there is over-crowding too. In Sirmur District there is no over-crowding only in Pachhad tehsil and the urban areas of Nahan and Paonta tehsils. In Kinnaur District excepting in Poo Sub-Division, there is over-crowding. There is, however, no over-crowding in the tehsils of Bilaspur District.

The study of over-crowding would be completed with the revealation of the number of Households in which there is over-crowding. The Statement VI-6 in this Chapter has shown that there is no over-crowding at all in the categories of Households with three room, four room and five room and more accommodations, in the Pradesh as a whole as well as in the six districts. There is over-crowding in the Households with 1 room and 2 room accommodation as already analysed, excepting one district. The extent of Households with over-crowded accommodations can be discerned from the Statement VI-7 showing distribution of 1,000 Census Households according to number of rooms occupied.

STATEMENT VI-7

Distribution of 1,000 Census Households according to number of rooms occupied

Union Territory/District	Total Rural Urban	No regular Room	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and more
1	2	3	4	5	6	7	8
HIMACHAL PRADESH	**Total**	**3**	**258**	**285**	**149**	**137**	**168**
	Rural	**3**	**256**	**285**	**149**	**139**	**168**
	Urban	**0**	**290**	**297**	**145**	**104**	**164**
Chamba . . .	Total	17	334	309	187	79	74
	Rural	18	334	309	189	79	71
	Urban	0	325	304	143	79	149
Mandi . . .	Total	1	199	297	127	199	177
	Rural	1	195	298	125	205	176
	Urban	0	272	287	147	112	182
Bilaspur . . .	Total	1	169	171	114	152	393
	Rural	1	169	165	114	154	397
	Urban	0	160	293	114	140	293
Mahasu . . .	Total	N	257	303	171	122	147
	Rural	N	250	303	173	124	150
	Urban	0	391	303	140	84	82
Sirmur . . .	Total	0	337	314	151	104	94
	Rural	0	344	314	150	104	88
	Urban	0	260	308	165	107	160
Kinnaur . . .	Rural	0	484	285	116	51	64

N=Negligible

Note—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures of total, rural and urban areas separately per thousand.

In Himachal Pradesh rural, out of every 1,000 Households, there are 149, 139 and 168 (total 456) Households with three room, four room and five room and more accommodation respectively (Statement VI-7) where there is no over-crowding (Statement VI-6). Likewise there are 145, 104 and 164 (total 413) Households in Himachal Pradesh — urban. In other words in Himachal Pradesh rural after every 1,000 Census Households 544 (1,000—456 = 544) Households are over-crowded. Likewise in Himachal Pradesh — urban 587

(1,000 — 413 = 587) Households are over-crowded. All this shows that in the majority of the Households in the Pradesh there is over-crowding or rather dearth of requisite housing accommodation. By relative conjunction of the figures of the Statements VI-6 and VI-7 the districtwise rural and urban statistics are as shown in statement VI-8.

STATEMENT VI-8

Proportions of no over-crowding and over-crowding in every 1,000 Census Housholds in the rural and urban areas of the districts

District Chamba

Rural

Households showing no over-crowding after every 1,000 Census Households

3 Rooms	4 Rooms	5 Rooms & more	Total
189	79	71	339

Households showing over-crowding after every 1,000 Census Households

1,000 — 339 = 661

Urban

Households showing no over-crowding after every 1,000 Census Households

2 Rooms	3 Rooms	4 Rooms	5 Rooms and more	Total
304	143	79	149	675

Households showing over-crowding after every 1,000 Census Households

1,000 — 675 = 325

District Mandi

Rural

Households showing no over-crowding after every 1,000 Census Households

3 Rooms	4 Rooms	5 Rooms and more	Total
125	205	176	506

Households showing over-crowding after every 1,000 Census Households

1,000 — 506 = 494

Urban

Households showing no over-crowding after every 1,000 Census Households

3 Rooms	4 Rooms	5 Rooms and more	Total
147	112	182	441

Households showing over-crowding after every 1,000 Census Households

1,000 — 441 = 559

STATEMENT VI-8—*contd.*

District Bilaspur

Rural

Households showing no over-crowding after every 1,000 Census Households

1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and more	Total
169	165	114	154	397	999

Households showing over-crowding after every 1,000 Census Households

1,000 — 999 = 1

Urban

Households showing no over-crowding after every 1,000 Census Households

2 Rooms	3 Rooms	4 Rooms	5 Rooms & more	Total
293	114	140	293	840

Households showing over-crowding after every 1,000 Census Households

1,000 — 840 = 160

District Mahasu

Rural

Households showing no over-crowding after every 1,000 Census Households

3 Rooms	4 Rooms	5 Rooms & more	Total
173	124	150	447

Households showing over-crowding after every 1,000 Census Households

1,000 — 447 = 553

Urban

Households showing no over-crowding after every 1,000 Census Households

2 Rooms	3 Rooms	4 Rooms	5 Rooms & more	Total
303	140	84	82	609

Households showing over-crowding after every 1,000 Census Households

1,000 — 609 = 391

District Sirmur

Rural

Households showing no over-crowding after every 1,000 Census Households

3 Rooms	4 Rooms	5 Rooms and more	Total
150	104	88	342

Households showing over-crowding after every 1,000 Census Households

1,000 — 342 = 658

Urban

Households showing no over-crowding after every 1,000 Census Households

3 Rooms	4 Rooms	5 Rooms and more	Total
165	107	160	432

Households showing over-crowding after every 1,000 Census Households

1,000 — 432 = 568

District Kinnaur

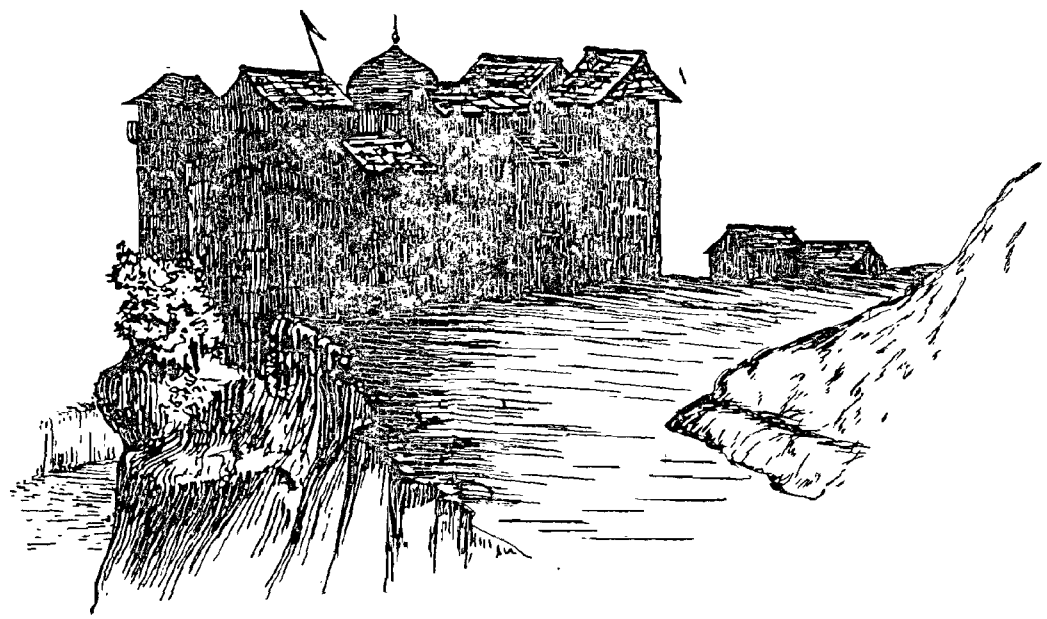
Households showing no over-crowding after every 1,000 Census Households

3 Rooms	4 Rooms	5 Rooms and more	Total
116	51	64	231

Households showing no over-crowding after every 1,000 Census Households

1,000 — 231 = 769

In the above analysis the Pradesh figures for rural areas have shown that there is over-crowding in 544 Households after every 1,000 Households and likewise the figures for the urban areas show that there is over-crowding in 587 Households. In other words more than 50 per cent of the Households in the Pradesh are putting up with the want of proper housing accommodation and the over-crowding stands registered in one room and two room tenements.



A House on the cliff: Rampur Bushahr.
From "In the Himalayas and on the Indian Plains" by C. F. Gordon Cumming.

Subsidiary Table E-V.1

Distribution of 1,000 Census Households according to number of rooms occupied

(Based on 20 per cent sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division		No regular Room	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and more
1		2	3	4	5	6	7
HIMACHAL PRADESH	**TOTAL**	3	258	285	149	137	168
	RURAL	3	256	285	149	139	168
	URBAN	0	290	297	145	104	164
Chamba District	Total	*17*	*334*	*309*	*187*	*79*	*74*
	Rural	*18*	*334*	*309*	*189*	*79*	*71*
	Urban	*0*	*325*	*304*	*143*	*79*	*149*
Chaurah Tehsil	Rural	2	410	274	179	71	64
Pangi Sub-Tehsil	Rural	0	150	233	132	186	299
Chamba Tehsil	Total	14	280	330	196	83	97
	Rural	16	274	334	203	84	89
	Urban	0	325	304	143	79	149
Bhattiyat Tehsil	Rural	36	354	298	200	71	41
Brahmaur Sub-Tehsil	Rural	29	315	387	172	64	33
Mandi District	Total	*1*	*199*	*297*	*127*	*199*	*177*
	Rural	*1*	*195*	*298*	*125*	*205*	*176*
	Urban	*0*	*272*	*287*	*147*	*112*	*182*
Jogindarnagar Tehsil	Total	N	277	285	100	175	163
	Rural	N	273	282	98	182	165
	Urban	0	350	358	139	51	102
Mandi Sadar Tehsil	Total	2	264	319	173	110	13
	Rural	2	262	331	174	112	119
	Urban	0	278	253	168	95	206
Sarkaghat Tehsil	Rural	1	87	248	81	355	228
Chichot Tehsil	Rural	0	197	352	129	159	163
Sundarnagar Tehsil	Total	2	222	282	157	177	160
	Rural	3	222	275	166	177	157
	Urban	0	217	323	106	179	175
Karsog Tehsil	Rural	3	139	310	133	188	227
Bilaspur District	Total	*1*	*169*	*171*	*114*	*152*	*393*
	Rural	*1*	*169*	*165*	*114*	*154*	*397*
	Urban	*0*	*160*	*293*	*114*	*140*	*293*
Ghamarwin Tehsil	Rural	2	198	185	103	171	341
Bilaspur Sadar Tehsil	Total	N	131	152	129	129	459
	Rural	N	129	137	130	128	476
	Urban	0	160	293	114	140	293
Mahasu District	Total	*N*	*257*	*303*	*171*	*122*	*147*
	Rural	*N*	*250*	*303*	*173*	*124*	*150*
	Urban	*0*	*391*	*303*	*140*	*84*	*82*
Arki Tehsil	Total	0	118	174	120	251	337
	Rural	0	114	172	123	252	339
	Urban	0	192	219	68	233	288

N=Negligible.

Note—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of figures of total, rural and urban areas separately per thousand.

Subsidiary Table E-V.1—concld.

Distribution of 1,000 *Census Households according to number of rooms occupied*—concld.

(Based on 20 per cent sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division		No regular Room	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and more
1		2	3	4	5	6	7
Seoni Sub-Tehsil	Rural	0	225	348	227	104	96
Kumharsain Sub-Tehsil	Total	0	416	350	143	61	30
	Rural	0	411	354	143	62	30
	Urban	0	706	176	118	0	0
Rampur /Tehsil	Total	0	229	321	132	151	167
	Rural	0	207	321	137	158	177
	Urban	0	538	327	58	48	29
Rohru Tehsil	Rural	0	80	320	281	136	183
Jubbal Tehsil	Rural	0	267	305	188	107	133
Kotkhai Sub-Tehsil	Rural	0	274	334	130	124	138
Theog Tehsil	Total	1	418	346	127	65	43
	Rural	1	407	350	133	65	44
	Urban	0	671	250	13	53	13
Kasumpti Tehsil	Rural	1	186	281	191	138	203
Solon Tehsil	Total	0	213	297	231	106	153
	Rural	0	186	287	236	115	176
	Urban	0	311	331	210	74	74
Chaupal Tehsil	Rural	0	496	322	106	48	28
Sirmur District	**Total**	*0*	*337*	*314*	*151*	*104*	*94*
	Rural	*0*	*344*	*314*	*150*	*104*	*88*
	Urban	*0*	*260*	*308*	*165*	*107*	*160*
Pachhad Tehsil	Rural	0	169	285	216	177	153
Rainka Tehsil	Rural	0	489	326	121	35	29
Nahan Tehsil	Total	0	276	279	176	120	149
	Rural	0	303	248	182	130	137
	Urban	0	240	321	167	107	165
Paonta Tehsil	Total	0	347	343	115	108	87
	Rural	0	346	347	113	108	86
	Urban	0	382	224	158	105	131
Kinnaur District*	**Rural**	*0*	*484*	*285*	*116*	*51*	*64*
Nachar Sub-Division	Rural	0	505	271	134	50	40
Kalpa Sub-Division	Rural	0	645	252	59	23	..
Poo Sub-Division	Rural	0	304	329	157	81	129

*Entirely rural.

N=Negligible.

Note—When figures of 'Rural' and 'Urban' are added up these will not tally with the figures against 'Total' because they are proportionate figures worked out on the basis of figures of total, rural and urban areas separately per thousand.

Subsidiary Table E-V.2

Number of persons, males and females per room and persons per Household in each category of Households (in two places of decimal)

(Based on 20 per cent sample)

Union Territory/ District/Tehsil/ Sub-Tehsil/Sub-Division	*Total		1 Room				2 Rooms				3 Rooms				4 Rooms				5 Rooms & More			
	No. of persons per room	No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
HIMACHAL PRADESH																						
TOTAL	1·72	5·08	3·77	2·06	1·71	3·77	2·34	1·20	1·14	4·67	1·80	0·96	0·84	5·41	1·34	0·68	0·66	5·38	1·09	0·55	0·54	7·22
RURAL	1·73	5·10	3·83	2·08	1·75	3·83	2·35	1·19	1·16	4·71	1·81	0·96	0·85	5·43	1·34	0·67	0·67	5·37	1·09	0·55	0·54	7·17
URBAN	1·57	4·66	2·92	1·77	1·15	2·92	2·03	1·19	0·84	4·06	1·64	0·90	0·74	4·91	1·39	0·75	0·64	5·55	1·06	0·57	0·49	8·06
Chamba District																						
Total	*2·13*	*4·94*	*4·01*	*2·12*	*1·89*	*4·01*	*2·37*	*1·22*	*1·15*	*4·74*	*1·82*	*0·98*	*0·84*	*5·45*	*1·44*	*0·71*	*0·73*	*5·78*	*1·28*	*0·67*	*0·61*	*7·81*
Rural	*2·15*	*4·96*	*4·04*	*2·13*	*1·91*	*4·04*	*2·40*	*1·22*	*1·18*	*4·79*	*1·83*	*0·98*	*0·85*	*5·48*	*1·44*	*0·71*	*0·73*	*5·75*	*1·29*	*0·68*	*0·61*	*7·75*
Urban	*1·62*	*4·47*	*3·05*	*1·76*	*1·29*	*3·05*	*1·77*	*1·19*	*0·58*	*3·54*	*1·48*	*0·77*	*0·71*	*4·45*	*1·58*	*0·84*	*0·74*	*6·33*	*1·18*	*0·60*	*0·58*	*8·49*
Chaurah Tehsil																						
Rural	2·13	4·58	3·68	1·86	1·82	3·68	2·06	0·99	1·07	4·12	1·80	1·04	0·76	5·40	1·28	0·61	0·67	5·15	1·68	0·99	0·69	9·49
Pangi Sub-Tehsil																						
Rural	1·83	6·90	4·00	2·34	1·66	5·00	2·88	1·59	1·29	5·76	2·40	1·25	1·15	7·22	1·69	0·82	0·87	6·77	1·36	0·71	0·65	9·17
Chamba Tehsil																						
Total	2·05	5·10	4·36	2·30	2·06	4·36	2·40	1·28	1·12	4·81	1·73	0·89	0·84	5·21	1·39	0·66	0·73	5·59	1·25	0·59	0·66	7·60
Rural	2·12	5·19	4·59	2·39	2·20	4·59	2·48	1·29	1·19	4·97	1·76	0·90	0·86	5·28	1·56	0·72	0·84	5·49	1·18	0·55	0·63	7·39
Urban	1·62	4·47	3·05	1·76	1·29	3·05	1·76	1·19	0·57	3·53	1·48	0·77	0·71	4·44	1·58	0·84	0·74	6·33	1·17	0·59	0·58	8·49
Bhattiyat Tehsil																						
Rural	3·12	4·61	3·88	2·08	1·80	3·88	2·42	1·20	1·22	4·84	1·75	0·89	0·86	5·25	1·39	0·75	0·64	5·60	0·70	0·38	0·32	7·09
Brahmaur Sub-Tehsil																						
Rural	2·53	5·43	4·45	2·50	1·95	4·45	2·64	1·41	1·23	5·29	2·16	1·20	0·96	6·48	1·93	0·94	0·99	7·74	0·98	0·54	0·44	6·46

Mandi District																					
Total	*1·66*	*5·26*	*3·83*	*2·10*	*1·73*	*3·83*	*2·25*	*1·15*	*1·10*	*4·50*	*1·87*	*0·96*	*0·91*	*5·61*	*1·36*	*0·66*	*0·70*	*5·42*	*1·15*	*0·57*	*0·58*	*7·75*
Rural	*1·67*	*5·27*	*3·92*	*2·14*	*1·78*	*3·92*	*2·26*	*1·15*	*1·11*	*4·52*	*1·87*	*0·96*	*0·91*	*5·62*	*1·35*	*0·65*	*0·70*	*5·40*	*1·15*	*0·57*	*0·58*	*7·61*
Urban	*1·62*	*5·06*	*2·89*	*1·74*	*1·15*	*2·89*	*2·12*	*1·21*	*0·91*	*4·24*	*1·83*	*1·01*	*0·82*	*5·48*	*1·54*	*0·86*	*0·68*	*6·18*	*1·12*	*0·62*	*0·50*	*8·55*
Jogindarnagar Tehsil																					
Total	1·70	5·00	3·86	2·14	1·72	3·86	2·24	1·03	1·21	4·49	1·87	0·95	0·92	8·74	0·98	0·28	0·70	3·93	1·29	0·55	0·74	8·60
Rural	1·70	5·04	3·95	2·16	1·79	3·95	2·26	1·03	1·23	4·52	1·87	0·95	0·92	5·63	1·01	0·28	0·73	3·88	1·29	0·55	0·74	8·63
Urban	1·72	4·16	2·54	1·81	0·73	2·54	1·96	1·08	0·88	3·97	1·78	0·91	0·87	5·36	1·82	1·07	0·75	7·28	1·02	0·60	0·42	7·42
Mandi Sadar Tehsil																					
Total	2·00	5·45	3·95	2·03	1·92	3·95	2·44	1·27	1·17	4·89	2·04	1·07	0·97	6·12	1·62	0·82	0·80	6·50	1·25	0·68	0·57	8·09
Rural	2·21	5·53	4·15	2·09	2·06	4·15	2·47	1·28	1·19	4·94	2·06	1·09	0·97	6·27	1·62	0·81	0·81	6·48	1·34	0·72	0·62	8·14
Urban	1·54	5·03	2·98	1·73	1·25	2·98	2·09	1·25	0·84	4·19	1·75	0·98	0·77	5·26	1·64	0·92	0·72	6·57	1·03	0·58	0·45	8·04
Sarkaghat Tehsil																					
Rural	1·50	5·64	3·08	1·68	1·40	3·08	2·24	1·15	1·09	4·49	1·71	0·89	0·82	5·13	1·41	0·74	0·67	5·66	1·21	0·61	0·60	8·03
Chichot Tehsil																					
Rural	1·69	5·19	4·83	2·94	1·89	4·83	2·11	1·06	1·05	4·23	1·86	0·97	0·89	5·58	1·47	0·72	0·75	5·89	0·95	0·46	0·49	6·70
Sundarnagar Tehsil																					
Total	1·68	5·16	3·33	1·77	1·56	3·33	2·28	1·21	1·07	4·57	1·72	0·91	0·81	5·18	1·46	0·74	0·72	5·87	1·15	0·59	0·56	7·94
Rural	1·66	5·10	3·40	1·79	1·61	3·40	2·28	1·21	1·07	4·37	1·68	0·89	0·79	5·05	1·48	0·74	0·74	5·92	1·09	0·56	0·53	7·47
Urban	1·74	5·54	2·91	1·66	1·25	2·91	2·23	1·21	1·02	4·47	2·09	1·15	0·94	6·28	1·39	0·75	0·64	5·57	1·40	0·74	0·66	10·32
Karsog Tehsil																					
Rural	1·33	4·65	3·04	1·67	1·37	3·04	2·04	1·10	0·94	4·08	1·78	0·79	0·99	5·34	1·10	0·56	0·54	4·41	0·89	0·44	0·45	6·24
Bilaspur District																					
Total	*1·06*	*4·45*	*1·84*	*1·24*	*0·60*	*1·84*	*1·50*	*0·83*	*0·67*	*3·01*	*1·33*	*0·69*	*0·64*	*3·98*	*1·06*	*0·53*	*0·53*	*4·24*	*0·92*	*0·46*	*0·46*	*6·41*
Rural	*1·05*	*4·44*	*1·83*	*1·23*	*0·60*	*1·83*	*1·49*	*0·81*	*0·68*	*2·97*	*1·33*	*0·69*	*0·64*	*4·00*	*1·06*	*0·53*	*0·53*	*4·23*	*0·92*	*0·46*	*0·46*	*6·37*
Urban	*1·12*	*4·59*	*2·14*	*1·49*	*0·65*	*2·14*	*1·73*	*1·07*	*0·66*	*3·46*	*1·23*	*0·68*	*0·55*	*3·69*	*1·09*	*0·57*	*0·52*	*4·35*	*0·90*	*0·46*	*0·44*	*7·53*
Ghamarwin Tehsil																					
Rural	1·03	3·98	1·47	1·03	0·44	1·47	1·22	0·69	0·53	2·44	1·24	0·63	0·61	3·74	1·01	0·48	0·53	4·04	0·93	0·45	0·48	6·32
Bilaspur Sadar Tehsil																					
Total	1·08	5·03	2·53	1·61	0·92	2·53	1·96	1·03	0·93	3·93	1·40	0·75	0·65	4·22	1·14	0·60	0·54	4·56	0·90	0·47	0·43	6·48
Rural	1·08	5·07	2·58	1·63	0·95	2·58	1·98	1·05	0·93	3·96	1·42	0·75	0·67	4·27	1·14	0·60	0·54	4·32	0·86	0·45	0·41	6·41
Urban	1·12	4·59	2·14	1·49	0·65	2·14	1·72	1·07	0·65	3·45	1·22	0·67	0·55	3·68	1·08	0·56	0·52	4·34	0·90	0·46	0·44	7·53
Mahasu District																					
Total	*1·81*	*5·06*	*3·68*	*2·04*	*1·64*	*3·68*	*2·27*	*1·22*	*1·05*	*4·55*	*1·89*	*1·01*	*0·88*	*5·68*	*1·38*	*0·74*	*0·64*	*5·51*	*1·17*	*0·60*	*0·57*	*7·41*
Rural	*1·82*	*5·11*	*3·75*	*2·06*	*1·69*	*3·75*	*2·29*	*1·23*	*1·06*	*4·58*	*1·91*	*1·02*	*0·89*	*5·72*	*1·39*	*0·74*	*0·65*	*5·55*	*1·17*	*0·60*	*0·57*	*7·40*
Urban	*1·63*	*3·85*	*2·79*	*1·78*	*1·01*	*2·79*	*1·90*	*1·08*	*0·82*	*3·80*	*1·51*	*0·86*	*0·65*	*4·52*	*1·03*	*0·55*	*0·48*	*4·12*	*1·02*	*0·57*	*0·45*	*7·66*

Subsidiary Table E-V. 2—concld.

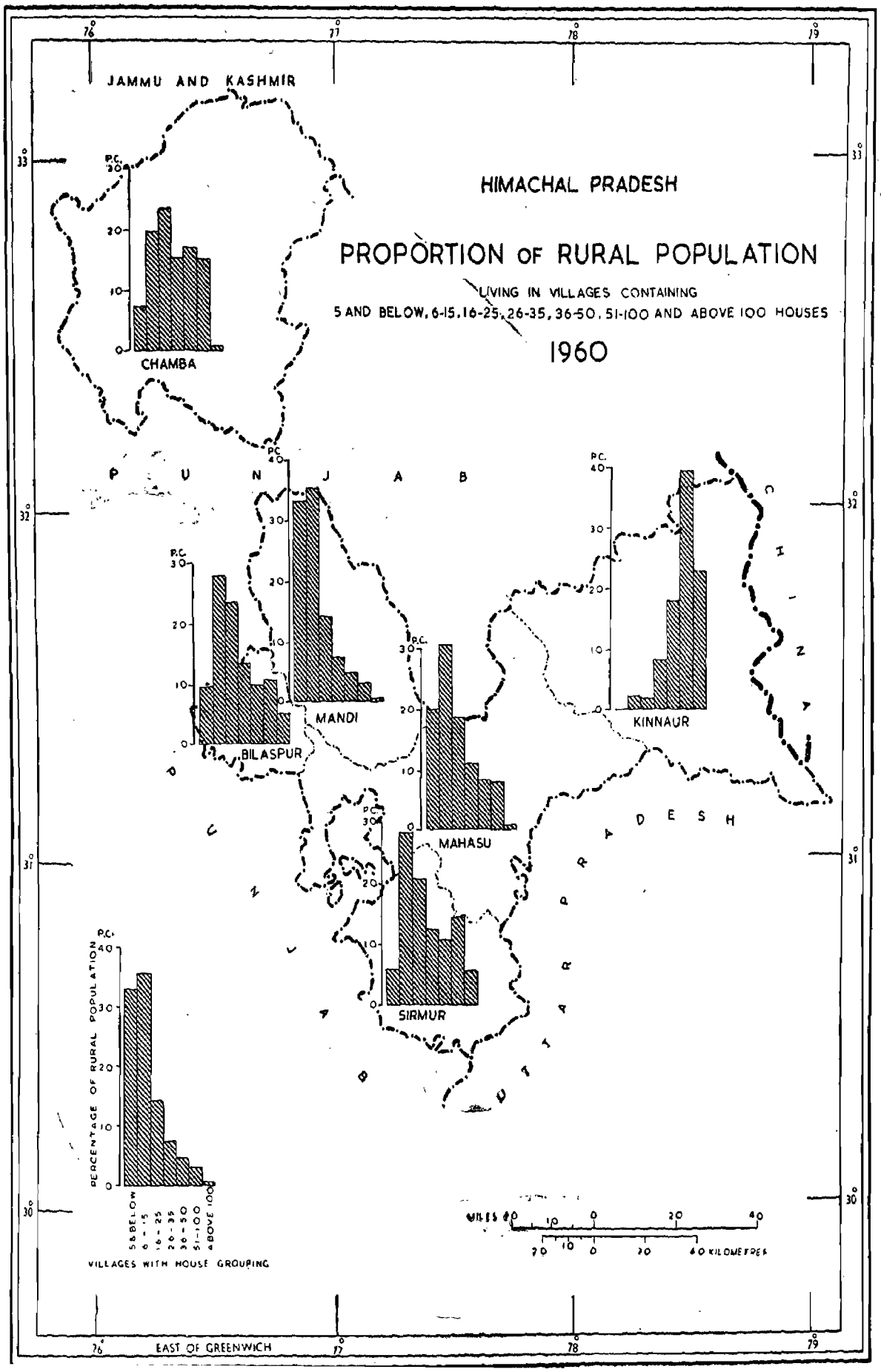
Number of persons, males and females per room and persons per Household in each category of Households (in two places of decimal)—contd.

Union Territory/ District/Tehsil/ Sub-Tehsil/Sub-Division	*Total		1 Room				2 Rooms				3 Rooms				4 Rooms				5 Rooms and more			
	No. of persons per room	No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household	Persons	Males	Females	Average No. of persons per household
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Arki Tehsil																						
Total	1·14	4·55	3·31	1·51	1·80	3·31	1·56	0·89	0·67	3·12	1·51	0·79	0·72	4·53	0·90	0·55	0·35	3·62	1·00	0·50	0·50	6·41
Rural	1·13	4·55	3·09	1·50	1·59	3·09	1·57	0·90	0·67	3·15	1·51	0·80	0·71	4·55	0·90	0·55	0·35	3·61	1·01	0·51	0·50	6·46
Urban	1·14	4·35	6·14	1·57	4·57	6·14	1·31	0·66	0·65	2·62	1·26	0·60	0·66	3·80	0·91	0·51	0·40	3·64	0·73	0·36	0·37	5·19
Seoni Sub-Tehsil																						
Rural	1·61	4·40	2·86	1·63	1·23	2·86	2·11	1·18	0·93	4·23	1·60	0·81	0·79	4·80	1·05	0·74	0·31	4·22	1·06	0·60	0·46	7·89
Kumharsain Sub-Tehsil																						
Total	2·67	5·24	4·19	2·47	1·72	4·19	2·39	0·94	1·45	4·79	2·41	1·25	1·16	7·25	1·91	0·91	1·00	7·65	1·42	0·94	0·48	1·01
Rural	2·69	5·30	4·28	2·50	1·78	4·28	2·42	0·94	1·48	4·85	2·43	1·25	1·18	7·29	1·91	0·91	1·00	7·65	1·42	0·94	0·48	1·01
Urban	1·33	2·00	1·41	1·41	0	1·41	1·16	1·00	0·16	2·33	1·66	1·16	0·50	5·00	0	0	0	0	0	0	0	0
Rampur Tehsil																						
Total	1·91	5·83	4·10	2·20	1·90	4·10	2·59	1·37	1·22	5·18	2·33	1·39	0·94	6·99	1·55	0·80	0·75	6·22	1·17	0·60	0·57	8·19
Rural	1·91	6·00	4·43	2·27	2·16	4·43	2·64	1·39	1·25	5·29	2·35	1·39	0·96	7·05	1·56	0·80	0·76	6·25	1·15	0·58	0·57	8·06
Urban	1·97	3·54	2·37	1·82	0·55	2·37	1·85	1·08	0·77	3·70	1·66	1·16	0·50	5·00	1·16	0·70	0·46	4·60	2·28	1·84	0·44	19·00
Rohru Tehsil																						
Rural	1·77	6·10	3·85	2·25	1·60	3·85	2·42	1·42	1·00	4·85	2·05	1·05	1·00	6·17	1·81	0·90	0·91	7·27	1·13	0·59	0·54	8·31
Jubbal Tehsil																						
Rural	1·79	5·23	3·88	2·03	1·85	3·88	2·08	1·22	0·86	4·17	1·68	0·82	0·86	5·04	1·54	0·70	0·84	6·15	2·37	1·14	1·23	3·72
Kotkhai Sub-Tehsil																						
Rural	1·84	5·13	3·71	1·94	1·77	3·71	2·19	1·12	1·07	4·38	1·96	1·00	0·96	5·88	1·63	0·80	0·83	6·55	1·11	0·55	0·56	7·77
Theog Tehsil																						
Total	2·18	4·53	3·25	1·81	1·44	3·25	2·37	1·23	1·14	4·75	1·99	1·00	0·99	5·98	1·68	0·88	0·80	6·75	1·01	0·51	0·50	7·56
Rural	2·16	4·55	3·26	1·78	1·48	3·26	2·36	1·22	1·14	4·73	1·99	1·00	0·99	5·97	1·70	0·88	0·82	6·81	0·98	0·49	0·49	7·38
Urban	2·72	4·09	3·13	2·21	0·92	3·13	2·68	1·55	1·13	5·36	2·66	1·66	1·00	8·00	1·25	0·68	0·57	5·00	3·50	3·50	0	21·00

Kasumpti Tehsil																					
Rural	1·26	4·90	2·43	1·54	0·89	2·43	1·64	0·88	0·76	3·28	1·43	0·79	0·64	4·30	1·38	0·72	0·66	4·94	0·85	0·42	0·43	5·95
Solon Tehsil																					
Total	1·99	4·58	2·71	1·64	1·07	2·71	2·02	1·13	0·89	4·04	1·54	0·84	0·70	4·64	1·32	0·69	0·63	5·29	3·08	1·56	1·52	7·61
Rural	2·12	4·77	2·80	1·65	1·15	2·80	2·06	1·14	0·92	4·12	1·56	0·84	0·72	4·69	1·37	0·72	0·65	5·49	4·12	2·10	2·02	7·58
Urban	1·56	3·86	2·54	1·60	0·94	2·54	1·88	1·06	0·82	3·77	1·48	0·82	0·66	4·46	1·05	0·53	0·52	4·20	1·00	0·48	0·52	7·84
Chaupal Tehsil																					
Rural	3·23	5·85	4·85	2·60	2·25	4·85	3·03	1·66	1·37	6·07	2·85	1·66	1·19	8·57	1·70	0·94	0·76	6·80	1·55	0·82	0·73	9·00
Sirmur District																					
Total	*2·24*	*5·45*	*4·25*	*2·34*	*1·91*	*4·25*	*2·97*	*1·40*	*1·57*	*5·94*	*1·81*	*1·00*	*0·81*	*5·43*	*1·53*	*0·79*	*0·74*	*6·13*	*1·16*	*0·61*	*0·55*	*7·38*
Rural	*2·29*	*5·48*	*4·30*	*2·37*	*1·93*	*4·30*	*3·02*	*1·41*	*1·61*	*6·03*	*1·82*	*1·00*	*0·82*	*5·45*	*1·53*	*0·79*	*0·74*	*6·13*	*1·17*	*0·62*	*0·55*	*7·35*
Urban	*1·73*	*5·05*	*3·38*	*1·91*	*1·47*	*3·38*	*2·34*	*1·31*	*1·03*	*4·69*	*1·71*	*0·93*	*0·78*	*5·14*	*1·54*	*0·80*	*0·74*	*6·17*	*1·10*	*0·58*	*0·52*	*7·63*
Pachhad Tehsil																					
Rural	1·40	4·24	2·73	1·52	1·21	2·73	1·82	0·97	0·85	3·65	1·43	0·74	0·69	4·31	1·28	0·63	0·65	4·97	0·99	0·51	0·48	6·08
Rainka Tehsil																					
Rural	3·55	6·49	4·60	2·56	2·04	4·60	4·53	1·62	2·91	9·07	2·27	1·24	1·03	6·81	1·69	0·86	0·83	6·77	1·23	0·70	0·53	7·66
Nahan Tehsil																					
Total	1·93	5·38	4·01	2·22	1·79	4·01	2·45	1·37	1·08	4·91	1·55	0·99	0·56	4·67	1·69	0·89	0·80	6·78	1·32	0·68	0·64	8·53
Rural	2·08	5·56	4·40	2·45	1·95	4·40	2·56	1·44	1·12	5·12	1·48	1·02	0·41	4·31	1·75	0·93	0·82	7·00	1·57	0·79	0·78	9·34
Urban	1·74	5·14	3·33	1·84	1·49	3·33	2·34	1·30	1·04	4·69	1·33	0·73	0·60	5·21	1·61	0·81	0·80	6·44	1·28	0·69	0·59	7·51
Paonta Tehsil																					
Total	2·23	5·36	4·44	2·40	2·04	4·44	2·34	1·49	0·85	4·69	2·07	1·11	0·96	6·23	1·89	1·03	0·86	7·17	1·21	0·64	0·57	8·23
Rural	2·25	5·39	4·48	2·41	2·07	4·48	2·34	1·48	0·86	4·69	2·10	1·13	0·97	6·31	1·81	0·93	0·88	7·26	1·22	0·66	0·56	8·32
Urban	1·68	4·47	3·51	2·13	1·38	3·51	2·32	1·35	0·97	4·64	1·55	0·77	0·78	4·66	1·12	0·68	0·44	4·50	0·94	0·36	0·58	6·70
Kinnaur District**																					
Rural	*2·63*	*5·41*	*4·80*	*2·29*	*2·51*	*4·80*	*2·66*	*1·25*	*1·41*	*5·32*	*1·92*	*1·19*	*0·73*	*5·76*	*1·61*	*0·84*	*0·77*	*6·44*	*1·29*	*0·69*	*0·60*	*9·01*
Nachar Sub-Division																					
Rural	2·37	4·58	4·14	1·88	2·26	4·14	1·72	0·61	1·11	3·44	2·27	1·16	1·11	6·81	1·47	0·75	0·72	5·90	1·24	0·60	0·64	8·68
Kalpa Sub-Division																					
Rural	3·98	6·28	5·48	2·75	2·73	5·48	3·31	1·67	1·64	6·62	2·74	1·44	1·30	8·24	1·95	1·04	0·91	7·81	2·42	1·18	1·24	16·70
Poo Sub-Division																					
Rural	1·98	5·28	4·21	1·87	2·34	4·21	2·80	1·35	1·45	5·60	1·35	1·10	0·25	4·06	2·11	1·09	1·02	6·33	1·02	0·57	0·45	7·85

*Excludes persons with no room.

**Entirely rural.


JAMMU AND KASHMIR
HIMACHAL PRADESH
PROPORTION OF RURAL POPULATION
LIVING IN VILLAGES CONTAINING
5 AND BELOW, 6-15, 16-25, 26-35, 36-50, 51-100 AND ABOVE 100 HOUSES
1960
CHAMBA
MANDI
BILASPUR
MAHASU
KINNAUR
SIRMUR
PUNJAB
UTTAR PRADESH
P.C.
PERCENTAGE OF RURAL POPULATION
5 & BELOW
6 - 15
16 - 25
26 - 35
36 - 50
51 - 100
ABOVE 100
VILLAGES WITH HOUSE GROUPING
MILES
KILOMETRES
EAST OF GREENWICH
76°
77°
78°
79°
33°
32°
31°
30°

PART II

HOUSING AND ESTABLISHMENT TABLES

E-I—Census Houses and the Occupied

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Total No. of Census houses	Census Houses vacant at the time of house-listing	Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings
1	2	3	4	5	6	7
HIMACHAL PRADESH . . .	**Total**	**489,341**	**62,911**	**238,566**	**3,461**	**18,782**
	Rural	**469,448**	**60,864**	**227,688**	**2,988**	**17,545**
	Urban	**19,893**	**2,047**	**10,878**	**473**	**1,237**
I. CHAMBA DISTRICT . . .	TOTAL	*72,112*	*8,877*	*33,819*	*306*	*3,488*
	RURAL	*69,995*	*8,707*	*32,739*	*289*	*3,455*
	URBAN	*2,117*	*170*	*1,080*	*17*	*33*
1 Chaurah Tehsil	Total	21,002	2,470	9,826	91	1,065
	Rural	21,002	2,470	9,826	91	1,065
	Urban	..	..	..	..	..
2 Pangi Sub-Tehsil	Total	4,069	855	1,137	6	459
	Rural	4,069	855	1,137	6	459
	Urban	..	..	..	..	..
3 Chamba Tehsil	Total	20,403	3,038	10,204	102	882
	Rural	18,286	2,868	9,124	85	849
	Urban	2,117	170	1,080	17	33
4 Bhattiyat Tehsil	Total	20,602	1,542	8,985	102	898
	Rural	20,602	1,542	8,985	102	898
	Urban	..	..	..	..	..
5 Brahmaur Sub-Tehsil . . .	Total	6,036	972	3,667	5	184
	Rural	6,036	972	3,667	5	184
	Urban	..	..	..	..	..
II. MANDI DISTRICT . . .	TOTAL	*157,536*	*10,862*	*70,069*	*1,052*	*4,457*
	RURAL	*150,371*	*10,346*	*66,269*	*839*	*3,875*
	URBAN	*7,165*	*516*	*3,800*	*213*	*582*
1 Jogindarnagar Tehsil . . .	Total	27,429	1,695	12,978	234	670
	Rural	26,384	1,636	12,463	169	604
	Urban	1,045	59	515	65	66
2 Mandi Sadar Tehsil . . .	Total	37,887	1,822	16,012	266	876
	Rural	33,888	1,521	13,708	190	572
	Urban	3,999	301	2,304	76	304
3 Sarkaghat Tehsil	Total	39,296	975	15,612	185	844
	Rural	39,296	975	15,612	185	844
	Urban	..	..	..	..	..
4 Chichot Tehsil	Total	25,378	3,978	10,231	121	860
	Rural	25,378	3,978	10,231	121	860
	Urban	..	..	..	..	..
5 Sundarnagar Tehsil . . .	Total	15,164	850	7,743	177	705
	Rural	13,043	694	6,762	105	493
	Urban	2,121	156	981	72	212
6 Karsog Tehsil	Total	12,382	1,542	7,493	69	502
	Rural	12,382	1,542	7,493	69	502
	Urban	..	..	..	..	

uses to which they are put

Census houses used as

Hotels, Sarais, Dharam-shalas, Tourist homes and Inspection houses	Shops excluding Eating houses	Business houses and Officer	Factories, workshops and worksheds	Schools and other Educational institutions including training classes, Coaching and Shop classes	Restaurants, sweetmeat shops and Eating places	Places of Entertainment and community gathering (Panchayat Ghar)	Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries etc.	Others	
8	9	10	11	12	13	14	15	16	
1,636	3,541	1,633	19,469	1,591	627	6,378	517	130,199	
1,408	1,897	1,117	18,797	1,487	403	6,087	408	128,759	
258	1,644	516	672	104	224	291	109	1,440	
383	*553*	*219*	*3,481*	*252*	*75*	*1,343*	*82*	*18,934*	I
350	*545*	*173*	*3,383*	*240*	*66*	*1,271*	*70*	*18,707*	
33	*308*	*46*	*98*	*12*	*9*	*72*	*12*	*227*	
44	104	27	1,087	48	..	254	14	5,972	1
44	104	27	1,087	48	..	254	14	5,972	
..	..	..	..	..	..	..	..	..	
29	4	18	279	21	..	100	5	1,156	2
29	4	18	279	21	..	100	5	1,156	
..	..	..	..	..	..	..	..	..	
86	475	87	1,007	74	27	522	25	3,874	3
53	167	41	909	62	18	450	13	3,647	
33	308	46	98	12	9	72	12	227	
151	235	61	801	92	48	277	28	7,382	4
151	235	61	801	92	48	277	28	7,382	
..	..	..	..	..	..	..	..	..	
73	35	26	307	17	..	190	10	550	5
73	35	26	307	17	..	190	10	550	
..	..	..	..	..	..	..	..	..	
336	*1,061*	*464*	*7,332*	*451*	*250*	*1,309*	*125*	*59,768*	II
257	*596*	*270*	*7,076*	*427*	*157*	*1,189*	*92*	*58,978*	
79	*465*	*194*	*256*	*24*	*93*	*120*	*33*	*790*	
55	168	100	1,250	82	69	107	27	9,994	1
48	130	70	1,224	76	42	102	22	9,798	
7	38	30	26	6	27	5	5	196	
123	547	178	1,696	88	67	376	33	15,803	2
71	159	58	1,547	78	24	302	17	15,641	
52	388	120	149	10	43	74	16	162	
65	134	60	947	103	21	138	16	20,196	3
65	134	60	947	103	21	138	16	20,196	
..	..	..	..	..	..	..	..	..	
32	74	39	2,294	77	19	326	15	7,312	4
32	74	39	2,294	77	19	326	15	7,312	
..	..	..	..	..	..	..	..	..	
36	78	57	578	47	41	163	17	4,672	5
16	39	13	497	39	18	122	5	4,240	
20	39	44	81	8	23	41	12	432	
25	60	30	567	54	33	199	17	1,791	6
25	60	30	567	54	33	199	17	1,791	
..	..	..	..	..	..	..	..	..	

E-I—Census Houses and the

Occupied

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Total No. of Census houses	Census Houses vacant at the time of house listing	Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings
1	2	3	4	5	6	7
III. BILASPUR DISTRICT	TOTAL	*43,502*	*4,196*	*33,123*	*466*	*2,211*
	RURAL	*41,227*	*3,735*	*31,999*	*396*	*1,999*
	URBAN	*2,275*	*461*	*1,124*	*70*	*221*
1 Ghamarwin Tehsil	Total	24,651	2,294	19,068	272	934
	Rural	24,651	2,294	19,068	272	934
	Urban	..	..	..	..	..
2 Bilaspur Sadar Tehsil	Total	18,851	1,902	14,055	194	1,277
	Rural	16,576	1,441	12,931	124	1,056
	Urban	2,275	461	1,124	70	221
IV. MAHASU DISTRICT	TOTAL	*112,176*	*21,879*	*62,069*	*1,192*	*5,072*
	RURAL	*107,647*	*21,324*	*59,607*	*1,058*	*4,879*
	URBAN	*4,529*	*555*	*2,462*	*134*	*193*
1 Arki Tehsil	Total	13,947	747	7,046	148	836
	Rural	13,407	652	6,766	128	803
	Urban	540	95	280	20	33
2 Seoni Sub-Tehsil	Total	5,015	446	3,736	87	266
	Rural	5,015	446	3,736	87	266
	Urban	..	..	..	..	..
3 Kumharsain Sub-Tehsil	Total	7,980	2,130	4,220	81	202
	Rural	7,822	2,109	4,171	69	189
	Urban	158	21	49	12	13
4 Rampur Tehsil	Total	11,737	2,932	6,662	64	813
	Rural	11,041	2,831	6,350	50	749
	Urban	696	101	312	14	64
5 Rohru Tehsil	Total	16,206	4,927	7,468	58	776
	Rural	16,206	4,927	7,468	58	776
	Urban	..	..	..	..	..
6 Jubbal Tehsil	Total	5,171	1,166	2,739	53	172
	Rural	5,171	1,166	2,739	53	172
	Urban	..	..	..	..	..
7 Kotkhai Sub-Tehsil	Total	5,550	1,340	3,252	77	253
	Rural	5,550	1,340	3,252	77	253
	Urban	..	..	..	..	..
8 Theog Tehsil	Total	15,423	2,525	7,926	224	518
	Rural	14,879	2,475	7,666	183	478
	Urban	544	50	260	41	40
9 Kasumpti Tehsil	Total	10,737	1,481	6,182	185	315
	Rural	10,737	1,481	6,182	185	315
	Urban	..	..	..	..	..
0 Solon Tehsil	Total	9,564	898	6,984	162	525
	Rural	6,973	610	5,423	115	482
	Urban	2,591	288	1,561	47	43
1 Chaupal Tehsil	Total	10,846	3,287	5,854	53	396
	Rural	10,846	3,287	5,854	53	396
	Urban	..	..	..	..	..

uses to which they are put—concld.

Census houses used as

Hotels, Sarais, Dharam-shalas, Tourist homes and Inspection houses	Shops excluding Eating houses	Business houses and Offices	Factories, workshops and worksheds	Schools and other Educational institutions including training classes, Coaching and Shop classes	Restaurants, sweetmeat shops and Eating places	Places of Entertainment and community gathering (Panchayat Ghar)	Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries etc.	Others	
8	9	10	11	12	13	14	15	16	
106	*315*	*151*	*798*	*111*	*92*	*178*	*42*	*1,713*	III
89	*113*	*102*	*747*	*105*	*49*	*170*	*37*	*1,695*	
17	*202*	*49*	*51*	*6*	*43*	*8*	*5*	*18*	
41	42	50	354	51	9	113	24	1,399	1
41	42	50	354	51	9	113	24	1,399	
..	..	..	..	..	..	..	..	..	
65	273	101	444	60	83	65	18	314	2
48	71	52	393	54	40	57	13	296	
17	202	49	51	6	43	8	5	18	
405	*713*	*485*	*5,189*	*485*	*151*	*2,372*	*179*	*11,985*	IV
317	*406*	*342*	*5,037*	*439*	*95*	*2,317*	*137*	*11,689*	
88	*307*	*143*	*152*	*46*	*56*	*55*	*42*	*296*	
53	47	29	468	49	13	97	26	4,388	1
38	35	16	455	41	9	80	20	4,364	
15	12	13	13	8	4	17	6	24	
15	9	21	289	28	8	94	9	7	2
15	9	21	289	28	8	94	9	7	
..	..	..	..	..	..	..	..	..	
25	28	38	237	43	12	205	21	738	3
13	23	32	235	41	6	203	18	713	
12	5	6	2	2	6	2	3	25	
56	82	68	602	55	13	195	18	177	4
42	35	36	575	51	4	187	12	119	
14	47	32	27	4	9	8	6	58	
23	56	29	584	43	9	357	13	1,863	5
23	56	29	584	43	9	357	13	1,863	
..	..	..	..	..	..	..	..	..	
21	22	14	202	21	7	265	7	482	6
21	22	14	202	21	7	265	7	482	
..	..	..	..	..	..	..	..	..	
21	14	17	365	39	7	103	10	52	7
21	14	17	365	39	7	103	10	52	
..	..	..	..	..	..	..	..	..	
51	97	62	1,108	58	31	409	28	2,386	8
38	58	36	1,084	56	16	404	15	2,370	
13	39	26	24	2	15	5	13	16	
57	80	77	549	46	6	291	18	1,450	9
57	80	77	549	46	6	291	18	1,450	
..	..	..	..	..	..	..	..	..	
48	253	92	173	63	33	34	20	279	10
14	49	26	87	33	11	11	6	106	
34	204	66	86	30	22	23	14	173	
35	25	38	612	40	12	322	9	163	11
35	25	38	612	40	12	322	9	163	
..	..	..	..	..	..	..	..	..	

E-I—Census Houses and the

Occupied

Union Territory/District/ Tehsil/Sub-Tehsil/Sub-Division	Total Rural Urban	Total No. of Census houses	Census Houses vacant at he time of ouse listing	Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings
1	2	3	4	5	6	7
V. SIRMUR DISTRICT	TOTAL	*83,460*	*10,413*	*34,001*	*406*	*2,541*
	RURAL	*79,653*	*10,068*	*31,589*	*367*	*2,333*
	URBAN	*3,807*	*345*	*2,412*	*39*	*208*
1 Pachhad Tehsil	Total	19,396	1,898	8,419	132	633
	Rural	19,396	1,898	8,419	132	633
	Urban	..	..	..	..	..
2 Rainka Tehsil	Total	39,528	5,274	10,899	68	821
	Rural	39,528	5,274	10,899	68	821
	Urban	..	..	..	..	..
3 Nahan Tehsil	Total	6,953	522	5,047	15	448
	Rural	3,627	188	2,892	11	277
	Urban	3,326	334	2,155	4	171
4 Paonta Tehsil	Total	17,583	2,719	9,636	191	639
	Rural	17,102	2,708	9,379	156	602
	Urban	481	11	257	35	37
VI. KINNAUR DISTRICT	TOTAL	*20,555*	*6,684*	*5,485*	*39*	*1,013*
	RURAL	*20,555*	*6,684*	*5,485*	*39*	*1,013*
	URBAN	..	..	..	..	..
1 Nachar Sub-Division	Total	5,328	2,110	1,737	13	224
	Rural	5,328	2,110	1,737	13	224
	Urban	..	..	..	..	..
2 Kalpa Sub-Division	Total	8,649	2,865	1,826	20	491
	Rural	8,649	2,865	1,826	20	491
	Urban	..	..	..	..	..
3 Poo Sub-Division	Total	6,578	1,709	1,922	6	298
	Rural	6,578	1,709	1,922	6	298
	Urban	..	..	..	..	..

uses to which they are put—concld.

Census houses used as

Hotels, Sarais, Dharamshalas, Tourist homes and Inspection houses	Shops excluding Eating houses	Business houses and Offices	Factories, workshops and worksheds	Schools and other Educational institutions including training classes, Coaching and Shop classes	Restaurants, sweetmeat shops and Eating places	Places of entertainment and community gathering (Panchayat Ghar)	Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries etc.	Others	
8	9	10	11	12	13	14	15	16	
356	*574*	*240*	*1,686*	*231*	*50*	*736*	*69*	*32,157*	V
315	*212*	*156*	*1,571*	*215*	*27*	*700*	*52*	*32,048*	
41	*362*	*84*	*115*	*16*	*23*	*36*	*17*	*109*	
39	53	59	423	65	12	245	21	7,397	1
39	53	59	423	65	12	245	21	7,397	
..	..	..	..	..	..	..	..	..	
53	67	47	714	73	7	307	15	21,183	2
53	67	47	714	73	7	307	15	21,183	
..	..	..	..	..	..	..	..	..	
63	378	77	194	42	13	72	9	73	3
31	32	10	96	29	1	43	..	17	
32	346	67	98	13	12	29	9	56	
201	76	57	355	51	18	112	24	3,504	4
192	60	40	338	48	7	105	16	3,451	
9	16	17	17	3	11	7	8	53	
80	*25*	*74*	*983*	*61*	*9*	*440*	*20*	*5,642*	VI
80	*25*	*74*	*983*	*61*	*9*	*440*	*20*	*5,642*	
..	..	..	..	..	..	..	..	..	
21	2	12	204	15	1	123	5	861	I
21	2	12	204	15	1	123	5	861	
..	..	..	..	..	..	..	..	..	
16	13	38	437	18	7	105	9	2,804	2
16	13	38	437	18	7	105	9	2,804	
..	..	..	..	..	..	..	..	..	
43	10	24	342	28	1	212	6	1,977	3
43	10	24	342	28	1	212	6	1,977	
..	..	..	..	..	..	..	..	..	

E-II—Tenure Status of Sample Census Households Living in Census Houses used Wholly or Partly as Dwellings

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Tenure Status	Total No. of Households	Households in Census houses used as: Dwellings	Shop-cum-dwellings	Workshop-cum-dwellings	Dwellings with other uses
1	2	3	4	5	6	7	8
HIMACHAL PRADESH	**Total**	**Total**	**53,719**	**49,520**	**606**	**3,359**	**234**
		Owned	**49,657**	**46,076**	**382**	**3,094**	**105**
		Rented	**4,062**	**3,444**	**224**	**265**	**129**
	Rural	**Total**	**50,973**	**47,169**	**509**	**3,105**	**190**
		Owned	**48,194**	**44,840**	**343**	**2,924**	**87**
		Rented	**2,779**	**2,329**	**166**	**181**	**103**
	Urban	**Total**	**2,746**	**2,351**	**97**	**254**	**44**
		Owned	**1,463**	**1,236**	**39**	**170**	**18**
		Rented	**1,283**	**1,115**	**58**	**84**	**26**
Chamba District	*Total*	*Total*	*8,617*	*7,791*	*44*	*669*	*13*
		Owned	*7,867*	*7,186*	*32*	*644*	*5*
		Rented	*650*	*605*	*12*	*25*	*8*
	Rural	*Total*	*8,175*	*7,459*	*43*	*661*	*12*
		Owned	*7,686*	*7,014*	*31*	*636*	*5*
		Rented	*489*	*445*	*12*	*25*	*7*
	Urban	*Total*	*342*	*332*	*1*	*8*	*1*
		Owned	*181*	*172*	*1*	*8*	..
		Rented	*161*	*160*	..	..	*1*
Chaurah Tehsil	Total	Total	2,377	2,174	14	183	6
		Owned	2,274	2,074	13	182	5
		Rented	103	100	1	1	1
	Rural	Total	2,377	2,174	14	183	6
		Owned	2,274	2,074	13	182	5
		Rented	103	100	1	1	1
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Pangi Sub-Tehsil	Total	Total	334	235	2	97	..
		Owned	315	217	1	97	..
		Rented	19	18	1	..	..
	Rural	Total	334	235	2	97	..
		Owned	315	217	1	97	..
		Rented	19	18	1	..	..
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Chamba Tehsil	Total	Total	2,722	2,497	7	215	
		Owned	2,399	2,196	4	199	..
		Rented	323	301	3	16	3
	Rural	Total	2,380	2,165	6	207	2
		Owned	2,218	2,024	3	191	..
		Rented	162	141	3	16	2
	Urban	Total	342	332	1	8	1
		Owned	181	172	1	8	..
		Rented	161	160	..	..	1

E-II—Tenure Status of Sample Census Households Living in Census Houses used Wholly or Partly as Dwellings—contd.

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Tenure Status	Total No. of Households	Households in Census houses used as: Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings	Dwellings with other uses
1	2	3	4	5	6	7	8
CHAMBA DISTRICT—*contd.*							
Bhattiyat Tehsil	Total	Total	2,178	2,010	21	143	4
		Owned	2,007	1,858	14	135	..
		Rented	171	152	7	8	4
	Rural	Total	2,178	2,010	21	143	4
		Owned	2,007	1,858	14	135	..
		Rented	171	152	7	8	4
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Brahmaur Sub-Tehsil	Total	Total	906	875	..	31	..
		Owned	872	841	..	31	..
		Rented	34	34	..	..	..
	Rural	Total	906	875	..	31	..
		Owned	872	841	..	31	..
		Rented	34	34	..	..	..
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
MANDI DISTRICT	TOTAL	TOTAL	*15,193*	*14,205*	*191*	*742*	*55*
		OWNED	*14,390*	*13,559*	*126*	*677*	*28*
		RENTED	*803*	*646*	*65*	*65*	*27*
	RURAL	TOTAL	*14,247*	*13,442*	*149*	*625*	*31*
		OWNED	*13,792*	*13,077*	*108*	*593*	*14*
		RENTED	*455*	*365*	*41*	*32*	*17*
	URBAN	TOTAL	*946*	*763*	*42*	*117*	*24*
		OWNED	*598*	*482*	*18*	*84*	*14*
		RENTED	*348*	*281*	*24*	*33*	*10*
Jogindarnagar Tehsil	Total	Total	2,797	2,638	39	107	13
		Owned	2,591	2,468	17	100	6
		Rented	206	170	22	7	7
	Rural	Total	2,660	2,522	27	101	10
		Owned	2,537	2,421	15	95	6
		Rented	123	101	12	6	4
	Urban	Total	137	116	12	6	3
		Owned	54	47	2	5	..
		Rented	83	69	10	1	3
Mandi Sadar Tehsil	Total	Total	3,442	3,238	55	135	14
		Owned	3,161	3,019	35	102	5
		Rented	281	219	20	33	9
	Rural	Total	2,896	2,783	41	66	6
		Owned	2,827	2,741	28	58	..
		Rented	69	42	13	8	6
	Urban	Total	546	455	14	69	8
		Owned	334	278	7	44	5
		Rented	212	177	7	25	3

E-II—Tenure Status of Sample Census Households Living in Census Houses used Wholly or Partly as Dwellings—contd.

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub Division	Total Rural Urban	Tenure Status	Total No. of Households	Households in Census houses used as: Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings	Dwellings with other uses
1	2	3	4	5	6	7	8
MANDI DISTRICT—*concld.*							
Sarkaghat Tehsil	Total	Total	3,352	3,142	39	164	7
		Owned	3,281	3,086	35	155	5
		Rented	71	56	4	9	2
	Rural	Total	3,352	3,142	39	164	7
		Owned	3,281	3,086	35	155	5
		Rented	71	56	4	9	2
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Chichot Tehsil	Total	Total	2,244	2,096	11	135	2
		Owned	2,190	2,047	8	134	1
		Rented	54	49	3	1	1
	Rural	Total	2,244	2,096	11	135	2
		Owned	2,190	2,047	8	134	1
		Rented	54	49	3	1	1
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Sundarnagar Tehsil	Total	Total	1,743	1,562	38	127	16
		Owned	1,657	1,502	28	117	10
		Rented	86	60	10	10	6
	Rural	Total	1,480	1,370	22	85	3
		Owned	1,447	1,345	19	82	1
		Rented	33	25	3	3	2
	Urban	Total	263	192	16	42	13
		Owned	210	157	9	35	9
		Rented	53	35	7	7	4
Karsog Tehsil	Total	Total	1,615	1,529	9	74	3
		Owned	1,510	1,437	3	69	1
		Rented	105	92	6	5	2
	Rural	Total	1,615	1,529	9	74	3
		Owned	1,510	1,437	3	69	1
		Rented	105	92	6	5	2
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
BILASPUR DISTRICT	TOTAL	TOTAL	*7,323*	*6,818*	*75*	*395*	*35*
		OWNED	*6,929*	*6,475*	*59*	*378*	*17*
		RENTED	*394*	*343*	*16*	*17*	*18*
	RURAL	TOTAL	*7,016*	*6,566*	*63*	*356*	*31*
		OWNED	*6,740*	*6,327*	*53*	*344*	*16*
		RENTED	*276*	*239*	*10*	*12*	*15*
	URBAN	TOTAL	*307*	*252*	*12*	*39*	*4*
		OWNED	*189*	*148*	*6*	*34*	*1*
		RENTED	*118*	*104*	*6*	*5*	*3*

E-II—Tenure Status of Sample Census Households Living in Census Houses used Wholly or Partly as Dwellings—contd.

(Based on 20% Sample)

Union Territory/District/Tehsil/Sub-Tehsil/Sub-Division	Total Rural Urban	Tenure Status	Total No. of Households	Households in Census houses used as: Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings	Dwellings with other uses
1	2	3	4	5	6	7	8
BILASPUR DISTRICT—*contd.*							
Ghamarwin Tehsil . .	Total	Total	4,099	3,882	41	159	17
		Owned	4,033	3,833	36	154	10
		Rented	66	49	5	5	7
	Rural	Total	4,099	3,882	41	159	17
		Owned	4,033	3,833	36	154	10
		Rented	66	49	5	5	7
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Bilaspur Sadar Tehsil .	Total	Total	3,224	2,936	34	236	18
		Owned	2,896	2,642	23	224	7
		Rented	328	294	11	12	11
	Rural	Total	2,917	2,684	22	197	14
		Owned	2,707	2,494	17	190	6
		Rented	210	190	5	7	8
	Urban	Total	307	252	12	39	4
		Owned	189	148	6	34	1
		Rented	118	104	6	5	3
MAHASU DISTRICT . .	TOTAL	TOTAL	*13,893*	*12,678*	*221*	*912*	*82*
		OWNED	*12,318*	*11,374*	*111*	*798*	*35*
		RENTED	*1,575*	*1,304*	*110*	*114*	*47*
	RURAL	TOTAL	*13,285*	*12,167*	*185*	*864*	*69*
		OWNED	*12,150*	*11,232*	*100*	*786*	*32*
		RENTED	*1,135*	*935*	*85*	*78*	*37*
	URBAN	TOTAL	*608*	*511*	*36*	*48*	*13*
		OWNED	*168*	*142*	*11*	*12*	*3*
		RENTED	*440*	*369*	*25*	*36*	*10*
Arki Tehsil . . .	Total	Total	1,670	1,498	39	124	9
		Owned	1,588	1,439	28	115	6
		Rented	82	59	11	9	3
	Rural	Total	1,597	1,441	31	118	7
		Owned	1,543	1,403	23	112	5
		Rented	54	38	8	6	2
	Urban	Total	73	57	8	6	2
		Owned	45	36	5	3	1
		Rented	28	21	3	3	1
Seoni Sub-Tehsil . .	Total	Total	823	751	19	50	3
		Owned	776	714	13	48	1
		Rented	47	37	6	2	2
	Rural	Total	823	751	19	50	3
		Owned	776	714	13	48	1
		Rented	47	37	6	2	2
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..

E-II—Tenure Status of Sample Census Households Living in Census Houses used Wholly or Partly as Drewllings—contd.

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Tenure Status	Total No. of Households	Households in Census houses used as: Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings	Dwellings with other uses
1	2	3	4	5	6	7	8
MAHASU DISTRICT—*contd*							
Kumharsain Sub-Tehsil	Total	Total	904	844	16	30	14
		Owned	817	770	9	27	11
		Rented	87	74	7	3	3
	Rural	Total	887	834	12	29	12
		Owned	815	769	8	27	11
		Rented	72	65	4	2	1
	Urban	Total	17	10	4	1	2
		Owned	2	1	1	..	..
		Rented	15	9	3	1	2
Rampur Tehsil	Total	Total	1,539	1,355	11	166	7
		Owned	1,439	1,283	3	150	3
		Rented	100	72	8	16	4
	Rural	Total	1,435	1,272	8	150	5
		Owned	1,399	1,248	3	146	2
		Rented	36	24	5	4	3
	Urban	Total	104	83	3	16	2
		Owned	40	35	..	4	1
		Rented	64	48	3	12	1
Rohru Tehsil	Total	Total	1,664	1,506	7	146	5
		Owned	1,563	1,427	3	133	..
		Rented	101	79	4	13	5
	Rural]	Total	1,664	1,506	7	146	5
		Owned	1,563	1,427	3	133	..
		Rented	101	79	4	13	5
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Jubbal Tehsil	Total	Total	610	560	12	30	8
		Owned	563	524	8	29	2
		Rented	47	36	4	1	6
	Rural	Total	610	560	12	30	8
		Owned	563	524	8	29	2
		Rented	47	36	4	1	6
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Kotkhai Sub-Tehsil	Total	Total	740	681	12	43	4
		Owned	681	640	5	36	..
		Rented	59	41	7	7	4
	Rural	Total	740	681	12	43	4
		Owned	681	640	5	36	..
		Rented	59	41	7	7	4
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..

E-II—Tenure Status of Sample Census Households Living in Census Houses used Wholly or Partly as Dwellings—contd.

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Tenure Status	Total No. of Households	Households in Census houses used as: Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings	Dwelling with oth uses
1	2	3	4	5	6	7	
MAHASU DISTRICT—*concld.*							
Theog Tehsil . . .	Tota	Total	1,750	1,603	41	98	8
		Owned	1,511	1,422	14	74	1
		Rented	239	181	27	24	7
	Rural	Total	1,674	1,555	28	86	5
		Owned	1,490	1,410	9	71	..
		Rented	184	145	19	15	5
	Urban	Total	76	48	13	12	3
		Owned	21	12	5	3	1
		Rented	55	36	8	9	2
Kasumpti Tehsil . .	Total	Total	1,342	1,245	28	59	10
		Owned	1,036	976	10	46	4
		Rented	306	269	18	13	6
	Rural	Total	1,342	1,245	28	59	10
		Owned	1,036	976	10	46	4
		Rented	306	269	18	13	6
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Solon Tehsil . . .	Total	Total	1,553	1,439	22	87	5
		Owned	1,125	1,047	10	68	..
		Rented	428	392	12	19	5
	Rural	Total	1,215	1,126	14	74	1
		Owned	1,065	989	10	66	..
		Rented	150	137	4	8	1
	Urban	Total	338	313	8	13	4
		Owned	60	58	..	2	..
		Rented	278	255	8	11	4
Chapual Tehsil . .	Total	Tota.	1,298	1,196	14	79	9
		Owned	1,219	1,132	8	72	7
		Rented	79	64	6	7	2
	Rural	Total	1,298	1,196	14	79	9
		Owned	1,219	1,132	8	72	7
		Rented	79	64	6	7	2
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
SIRMUR DISTRICT .	TOTAL	TOTAL	*7,420*	*6,863*	*66*	*461*	*30*
		OWNED	*6,883*	*6,402*	*45*	*423*	*13*
		RENTED	*537*	*461*	*21*	*38*	*17*
	RURAL	TOTAL	*6,877*	*6,370*	*60*	*419*	*28*
		OWNED	*6,556*	*6,110*	*42*	*391*	*13*
		RENTED	*321*	*260*	*18*	*28*	*15*
	URBAN	TOTAL	*543*	*493*	*6*	*42*	*2*
		OWNED	*327*	*292*	*3*	*32*	..
		RENTED	*216*	*201*	*3*	*10*	*2*

E-II—Tenure Status of Sample Census Households Living in Census Houses used Wholly or Partly as Dwellings—concld.

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Tenure, Status	Total No. of Households	Households in Census houses used as			
				Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings	Dwellings with other uses
1	2	3	4	5	6	7	8
SIRMUR DISTRICT—*concld.*							
Pachhad Tehsil	Total	Total	1,848	1,706	22	106	14
		Owned	1,738	1,622	13	97	6
		Rented	110	84	9	9	8
	Rural	Total	1,848	1,706	22	106	14
		Owned	1,738	1,622	13	97	6
		Rented	110	84	9	9	8
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Rainka Tehsil	Total	Total	2,361	2,186	12	154	9
		Owned	2,235	2,085	10	137	3
		Rented	126	101	2	17	6
	Rural	Total	2,361	2,186	12	154	9
		Owned	2,235	2,085	10	137	3
		Rented	126	101	2	17	6
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Nahan Tehsil	Total	Total	1,104	1,015	..	87	2
		Owned	897	815	..	81	1
		Rented	207	200	..	6	1
	Rural	Total	637	584	..	51	2
		Owned	612	560	..	51	1
		Rented	25	24	..	..	1
	Urban	Total	467	431	..	36	..
		Owned	285	255	..	30	..
		Rented	182	176	..	6	..
Paonta Tehsil	Total	Total	2,107	1,956	32	114	5
		Owned	2,013	1,880	22	108	3
		Rented	94	76	10	6	2
	Rural	Total	2,031	1,894	26	108	3
		Owned	1,971	1,843	19	106	3
		Rented	60	51	7	2	..
	Urban	Total	76	62	6	6	2
		Owned	42	37	3	2	..
		Rented	34	25	3	4	2

E-II—Tenure Status of Sample Census Households Living in Census Houses used Wholly or Partly as Dwellings—contd.

(Based on 20% Sample)

Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Tenure Status	Total No. of Households	Households in Census houses used as			
				Dwellings	Shop-*cum*-dwellings	Workshop-*cum*-dwellings	Dwellings with other uses
1	2	3	4	5	6	7	8
KINNAUR DISTRICT	TOTAL	TOTAL	*1,373*	*1,165*	*9*	*180*	*19*
		OWNED	*1,270*	*1,080*	*9*	*174*	*7*
		RENTED	*103*	*85*	..	*6*	*12*
	RURAL	TOTAL	*1,373*	*1,165*	*9*	*180*	*19*
		OWNED	*1,270*	*1,080*	*9*	*174*	*7*
		RENTED	*103*	*85*	..	*6*	*12*
	URBAN	TOTAL	..	..	..	..	..
		OWNED	..	..	..	..	..
		RENTED	..	..	..	..	..
Nachar Sub-Division	Total	Total	402	367	1	33	1
		Owned	376	345	1	30	..
		Rented	26	22	..	3	1
	Rural	Total	402	367	1	33	1
		Owned	376	345	1	30	..
		Rented	26	22	..	3	1
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Kalpa Sub-Division	Total	Total	488	377	5	100	6
		Owned	432	328	5	98	1
		Rented	56	49	..	2	5
	Rural	Total	488	377	5	100	6
		Owned	432	328	5	98	1
		Rented	56	49	..	2	5
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..
Poo Sub-Division	Total	Total	483	421	3	47	12
		Owned	462	407	3	40	6
		Rented	21	14	..	1	6
	Rural	Total	483	421	3	47	12
		Owned	462	407	3	46	6
		Rented	21	14	..	1	
	Urban	Total	..	..	..	..	..
		Owned	..	..	..	..	..
		Rented	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		HIMACHAL PRADESH—Rural							
2 & 3	Total	36,342	32,694	3,540	84	14	8	1	1
	I All fuel	17,151	16,834	282	23	3	7	1	1
	(a) Electricity	52	18	21	2	2	7	1	1
	(b) Liquid fuel	32	16	10	5	1	..	..	..
	(c) Coal, wood and bagasse	1	..	..	1	..	..	..	..
	(d) Other power	17,066	16,800	251	15	..	..	..	..
	II No power	19,191	15,860	3,258	61	11	1	..	..
20	Total	17,123	16,826	278	17	1	1	..	..
	I All fuel	17,108	16,814	275	17	1	1	..	..
	(a) Electricity	36	18	16	..	1	1	..	..
	(b) Liquid fuel	24	14	8	2	..	..	..	..
	(d) Other power	17,048	16,782	251	15	..	..	..	..
	II No power	15	12	3	..	..	..	..	..
200	Total	16,722	16,442	266	13	1	..	..	..
	I All fuel	16,721	16,442	265	13	1	..	..	..
	(a) Electricity	33	18	14	..	1	..	..	..
	(b) Liquid fuel	17	8	7	2	..	..	..	..
	(d) Other power	16,671	16,416	244	11	..	..	..	..
	II No power	1	..	1	..	..	..	..	..
201	Total	1	..	..	..	..	1	..	..
	I All fuel	1	..	..	..	..	1	..	..
	(a) Electricity	1	..	..	..	..	1	..	..
202	Total	10	9	1	..	..	..	..	..
	I All fuel	4	4	..	..	..	..	..	..
	(b) Liquid fuel	2	2	..	..	..	..	..	..
	(d) Other power	2	2	..	..	..	..	..	..
	II No power	6	5	1	..	..	..	..	..
205	Total	4	3	1	..	..	..	..	..
	II No power	4	3	1	..	..	..	..	..
206	Total	4	4	..	..	..	..	..	..
	II No power	4	4	..	..	..	..	..	..
207	Total	382	368	10	4	..	..	..	..
	I All fuel	382	368	10	4	..	..	..	..
	(a) Electricity	2	..	2	..	..	..	..	..
	(b) Liquid fuel	5	4	1	..	..	..	..	..
	(d) Other power	375	364	7	4	..	..	..	..
21	Total	5	3	..	..	..	1	..	1
	I All fuel	2	..	..	..	..	1	..	1
	(a) Electricity	2	..	..	..	..	1	..	1
	II No power	3	3	..	..	..	..	..	..
210	Total	1	..	..	..	..	..	..	1
	I All fuel	1	..	..	..	..	..	..	1
	(a) Electricity	1	..	..	..	..	..	..	1
211	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
217	Total	3	2	..	..	..	1	..	..
	I All fuel	1	..	..	..	..	1	..	..
	(a) Electricity	1	..	..	..	..	1	..	..
	II No power	2	2	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		HIMACHAL PRADESH—Rural—*contd.*							
23	Total	60	54	5	1	..	..	..	..
I	All fuel	6	5	1	..	..	..	..	..
(*b*)	Liquid fuel	1	..	1	..	..	..	..	.
(*d*)	Other power	5	5	..	..	..	..	..	.
II	No power	54	49	4	1	..	..	..	..
230	Total	14	13	1	..	..	..	..	..
I	All fuel	6	5	1	..	..	..	..	..
(*b*)	Liquid fuel	1	..	1	..	..	..	..	..
(*d*)	Other power	5	5	..	..	..	..	..	.
II	No power	8	8	..	..	..	..	..	..
233	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
236	Total	43	39	3	1	..	..	..	..
II	No power	43	39	3	1	..	..	..	..
239	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
24	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
244	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
25	Total	4,083	3,241	807	28	7	..	..	..
I	All fuel	12	12	..	..	..	..	..	..
(*d*)	Other power	12	12	..	..	..	..		..
II	No power	4,071	3,229	807	28	7	..	..	..
251	Total	16	16	..	..	..	..	..	..
I	All fuel	12	12	..	..	..	..	..	..
(*d*)	Other power	12	12	..	..	..	..	..	.
II	No power	4	4	..	..	..	..	..	..
255	Total	4,067	3,225	807	28	7	..	..	..
II	No power	4,067	3,225	807	28	7	..	..	..
26	Total	1	..	..	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(*c*)	Coal, wood and bagasse	1	..	..	1	..	..	..	..
262	Total	1	..	..	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(*c*)	Coal, wood and bagasse	1	..	..	1	..	..	..	..
27	Total	3,581	3,228	348	2	3	..	..	..
II	No power	3,581	3,228	348	2	3	..	..	..
270	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
271	Total	6	5	1	..	..	..	..	..
II	No power	6	5	1	..	..	..	..	..
272	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
273	Total	3,569	3,218	346	2	3	..	..	..
II	No power	3,569	3,218	346	2	3	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		HIMACHAL PRADESH—Rural—*contd.*							
279	Total	2	1	1		..	..	..	..
II	No power	2	1	1	..	..	..	..	..
28	Total	3,549	2,976	559	12	2	..	..	..
I	All fuel	14	3	4	5	2	..	..	..
(a)	Electricity	6	..	3	2	1	..	..	..
(b)	Liquid fuel	7	2	1	3	1	..	..	..
(d)	Other power	1	1	..	..	..	..	..	..
II	No power	3,535	2,973	555	7	..	..	..	..
280	Total	45	30	9	4	2	..	..	..
I	All fuel	12	3	4	3	2	..	..	..
(a)	Electricity	4	..	3	..	1	..	..	..
(b)	Liquid fuel	7	2	1	3	1	..	..	..
(d)	Other power	1	1	..	..	..	..	..	..
II	No power	33	27	5	1	..	..	..	..
281	Total	16	14	1	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(a)	Electricity	1	..	..	1	..	..	..	..
II	No power	15	14	1	..	..	..	..	..
282	Total	2,008	1,754	253	1	..	..	..	..
II	No power	2,088	1,754	253	1	..	..	..	..
284	Total	1	..	..	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(a)	Electricity	1	..	..	1	..	..	..	..
287	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
288	Total	1,473	1,173	295	5	..	..	..	..
II	No power	1,473	1,173	295	5	..	..	..	..
289	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
31	Total	3,714	2,971	732	10	1	..	..	..
II	No power	3,714	2,971	732	10	1	..	..	..
310	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
311	Total	3,634	2,906	717	10	1	..	..	..
II	No power	3,634	2,906	717	10	1	..	..	..
314	Total	79	64	15	..	..	..	..	..
II	No power	79	64	15	..	..	..	..	..
33	Total	6	5	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	5	5	..	..	..	..	..	..
333	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
335	Total	3	3	..	..	..	..	..	..
II	No power	3	3	..	..	..	..	..	..
336	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		HIMACHAL PRADESH—Rural—*contd.*							
337	*Total*	1	..	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
34	Total	4	3	..	..	..	1	..	..
II	No power	4	3	..	..	..	1	..	..
340	Total	2	1	..	..	..	1	..	..
II	No power	2	1	..	..	..	1	..	..
343	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
35	Total	843	607	228	8	..	..	..	..
II	No power	843	607	228	8	..	..	..	..
350	Total	843	607	228	8	..	..	..	..
II	No power	843	607	228	8	..	..	..	..
36	Total	2,798	2,304	491	3	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
II	No power	2,797	2,304	490	3	..	..	..	..
362	Total	5	4	1	..	..	..	..	..
II	No power	5	4	1	..	..	..	..	..
365	Total	59	43	16	..	..	..	..	..
II	No power	59	43	16	..	..	..	..	..
368	Total	9	8	1	..	..	..	..	..
II	No power	9	8	1	..	..	..	..	..
369	Total	2,725	2,249	473	3	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
II	No power	2,724	2,249	472	3	..	..	..	..
37	Total	6	5	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
372	Total	1	..	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
378	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
38	Total	10	3	2	..	..	4	1	..
I	All fuel	5	..	..	..	..	4	1	..
(a)	Electricity	5	..	..	..	..	4	1	..
II	No power	5	3	2	..	..	..	..	..
384	Total	5	..	..	..	..	4	1	..
I	All fuel	5	..	..	..	..	4	1	..
(a)	Electricity	5	..	..	..	..	4	1	..
388	Total	5	3	2	..	..	..	..	..
II	No power	5	3	2	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		HIMACHAL PRADESH—Rural—*concld.*							
39	Total	554	463	89	2	..	..	..	..
II	No power	554	463	89	2	..	..	..	..
392	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
393	Total	552	461	89	2	..	..	..	..
II	No power	552	461	89	2	..	..	..	..
		HIMACHAL PRADESH—Urban							
2 & 3	Total	1,909	1,389	471	15	13	12	2	7
I	All fuel	208	140	43	5	5	7	1	7
(a)	Electricity	55	8	22	5	5	7	1	7
(b)	Liquid fuel	3	1	2	..	..	..	..	..
(d)	Other power	150	131	19	..	..	..	..	..
II	No power	1,701	1,249	428	10	8	5	1	..
20	Total	196	148	47	1	..	..	..	..
I	All fuel	169	138	30	1	..	..	..	..
(a)	Electricity	17	7	9	1	..	..	..	..
(b)	Liquid fuel	3	1	2	..	..	..	..	..
(d)	Other power	149	130	19	..	..	..	..	..
II	No power	27	10	17	..	..	..	..	..
200	Total	152	125	26	1	..	..	..	..
I	All fuel	152	125	26	1	..	..	..	..
(a)	Electricity	13	4	8	1	..	..	..	..
(b)	Liquid fuel	3	1	2	..	..	..	..	..
(d)	Other power	136	120	16	..	..	..	..	..
205	Total	24	8	16	..	..	..	..	..
II	No power	24	8	16	..	..	..	..	..
206	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
207	Total	17	13	4	..	..	..	..	..
I	All fuel	17	13	4	..	..	..	..	..
(a)	Electricity	4	3	1	..	..	..	..	..
(d)	Other power	13	10	3	..	..	..	..	..
21	Total	17	8	5	..	1	..	..	3
I	All fuel	4	..	..	..	1	..	..	3
(a)	Electricity	4	..	..	..	1	..	..	3
II	No power	13	8	5	..	..	..	..	..
210	Total	4	..	1	..	..	..	..	3
I	All fuel	3	..	..	..	..	..	..	3
(a)	Electricity	3	..	..	..	..	..	..	3
II	No power	1	..	1	..	..	..	..	..
214	Total	13	8	4	..	1	..	..	..
I	All fuel	1	..	..	..	1	..	..	..
(a)	Electricity	1	..	..	..	1	..	..	..
II	No power	12	8	4	..	..	..	..	..
23	Total	31	21	7	..	3	..	..	..
I	All fuel	2	1	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
(d)	Other power	1	1	..	..	..	..	..	..
II	No power	29	20	6	..	3	..	..	..
230	Total	4	3	1	..	..	..	..	..
I	All fuel	2	1	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
(d)	Other power	1	1	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4		6	7	8	9	10
		HIMACHAL PRADESH—Urban—*contd.*							
232	Total	2	2	..	..	..	..	..	..
	II No power	2	2	..	..	..	..	..	..
236	Total	22	13	6	..	3	..	..	..
	II No power	22	13	6	..		..	..	..
237	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
239	Total	2	2	..	..	..	..	..	..
	II No power	2	2	..	..	..	..	..	..
25	Total	40	25	6	1	3	4	1	..
	I All fuel	1	..	1	..	..	..	..	..
	(a) Electricity	1	..	1	..	..	..	..	..
	II No power	39	25	5	1	3	4	1	..
251	Total	1	..	1	..	..	..	..	..
	I All fuel	1	..	1	..	..	..	..	..
	(a) Electricity	1	..	1	..	..	..	..	..
255	Total	39	25	5	1	3	4	1	..
	II No power	39	25	5	1	3	4	1	..
26	Total	1	..	1	..	..	..	..	..
	II No power	1	..	1	..	..	..	..	..
262	Total	1	..	1	..	..	..	..	..
	II No power	1	..	1	..	..	..	..	..
27	Total	569	424	140	3	1	1	..	..
	I All fuel	3	1	2	..	..	..	..	..
	(a) Electricity	3	1	2	..	..	..	..	..
	II No power	566	423	138	3	1	1	..	..
270	Total	3	..	3	..	..	..	..	..
	I All fuel	1	..	1	..	..	..	..	..
	(a) Electricity	1	..	1	..	..	..	..	..
	II No power	2	..	2	..	..	..	..	..
271	Total	8	4	3	1	..	..	..	..
	I All fuel	2	1	1	..	..	..	..	..
	(a) Electricity	2	1	1	..	..	..	..	..
	II No power	6	3	2	1	..	..	..	..
272	Total	2	2	..	..	..	..	..	..
	II No power	2	2	..	..	..	..	..	..
273	Total	549	412	133	2	1	1	..	..
	II No power	549	412	133	2	1	1	..	..
274	Total	2	2	..	..	..	..	..	..
	II No power	2	2	..	..	..	..	..	..
278	Total	1	..	1	..	..	..	..	..
	II No power	1	..	1	..	..	..	..	..
279	Total	4	4	..	..	..	..	..	
	II No power	4	4	..	..				

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		HIMACHAL PRADESH—Urban—*contd.*							
28	Total	284	218	63	2	..	..	..	1
I	All fuel	7	..	5	1	..	..	..	1
(a)	Electricity	7	..	5	1	..	..	..	1
II	No power	277	218	58	1	..	..	..	..
280	Total	18	7	10	1	..	..	..	..
I	All fuel	6	..	5	1	..	..	..	..
(a)	Electricity	6	..	5	1	..	..	..	..
II	No power	12	7	5	..	..	..	..	..
281	Total	25	20	5	..	..	..	..	..
II	No power	25	20	5	..	..	..	..	..
282	Total	189	149	39	1	..	..	..	..
II	No power	189	149	39	1	..	..	..	..
284	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
287	Total	1	..	..	..	..	..	..	1
I	All fuel	1	..	..	..	..	..	..	1
(a)	Electricity	1	..	..	..	..	..	..	1
288	Total	45	36	9	..	..	..	..	..
II	No power	45	36	9	..	..	..	..	..
289	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
29	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
292	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
30	Total	6	1	5	..	..	..	..	..
I	All fuel	4	..	4	..	..	..	..	..
(a)	Electricity	4	..	4	..	..	..	..	..
II	No power	2	1	1	..	..	..	..	..
302	Total	4	1		..	..	..	..	..
I	All fuel	3	..	3	..	..	..	..	..
(a)	Electricity	3	..	3	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
303	Total	2	..	2		..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
31	Total	369	267	98	3	1	..	..	..
II	No power	369	267	98	3	1	..	..	..
311	Total	369	267	98	3	1	..	..	..
II	No power	369	267	98	3	1	..	..	..
33	Total	12	6	4	..	..	1	..	1
I	All fuel	2	..	..	..	..	1	..	1
(a)	Electricity	2	..	..	..	..	1	..	1
II	No power	10	6	4	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		HIMACHAL PRADESH—Urban—*contd.*							
333	Total	6	4	2	..	..	..	..	..
II	No power	6	4	2	..	..	..	..	..
335	Total	3	1	1	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	2	1	1	..	..	..	..	..
336	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
337	Total	1	..	..	..	..	..	..	1
I	All fuel	1	..	..	..	..	..	..	1
(a)	Electricity	1	..	..	..	..	..	..	1
339	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
34	Total	6	6	..	..	..	..	..	..
II	No power	6	6	..	..	..	..	..	..
342	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
343	Total	4	4	..	..	..	..	..	..
II	No power	4	4	..	..	..	..	..	..
35	Total	39	30	9	..	..	..	..	..
II	No power	39	30	9	..	..	..	..	..
350	Total	37	28	9	..	..	..	..	..
II	No power	37	28	9	..	..	..	..	..
356	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
36	Total	131	96	26	3	3	2	..	1
I	All fuel	9	..	..	3	3	2	..	1
(a)	Electricity	9	..	..	3	3	2	..	1
II	No power	122	96	26	..	..	..	..	..
362	Total	9	5	1	..	1	2	..	..
I	All fuel	3	..	..	..	1	2	..	..
(a)	Electricity	3	..	..	..	1	2	..	..
II	No power	6	5	1	..	..	..	..	..
365	Total	12	4	4	3	1	..	..	..
I	All fuel	4	..	..	3	1	..	..	..
(a)	Electricity	4	..	..	3	1	..	..	..
II	No power	8	4	4	..	..	..	..	..
368	Total	6	6	..	..	..	..	..	..
II	No power	6	6	..	..	..	..	..	..
369	Total	104	81	21	..	1	..	..	1
I	All fuel	2	..	..	..	1	..	..	1
(a)	Electricity	2	..	..	..	1	..	..	1
II	No power	102	81	21	..	..	..	..	..
37	Total	15	8	5	..	..	..	1	1
I	All fuel	2	..	..	..	..	..	1	1
(a)	Electricity	2	..	..	..	..	..	1	1
II	No power	13	8	5	..	..	..	..	..
372	Total	2	..	..	..	..	..	1	1
I	All fuel	2	..	..	..	..	..	1	1
(a)	Electricity	2	..	..	..	..	..	1	1

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		HIMACHAL PRADESH—Urban—*concld.*							
378	Total	12	8	4	..	..	..	..	..
II	No power	12	8	4	..	..	..	..	..
379	Total	1	..	1	..	..	..	..	
II	No power	1	..	1	..	..	..	..	..
38	Total	32	20	7	1	1	3	..	..
I	All fuel	4	..	..	..	1	3	..	..
(a)	Electricity	4	..	..	..	1	3	..	..
II	No power	28	20	7	1	..	..	..	..
384	Total	11	3	3	1	1	3	..	..
I	All fuel	4	..	..	..	1	3	..	..
(a)	Electricity	4	..	..	..	1	3	..	..
II	No power	7	3	3	1	..	..	..	..
388	Total	20	16	4	..	..	..	..	..
II	No power	20	16	4	..	..	..	..	..
389	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
39	Total	160	110	48	1	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	159	110	48	1	..	..	..	..
391	Total	1	..	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
392	Total	28	22	6	..	..	..	..	..
II	No power	28	22	6	..	..	..	..	..
393	Total	126	85	40	1	..	..	..	..
II	No power	126	85	40	1	..	..	..	..
399	Total	5	3	2	..	..	..	..	..
II	No power	5	3	2	..	..	..	..	..
		CHAMBA DISTRICT—Rural							
2 & 3	Total	6,838	6,155	652	25	5	1	..	..
I	All fuel	2,947	2,934	9	2	1	1	..	..
(a)	Electricity	6	..	4	1	..	1	..	..
(b)	Liquid fuel	1	..	..	..	1	..	..	..
(d)	Other power	2,940	2,934	5	1	..	..	..	..
II	No power	3,891	3,221	643	23	4	..	..	..
20	Total	2,936	2,926	9	1	..	..	..	..
I	All fuel	2,935	2,926	8	1	..	..	..	..
(a)	Electricity	3	..	3	..	..	..	..	..
(d)	Other power	2,932	2,926	5	1	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
200	Total	2,788	2,780	7	1	..	..	..	..
I	All fuel	2,787	2,780	6	1	..	..	..	..
(a)	Electricity	2	..	2	..	..	..	..	..
(d)	Other power	2,785	2,780	4	1	..	..	..	..
II	No power	1	..	1	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 person and above
1	2	3	4	5	6	7	8	9	10
		CHAMBA DISTRICT—Rural—*contd.*							
207	Total	148	146	2	..	..	..	..	..
I	All fuel	148	146	2	..	..	..	..	..
(*a*)	Electricity	1	..	1	..	..	..	..	..
(*d*)	Other power	147	146	1	..	..	..	..	..
25	Total	1,420	1,151	257	9	3	..	..	..
I	All fuel	8	8	..	..	..	..	..	..
(*d*)	Other power	8	8	..	..	..	..	..	..
II	No power	1,412	1,143	257	9	3	..	..	..
251	Total	10	10	..	..	..	..	..	..
I	All fuel	8	8	..	..	..	..	..	..
(*d*)	Other power	8	8	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
255	Total	1,410	1,141	257	9	3	..	..	..
II	No power	1,410	1,141	257	9	3	..	..	..
27	Total	602	571	29	1	1	..	..	..
II	No power	602	571	29	1	1	..	..	..
272	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
273	Total	600	570	28	1	1	..	..	..
II	No power	600	570	28	1	1	..	..	..
279	Total	1	.	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
28	Total	548	463	80	4	1	..	..	..
I	All fuel	2	..	..	1	1	..	..	..
(*a*)	Electricity	1	..	..	1	..	..	..	..
(*b*)	Liquid fuel	1	..	..	..	1	..	..	..
II	No power	546	463	80	3	..	..	..	..
280	Total	16	11	3	1	1	..	..	..
I	All fuel	1	..	..	..	1	..	..	..
(*b*)	Liquid fuel	1	..	..		1	..	..	..
II	No power	15	11	3	1	..	..	..	..
281	Total	9	7	1	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(*a*)	Electricity	1	..	..	1	..	..	..	..
II	No power	8	7	1	..	..	..	..	..
282	Total	252	224	28	..	..	..	..	..
II	No power	252	224	28	..	..	..	..	..
288	Total	266	216	48	2	..	..	..	..
II	No power	266	216	48	2	..	..	..	..
289	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
31	Total	684	497	182	5	..	..	..	..
II	No power	684	497	182	5	..	..	..	..
311	Total	640	465	170	5	..	..	..	..
II	No power	640	465	170	5	..	..	..	..
314	Total	44	32	12	..	..	..	..	..
II	No power	44	32	12	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		HIMACHAL PRADESH—Urban—*concld.*							
378	Total	12	8	4	..	..	..	..	..
	II No power	12	8	4	..	..	..	..	..
379	Total	1	..	1	..	..	..	..	
	II No power	1	..	1	..	..	..	..	..
38	Total	32	20	7	1	1	3	..	..
	I All fuel	4	..	..	..	1	3	..	..
	(*a*) Electricity	4	..	..	..	1	3	..	..
	II No power	28	20	7	1	..	..	..	..
384	Total	11	3	3	1	1	3	..	..
	I All fuel	4	..	..	..	1	3	..	..
	(*a*) Electricity	4	..	..	..	1	3	..	..
	II No power	7	3	3	1	..	..	..	..
388	Total	20	16	4	..	..	..	..	..
	II No power	20	16	4	..	..	..	..	..
389	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
39	Total	160	110	48	1	..	1	..	..
	I All fuel	1	..	..	..	..	1	..	..
	(*a*) Electricity	1	..	..	..	..	1	..	..
	II No power	159	110	48	1	..	..	..	..
391	Total	1	..	..	..	..	1	..	..
	I All fuel	1	..	..	..	..	1	..	..
	(*a*) Electricity	1	..	..	..	..	1	..	..
392	Total	28	22	6	..	..	..	..	..
	II No power	28	22	6	..	..	..	..	..
393	Total	126	85	40	1	..	..	..	..
	II No power	126	85	40	1	..	..	..	..
399	Total	5	3	2	..	..	..	..	..
	II No power	5	3	2	..	..	..	..	..
		CHAMBA DISTRICT—Rural							
2 & 3	Total	6,838	6,155	652	25	5	1	..	..
	I All fuel	2,947	2,934	9	2	1	1	..	..
	(*a*) Electricity	6	..	4	1	..	1	..	..
	(*b*) Liquid fuel	1	..	..	..	1	..	..	..
	(*d*) Other power	2,940	2,934	5	1	..	..	..	..
	II No power	3,891	3,221	643	23	4	..	..	..
20	Total	2,936	2,926	9	1	..	..	..	..
	I All fuel	2,935	2,926	8	1	..	..	..	..
	(*a*) Electricity	3	..	3	..	..	..	..	..
	(*d*) Other power	2,932	2,926	5	1	..	..	..	..
	II No power	1	..	1	..	..	..	..	..
200	Total	2,788	2,780	7	1	..	..	..	..
	I All fuel	2,787	2,780	6	1	..	..	..	..
	(*a*) Electricity	2	..	2	..	..	..	..	..
	(*d*) Other power	2,785	2,780	4	1	..	..	..	..
	II No power	1	..	1	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 person and above
1	2	3	4	5	6	7	8	9	10
		CHAMBA DISTRICT—Rural—*contd.*							
207	Total	148	146	2	..	..	..	..	..
I	All fuel	148	146	2	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
(d)	Other power	147	146	1	..	..	..	..	..
25	Total	1,420	1,151	257	9	3	..	..	..
I	All fuel	8	8	..	..	..	..	..	..
(d)	Other power	8	8	..	..	..	..	..	..
II	No power	1,412	1,143	257	9	3	..	..	..
251	Total	10	10	..	..	..	..	..	..
I	All fuel	8	8	..	..	..	..	..	..
(d)	Other power	8	8	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
255	Total	1,410	1,141	257	9	3	..	..	..
II	No power	1,410	1,141	257	9	3	..	..	..
27	Total	602	571	29	1	1	..	..	..
II	No power	602	571	29	1	1	..	..	..
272	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
273	Total	600	570	28	1	1	..	..	..
II	No power	600	570	28	1	1	..	..	..
279	Total	1		1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
28	Total	548	463	80	4	1	..	..	..
I	All fuel	2	..	..	1	1	..	..	..
(a)	Electricity	1	..	..	1	..	..	..	..
(b)	Liquid fuel	1	..	..	..	1	..	..	..
II	No power	546	463	80	3	..	..	..	..
280	Total	16	11	3	1	1	..	..	..
I	All fuel	1	..	..	..	1	..	..	..
(b)	Liquid fuel	1	..	..		1	..	..	..
II	No power	15	11	3	1	..	..	..	..
281	Total	9	7	1	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(a)	Electricity	1	..	..	1	..	..	..	..
II	No power	8	7	1	..	..	..	..	..
282	Total	252	224	28	..	..	..	..	..
II	No power	252	224	28	..	..	..	..	..
288	Total	266	216	48	2	..	..	..	..
II	No power	266	216	48	2	..	..	..	..
289	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
31	Total	684	497	182	5	..	..	..	..
II	No power	684	497	182	5	..	..	..	..
311	Total	640	465	170	5	..	..	..	..
II	No power	640	465	170	5	..	..	..	..
314	Total	44	32	12	..	..	..	..	..
II	No power	44	32	12	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		CHAMBA DISTRICT—Rural—*concld.*							
35	Total	193	158	31	4	..	..	..	..
II	No power	193	158	31	4	..	..	..	..
350	Total	193	158	31	4	..	..	..	..
II	No power	193	158	31	4	..	..	..	..
36	Total	349	304	45	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(*a*)	Electricity	1	..	1	..	..	..	..	..
II	No power	348	304	44		..	..	..	..
362	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
365	Total	11	8	3	..	..	..	..	..
II	No power	11	8	3	..	..	..	..	..
368	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
369	Total	335	293	42	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(*a*)	Electricity	1	..	1	..	..	..	..	..
II	No power	334	293	41	..	..	..	..	..
38	Total	1	..	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(*a*)	Electricity	1	..	..	..	..	1	..	..
384	Total	1	..	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(*a*)	Electricity	1	..	..	..	..	1	..	..
39	Total	105	85	19	1	..	..	..	..
II	No power	105	85	19	1	..	..	..	..
393	Total	105	85	19	1	..	..	..	..
II	No power	105	85	19	1	..	..	..	..
		CHAMBA DISTRICT—Urban							
2 & 3	Total	131	78	47	1	2	2	1	..
I	All fuel	10	5	5	..	..	..	..	..
(*a*)	Electricity	6	1	5	..	..	..	..	..
(*d*)	Other power	4	4	..	..	..	..	..	..
II	No power	121	73	42	1	2	2	1	..
20	Total	10	7	3	..	..	..	..	..
I	All fuel	6	5	1	..	..	..	..	..
(*a*)	Electricity	2	1	1	..	..	..	..	..
(*d*)	Other power	4	4	..	..	..	..	..	..
II	No power	4	2	2	..	..	..	..	..
200	Total	4	3	1	..	..	..	..	..
I	All fuel	4	3	1	..	..	..	..	..
(*a*)	Electricity	2	1	1	..		..	..	..
(*d*)	Other power	2	2	..	..	..	..	..	..
205	Total	4	2	2	..	..	..	..	..
II	No power	4	2	2	..	..	..	..	..
207	Total	2	2	..	..	..	..	..	..
I	All fuel	2	2	..	..	..	..	..	..
(*d*)	Other power	2	2	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C. 1	Kind of fuel or power used 2	No. of factories and workshops by size of employment							
		Total 3	1 person 4	2—5 persons 5	6—9 persons 6	10—19 persons 7	20—49 persons 8	50—99 persons 9	100 persons and above 10
		CHAMBA DISTRICT—Urban—*contd.*							
25	Total	9	3	1	..	2	2	1	..
II	No power	9	3	1	..	2	2	1	..
255	Total	9	3	1	..	2	2	1	..
II	No power	9	3	1	..	2	2	1	..
27	Total	42	28	14	..	..	..	..	..
II	No power	42	28	14	..	..	..	..	..
273	Total	40	26	14	..	..	..	..	..
II	No power	40	26	14	..	..	..	..	..
274	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
279	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
28	Total	11	5	6	..	..	..	..	..
I	All fuel	3	..	3	..	..	..	..	..
(a)	Electricity	3	..	3	..	..	..	..	..
II	No power	8	5	3	..	..	..	..	..
280	Total	3	..	3	..	..	..	..	..
I	All fuel	3	..	3	..	..	..	..	..
(a)	Electricity	3	..	3	..	..	..	..	..
281	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
282	Total	5	3	2	..	..	..	..	..
II	No power	5	3	2	..	..	..	..	..
30	Total	1	..	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
303	Total	1	..	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
31	Total	28	16	12	..	..	..	..	..
II	No power	28	16	12	..	..	..	..	..
311	Total	28	16	12	..	..	..	..	..
II	No power	28	16	12	..	..	..	..	..
36	Total	10	6	4	..	..	..	..	..
II	No power	10	6	4	..	..	..	..	..
365	Total	3	1	2	..	..	..	..	..
II	No power	3	1	2	..	..	..	..	..
369	Total	7	5	2	..	..	..	..	..
II	No power	7	5	2	..	..	..	..	..
37	Total	2	1	1	..	..	..	..	..
II	No power	2	1	1	..	..	..	..	..
378	Total	1	1		..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
379	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
38	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		CHAMBA DISTRICT—Urban—*concld.*							
388	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
	Total	17	11	5	1	..	..	..	..
II	No power	17	11	5	1	..	..	..	..
2	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
393	Total	13	8	4	1	..	..	..	..
II	No power	13	8	4	1	..	..	..	..
399	Total	2	1	1	..	..	..	..	..
II	No power	2	1	1	..	..	..	..	..
		MANDI DISTRICT—Rural							
2 & 3	Total	10,951	10,098	823	24	5	1	..	..
I	All fuel	5,981	5,850	117	12	1	1	..	..
(a)	Electricity	25	12	11	..	1	1	..	..
(b)	Liquid fuel	11	8	2	1	..	..	..	..
(d)	Other power	5,945	5,830	104	11	..	..	..	..
II	No power	4,970	4,248	706	12	4	..	..	..
20	Total	5,985	5,856	116	12	1	..	..	..
I	All fuel	5,973	5,845	115	12	1	..	..	..
(a)	Electricity	22	12	9	..	1	..	..	..
(b)	Liquid fuel	11	8	2	1	..	..	..	..
(d)	Other power	5,940	5,825	104	11	..	..	..	..
II	No power	12	11	1	..	..	..	..	..
200	Total	5,831	5,709	113	8	1	..	..	..
I	All fuel	5,831	5,709	113	8	1	..	..	..
(a)	Electricity	22	12	9	..	1	..	..	..
(b)	Liquid fuel	7	4	2	1	..	..	..	..
(d)	Other power	5,802	5,693	102	7	..	..	..	..
202	Total	7	6	1	..	..	..	..	..
I	All fuel	2	2	..	..	..	..	..	..
(d)	Other power	2	2	..	..	..	..	..	..
II	No power	5	4	1	..	..	..	..	..
205	Total	3	3	..	..	..	..	..	..
II	No power	3	3	..	..	..	..	..	..
206	Total	4	4	..	..	..	..	..	..
II	No power	4	4	..	..	..	..	..	..
207	Total	140	134	2	4	..	..	..	..
I	All fuel	140	134	2	4	..	..	..	..
(b)	Liquid fuel	4	4	..	..	..	..	..	..
(d)	Other power	136	130	2	4	..	..	..	..
21	Total	4	3	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	3	3	..	..	..	..	..	..
211	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
217	Total	3	2	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	2	2	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MANDI DISTRICT—Rural—*contd.*							
23	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
230	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
236	Total	4	4	..	..	..	..	..	..
II	No power	4	4	..	..	..	..	..	..
25	Total	822	677	134	9	2	..	..	..
I	All fuel	4	4	..	..	..	..	..	..
(*d*)	Other power	4	4	..	..	..	..	..	..
II	No power	818	673	134	9	2	..	..	..
251	Total	4	4	..	..	..	..	..	..
I	All fuel	4	4	..	..	..	..	..	..
(*d*)	Other power	4	4	..	..	..	..	..	..
255	Total	818	673	134	9	2	..	..	..
II	No power	818	673	134	9	2	..	..	..
27	Total	704	633	69	..	2	..	..	..
II	No power	704	633	69	..	2	..	..	..
271	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
273	Total	703	633	68	..	2	..	..	..
II	No power	703	633	68	..	2	..	..	..
28	Total	967	850	117	..	..	..	..	..
I	All fuel	3	1	2	..	..	..	..	..
(*a*)	Electricity	2	..	2	..	..	..	..	..
(*d*)	Other power	1	1	..	..	..	..	..	..
II	No power	964	849	115	..	..	..	..	..
289	Total	3	1	2	..	.	..	..	..
I	All fuel	3	1	2	..	..	..	..	..
(*a*)	Electricity	2	..	2	..	..	..	..	..
(*d*)	Other power	1	1	..	..	..	..	..	..
282	Total	544	490	54	..	..	..	..	..
II	No power	544	490	54	..	..	..	..	..
288	Total	420	359	61	..	..	..	..	..
II	No power	420	359	61	..	..	..	..	..
31	Total	1,099	948	150	1	..	..	..	..
II	No power	1,099	948	150	1	..	..	..	..
311	Total	1,075	926	148	1	..	..	..	..
II	No power	1,075	926	148	1	..	..	..	..
314	Total	24	22	2	..	..	..	..	..
II	No power	24	22	2	..	..	..	..	..
33	Total	4	4	..	..	..	..	..	..
II	No power	4	4	..	..	..	..	..	..
333	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
335	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MANDI DISTRICT—Rural—*concld.*							
336	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
35	Total	358	251	105	2	..	..	..	..
	II No power	358	251	105	2	..	..	..	..
350	Total	358	251	105	2	..	..	..	..
	II No power	358	251	105	2	..	..	..	..
36	Total	864	744	120	..	..	..	..	..
	II No power	864	744	120	..	..	..	..	..
362	Total	1	..	1	..	..	..	..	..
	II No power	1	..	1	..	..	..	..	..
65	Total	18	13	5	..	..	..	..	..
	II No power	18	13	5	..	..	..	..	..
369	Total	845	731	114	..	..	..	..	..
	II No power	845	731	114	..	..	..	..	..
37	Total	2	2	..	..	..	..	..	..
	II No power	2	2	..	..	..	..	..	..
378	Total	2	2	..	..	..	..	..	..
	II No power	2	2	..	..	..	..	..	..
39	Total	137	125	12	..	..	..	..	..
	II No power	137	125	12	..	..	..	..	..
392	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
393	Total	136	124	12	..	..	..	..	..
	II No power	136	124	12	..	..	..	..	..
		MANDI DISTRICT—Urban							
2 3	Total	838	659	160	6	7	6	..	..
	I All fuel	102	81	11	3	2	5	..	..
	(*a*) Electricity	16	1	5	3	2	5	..	..
	(*d*) Other power	86	80	6	..	..	..	..	..
	II No power	736	578	149	3	5	1	..	..
20	Total	100	85	14	1	..	..	..	..
	I All fuel	90	81	8	1	..	..	..	..
	(*a*) Electricity	4	1	2	1	..	..	..	..
	(*d*) Other power	86	80	6	..	..	..	..	..
	II No power	10	4	6	..	..	..	..	..
200	Total	84	75	8	1	..	..	..	..
	I All fuel	84	75	8	1	..	..	..	..
	(*a*) Electricity	4	1	2	1	..	..	..	..
	(*d*) Other power	80	74	6	..	..	..	..	..
205	Total	8	3	5	..	..	..	..	..
	II No power	8	3	5	..	..	..	..	..
206	Total	2	1	1	..	..	..	..	..
	II No power	2	1	1	..	..	..	..	..
207	Total	6	6	..	..	..	..	..	..
	I All fuel	6	3	..	..	..	..	..	..
	(*d*) Other power	6	6	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MANDI DISTRICT—Urban—*contd.*							
21	Total	8	7	1	..	..	..	..	..
II	No power	8	7	1	..	..	..	..	..
214	Total	8	7	1	..	..	..	..	..
II	No power	8	7	1	..	..	..	..	..
23	Total	20	12	5	..	3	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(*a*)	Electricity	1	..	1	..	..	..	..	..
II	No power	19	12	4	..	3	..	..	..
230	Total	1	..	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(*a*)	Electricity	1	..	1	..	..	..	..	..
233	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
236	Total	18	11	4	..	3	..	..	..
II	No power	18	11	4	..	3	..	..	..
25	Total	17	14	3	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(*a*)	Electricity	1	..	1	..	..	..	..	..
II	No power	16	14	2	..	..	..	..	..
251	Total	1	..	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(*a*)	Electricity	1	..	1	..	..	..	..	..
255	Total	16	14	2	..	..	..	..	..
II	No power	16	14	2	..	..	..	..	..
26	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
262	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
27	Total	247	203	41	1	1	1	..	..
II	No power	247	203	41	1	1	1	..	..
271	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
272	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
273	Total	241	197	41	1	1	1	..	..
II	No power	241	197	41	1	1	1	..	..
274	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
279	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
28	Total	121	98	22	1	..	..	..	..
I	All fuel	2	..	1	1	..	..	..	..
(*a*)	Electricity	2	..	1	1	..	..	..	..
II	No power	119	98	21	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MANDI DISTRICT—Urban—*contd.*							
280	Total	7	2	4	1	..	..	..	..
I	All fuel	2	..	1	1	..	..	..	..
(a)	Electricity	2	..	1	1	..	..	..	..
II	No power	5	2	3	..	..	..	..	..
281	Total	9	6	3	..	..	..	..	..
II	No power	9	6	3	..	..	..	..	..
282	Total	73	61	12	..	..	..	..	..
II	No power	73	61	12	..	..	..	..	..
288	Total	31	28	3	..	..	..	..	..
II	No power	31	28	3	..	..	..	..	..
289	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
29	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
292	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
30	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
303	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
31	Total	174	136	36	1	1	..	..	..
II	No power	174	136	36	1	1	..	..	..
311	Total	174	136	36	1	1	..	..	..
II	No power	174	136	36	1	1	..	..	..
33	Total	4	2	1	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	3	2	1	..	..	..	..	..
333	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
335	Total	2	..	1	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	1	..	1	..	..	..	..	..
339	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
34	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
343	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
35	Total	27	24	3	..	..	..	..	..
II	No power	27	24	3	..	..	..	..	..
350	Total	26	23	3	..	..	..	..	..
II	No power	26	23	3	..	..	..	..	..
356	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MANDI DISTRICT—Urban—*concld.*							
36	Total	56	39	12	1	2	2	..	..
I	All fuel	5	..	..	1	2	2	..	..
(a)	Electricity	5	..	..	1	2	2	..	..
II	No power	51	39	12	..	..	..	..	..
362	Total	5	2	..	..	1	2	..	..
I	All fuel	3	..	..	..	1	2	..	..
(a)	Electricity	3	..	..	..	1	2	..	..
II	No power	2	2	..	..	..	..	..	..
365	Total	1	..	..	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(a)	Electricity	1	..	..	1	..	..	..	..
369	Total	50	37	12	..	1	..	..	..
I	All fuel	1	..	..	..	1	..	..	..
(a)	Electricity	1	..	..	..	1	..	..	..
II	No power	49	37	12	..	..	..	..	..
37	Total	2	1	1	..	..	..	..	..
II	No power	2	1	1	..	..	..	..	..
378	Total	2	1	1	..	..	..	..	..
II	No power	2	1	1	..	..	..	..	..
38	Total	11	4	4	1	..	2	..	..
I	All fuel	2	..	..	..	..	2	..	..
(a)	Electricity	2	..	..	..	..	2	..	..
II	No power	9	4	4	1	..	..	..	..
384	Total	5	..	2	1	..	2	..	..
I	All fuel	2	..	..	..	..	2	..	..
(a)	Electricity	2	..	..	..	..	2	..	..
II	No power	3	..	2	1	..	..	..	..
388	Total	6	4	2	..	..	..	..	..
II	No power	6	4	2	..	..	..	..	..
39	Total	46	31	15	..	..	..	..	..
II	No power	46	31	15	..	..	..	..	..
392	Total	10	6	4	..	..	..	..	..
II	No power	10	6	4	..	..	..	..	..
393	Total	35	25	10	..	..	..	..	..
II	No power	35	25	10	..	..	..	..	..
399	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
		BILASPUR DISTRICT—Rural							
2 & 3	Total	2,737	2,289	443	5	..	..	..	..
I	All fuel	1,017	909	107	1	..	..	..	..
(a)	Electricity	8	6	2	..	..	..	..	..
(b)	Liquid fuel	9	5	4	..	..	..	..	.
(d)	Other power	1,000	898	101	1	..	..	..	..
II	No power	1,720	1,380	336	4	..	..	..	..
20	Total	1,012	905	106	1	..	..	..	..
I	All fuel	1,011	904	106	1	..	..	..	..
(a)	Electricity	8	6	2	..	..	..	..	..
(b)	Liquid fuel	8	5	3	..	..	..	..	..
(d)	Other power	995	893	101	1	..	..	..	..
II	No power	1	1	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		BILASPUR DISTRICT—Rural—*contd.*							
200	Total	986	881	104	1	..	..	..	..
I	All fuel	986	881	104	1	..	..	..	..
(*a*)	Electricity	8	6	2	..	..	..	..	..
(*b*)	Liquid fuel	6	3	3	..	..	..	..	..
(*d*)	Other power	972	872	99	1	..	..	..	..
202	Total	3	3	..	..	..	..	..	..
I	All fuel	2	2	..	..	..	..	..	..
(*b*)	Liquid fuel	2	2	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
207	Total	23	21	2	..	..	..	..	..
I	All fuel	23	21	2	..	..	..	..	..
(*d*)	Other power	23	21	2	..	..	..	..	..
23	Total	23	21	2	..	..	..	..	..
I	All fuel	6	5	1	..	..	..	..	..
(*b*)	Liquid fuel	1	..	1	..	..	..	..	..
(*d*)	Other power	5	5	..	..	..	..	..	..
II	No power	17	16	1	..	..	..	..	..
230	Total	12	11	1	..	..	..	..	..
I	All fuel	6	5	1	..	..	..	..	..
(*b*)	Liquid fuel	1	..	1	..	..	..	..	..
(*d*)	Other power	5	5	..	..	..	..	..	..
II	No power	6	6	..	..	..	..	..	..
233	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
236	Total	9	9	..	..	..	..	..	..
II	No power	9	9	..	..	..	..	..	..
239	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
24	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
244	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
25	Total	109	83	25	1	..	..	..	..
II	No power	109	83	25	1	..	..	..	..
251	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
255	Total	108	82	25	1	..	..	..	..
II	No power	108	82	25	1	..	..	..	..
27	Total	310	275	35	..	..	..	..	..
II	No power	310	275	35	..	..	..	..	..
270	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
271	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
272	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
273	Total	305	270	35	..	..	..	..	..
II	No power	305	270	35	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		BILASPUR DISTRICT—Rural—*concld.*							
28	Total	162	127	35	..	..	..	..	..
II	No power	162	127	35	..	..	..	..	..
280	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
281	Total	3	3	..	..	..	..	..	..
II	No power	3	3	..	..	..	..	..	..
282	Total	101	80	21	..	..	..	..	..
II	No power	101	80	21	..	..	..	..	..
288	Total	57	43	14	..	..	..	..	..
II	No power	57	43	14	..	..	..	..	..
31	Total	540	442	96	2	..	..	..	..
II	No power	540	442	96	2	..	..	..	..
310	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
311	Total	535	438	95	2	..	..	..	..
II	No power	535	438	95	2	..	..	..	..
314	Total	4	3	1	..	..	..	..	..
II	No power	4	3	1	..	..	..	..	..
35	Total	97	53	44	..	..	..	..	..
II	No power	97	53	44	..	..	..	..	..
350	Total	97	53	44	..	..	..	..	..
II	No power	97	53	44	..	..	..	..	..
36	Total	440	349	90	1	..	..	..	..
II	No power	440	349	90	1	..	..	..	..
365	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
369	Total	438	347	90	1	..	..	..	..
II	No power	438	347	90	1	..	..	..	..
39	Total	42	32	10	..	..	..	..	..
II	No power	42	32	10	..	..	..	..	..
393	Total	42	32	10	..	..	..	..	..
II	No power	42	32	10	..	..	..	..	..
		BILASPUR DISTRICT—Urban							
2 & 3	Total	272	200	71	..	..	1	..	..
I	All fuel	46	32	13	..	..	1	..	..
(*a*)	Electricity	1	..	..	..	..	1	..	..
(*d*)	Other power	45	32	13	..	..	..	..	..
II	No power	226	168	58	..	..	..	..	..
20	Total	45	31	14	..	..	..	..	..
I	All fuel	44	31	13	..	..	..	..	..
(*d*)	Other power	44	31	13	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
200	Total	39	29	10	..	..	..	..	..
I	All fuel	39	29	10	..	..	..	..	..
(*d*)	Other power	39	29	10	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.		Kind of fuel or power used	No. of factories and workshops by size of employment							
			Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1		2	3	4	5	6	7	8	9	10
			BILASPUR DISTRICT—Urban—*contd.*							
205		Total	1	..	1	..	..	..	..	..
	II	No power	1	..	1	..	..	..	..	..
207		Total	5	2	3	..	..	..	..	..
	I	All fuel	5	2	3	..	..	..	..	..
	(*d*)	Other power	5	2	3	..	..	..	..	..
23		Total	7	5	2	..	..	..	..	..
	I	All fuel	1	1	..	..	..	..	..	..
	(*d*)	Other power	1	1	..	..	..	..	..	..
	II	No power	6	4	2	..	..	..	..	..
230		Total	1	1	..	..	..	..	..	..
	I	All fuel	1	1	..	..	..	..	..	..
	(*d*)	Other power	1	1	..	..	..	..	..	..
233		Total	1	1	..	..	..	..	..	..
	II	No power	1	1	..	..	..	..	..	..
236		Total	4	2	2	..	..	..	..	..
	II	No power	4	2	2	..	..	..	..	..
237		Total	1	1	..	..	..	..	..	..
	II	No power	1	1	..	..	..	..	..	..
25		Total	1	..	1	..	..	..	..	..
	II	No power	1	..	1	..	..	..	..	..
255		Total	1	..	1	..	..	..	..	..
	II	No power	1	..	1	..	..	..	..	..
27		Total	70	50	20	..	..	..	..	..
	II	No power	70	50	20	..	..	..	..	..
272		Total	1	1	..	..	..	..	..	..
	II	No power	1	1	..	..	..	..	..	..
273		Total	68	48	20	..	..	..	..	..
	II	No power	68	48	20	..	..	..	..	..
279		Total	1	1	..	..	..	..	..	..
	II	No power	1	1	..	..	..	..	..	..
28		Total	57	43	14	..	..	..	..	..
	II	No power	57	43	14	..	..	..	..	..
280		Total	3	1	2	..	..	..	..	..
	II	No power	3	1	2	..	..	..	..	..
281		Total	9	8	1	..	..	..	..	..
	II	No power	9	8	1	..	..	..	..	..
282		Total	36	27	9	..	..	..	..	..
	II	No power	36	27	9	..	..	..	..	..
288		Total	9	7	2	..	..	..	..	..
	II	No power	9	7	2	..	..	..	..	..
31		Total	27	20	7	..	..	..	..	..
	II	No power	27	20	7	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		BILASPUR DISTRICT—Urban—*concld.*							
311	Total	27	20	7	..	..	..	..	..
II	No power	27	20	7	..	..	..	..	..
33	Total	4	3	1	..	..	..	..	..
II	No power	4	3	1	..	..	..	..	..
333	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
335	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
34	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
343	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
35	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
350	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
36	Total	13	12	1	..	..	..	..	..
II	No power	13	12	1	..	..	..	..	..
365	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
369	Total	11	10	1	..	..	..	..	..
II	No power	11	10	1	..	..	..	..	..
37	Total	3	3	..	..	..	..	..	..
II	No power	3	3	..	..	..	..	..	..
378	Total	3	3	..	..	..	..	..	..
II	No power	3	3	..	..	..	..	..	..
38	Total	7	6	..	..	..	1	..	.
I	All fuel	1	..	..	..	..	1	..	.
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	6	6	..	..	..	..	..	..
384	Total	3	2	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	2	2	..	..	..	..	..	..
388	Total	4	4	..	..	..	..	..	..
II	No power	4	4	..	..	..	..	..	..
39	Total	34	24	10	..	..	..	..	..
II	No power	34	24	10	..	..	..	..	..
392	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
393	Total	31	22	9	..	..	..	..	..
II	No power	31	22	9	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MAHASU DISTRICT—Rural							
2 & 3	Total	9,916	9,054	835	19	2	4	1	1
I	All fuel	4,874	4,831	31	5	1	4	1	1
(a)	Electricity	11	..	3	1	1	4	1	1
(b)	Liquid fuel	8	3	2	3	..	..	..	..
(d)	Other power	4,855	4,828	26	1	..	..	..	..
II	No power	5,042	4,223	804	14	1	..	..	..
20	Total	4,859	4,829	29	1	..	..	..	..
I	All fuel	4,859	4,829	29	1	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
(b)	Liquid fuel	3	1	2	..	..	..	..	..
(d)	Other power	4,855	4,828	26	1	..	..	..	..
200	Total	4,833	4,805	27	1	..	..	..	..
I	All fuel	4,833	4,805	27	1	..	..	..	..
(b)	Liquid fuel	2	1	1	..	..	..	..	..
(d)	Other power	4,831	4,804	26	1	..	..	..	..
207	Total	26	24	2	..	..	..	..	..
I	All fuel	26	24	2	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
(b)	Liquid fuel	1	..	1	..	..	..	..	..
(d)	Other power	24	24	..	..	..	..	..	..
21	Total	1	..	..	..	..	..	..	1
I	All fuel	1	..	..	..	..	..	..	1
(a)	Electricity	1	..	..	..	..	..	..	1
210	Total	1	..	..	..	..	..	..	1
I	All fuel	1	..	..	..	..	..	..	1
(a)	Electricity	1	..	..	..	..	..	..	1
23	Total	29	26	3	..	..	..	..	..
II	No power	29	26	3	..	..	..	..	..
230	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
236	Total	28	25	3	..	..	..	..	..
II	No power	28	25	3	..	..	..	..	..
24	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
244	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
25	Total	810	687	118	5	..	..	..	..
II	No power	810	687	118	5	..	..	..	..
255	Total	810	687	118	5	..	..	..	..
II	No power	810	687	118	5	..	..	..	..
27	Total	1,293	1,156	136	1	..	..	..	..
II	No power	1,293	1,156	136	1	..	..	..	..
271	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
273	Total	1,291	1,154	136	1	..	..	..	..
II	No power	1,291	1,154	136	1	..	..	..	..
279	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MAHASU DISTRICT—Rural—*contd.*							
28	Total	1,177	968	202	6	1	..	..	..
I	All fuel	8	2	1	4	1	..	..	..
(*a*)	Electricity	3	..	1	1	1	..	..	..
(*b*)	Liquid fuel	5	2	..	3	..	..	..	..
II	No power	1,169	966	201	2	..	..	..	..
280	Total	8	3	1	3	1	..	..	..
I	All fuel	7	2	1	3	1	..	..	..
(*a*)	Electricity	2	..	1	..	1	..	..	..
(*b*)	Liquid fuel	5	2	..	3	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
282	Total	726	634	91	1	..	..	..	..
II	No power	726	634	91	1	..	..	..	..
284	Total	1	..	..	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(*a*)	Electricity	1	..	..	1	..	..	..	..
287	Total	1	..	1	..	.	..	..	..
II	No power	1	..	1	..	.	..	..	..
288	Total	441	331	109	1	.	..	..	..
II	No power	441	331	109	1	.	..	..	..
31	Total	762	592	167	2	1	..	..	..
II	No power	762	592	167	2	1	..	..	..
311	Total	757	587	167	2	1	..	..	..
II	No power	757	587	167	2	1	..	..	..
314	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..
33	Total	2	1	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(*a*)	Electricity	1	..	..	..	..	1	..	..
II	No power	1	1	..	..	..	..	..	..
335	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
337	Total	1	..	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(*a*)	Electricity	1	..	..	..	..	1	..	..
35	Total	104	84	18	2	..	..	..	..
II	No power	104	84	18	2	..	..	..	..
350	Total	104	84	18	2	..	..	..	..
II	No power	104	84	18	2	..	..	..	..
36	Total	680	550	129	1	..	..	..	..
II	No power	680	550	129	1	..	..	..	..
362	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
365	Total	21	14	7	..	..	..	..	..
II	No power	21	14	7	..	..	..	..	..
368	Total	5	5	..	..	..	..	..	..
II	No power	5	5	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MAHASU DISTRICT—Rural—*concld.*							
369	Total	652	529	122	1	..	..	..	..
II	No power	652	529	122	1	..	..	..	..
37	Total	3	2	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
372	Total	1	..	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
378	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
38	Total	6	2	..	..	..	3	1	..
I	All fuel	4	..	..	..	..	3	1	..
(a)	Electricity	4	..	..	..	..	3	1	..
II	No power	2	2	..	..	..	..	..	..
384	Total	4	..	..	..	..	3	1	..
I	All fuel	4	..	..	..	..	3	1	..
(a)	Electricity	4	..	..	..	..	3	1	..
388	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
39	Total	188	155	32	1	..	..	..	..
II	No power	188	155	32	1	..	..	..	..
392	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
393	Total	187	154	32	1	..	..	..	..
II	No power	187	154	32	1	..	..	..	..
		MAHASU DISTRICT—Urban							
2&3	Total	345	208	122	4	2	3		5
I	All fuel	28	9	9	2	1	1	1	5
(a)	Electricity	20	2	8	2	1	1	1	5
(b)	Liquid fuel	2	1	1	..	..	..	..	..
(d)	Other power	6	6	..	..	..	..	..	..
II	No power	317	199	113	2	1	2	..	..
20	Total	18	9	9	..	..	..	..	..
I	All fuel	11	8	3	..	..	..	..	..
(a)	Electricity	3	1	2	..	..	..	..	..
(b)	Liquid fuel	2	1	1	..	..	..	..	..
(d)	Other power	6	6	..	..	..	..	..	..
II	No power	7	1	6	..	..	..	..	..
200	Total	10	7	3	..	..	..	..	..
I	All fuel	10	7	3	..	..	..	..	..
(a)	Electricity	2	..	2	..	..	..	..	..
(b)	Liquid fuel	2	1	1	..	..	..	..	..
(d)	Other power	6	6	..	..	..	..	..	..
205	Total	7	1	6	..	..	..	..	..
II	No power	7	1	6	..	..	..	..	..
207	Total	1	1	..	..	..	..	..	..
I	All fuel	1	1	..	..	..	..	..	..
(a)	Electricity	1	1	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MAHASU DISTRICT—Urban—*contd.*							
21	Total	6	..	2	..	1	..	..	3
I	All fuel	4	..	..	..	1	..	..	3
(a)	Electricity	4	..	..	..	1	..	..	3
II	No power	2	..	2	..	..	..	..	..
210	Total	3	..	..	..	..	..	..	3
I	All fuel	3	..	..	..	..	..	..	3
(a)	Electricity	3	..	..	..	..	..	..	3
214	Total	3	..	2	..	1	..	..	..
I	All fuel	1	..	..	..	1	..	..	..
(a)	Electricity	1	..	..	..	1	..	..	..
II	No power	2	..	2	..	..	..	..	..
23	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
230	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
25	Total	10	6	..	1	1	2	..	..
II	No power	10	6	..	1	1	2	..	..
255	Total	10	6	..	1	1	2	..	
II	No power	10	6	..	1	1	2	..	..
27	Total	114	68	45	1	..	..	..	..
I	All fuel	3	1	2	..	..	..	..	..
(a)	Electricity	3	1	2	..	..	..	..	..
II	No power	111	67	43	1	..	..	..	..
270	Total	1	..	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
271	Total	5	2	3	..	..	..	..	..
I	All fuel	2	1	1	..	..	..	..	..
(a)	Electricity	2	1	1	..	..	..	..	..
II	No power	3	1	2	..	..	..	..	..
273	Total	108	66	41	1	..	..	..	..
II	No power	108	66	41	1	..	..	..	..
28	Total	37	24	12	..	..	..	..	1
I	All fuel	2	..	1	..	..	..	..	1
(a)	Electricity	2	..	1	..	..	..	..	1
II	No power	35	24	11	..	..	..	..	..
280	Total	2	1	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
281	Total	3	3	..	..	..	..	..	..
II	No power	3	3	..	..	..	..	..	..
282	Total	30	19	11	..	..	..	..	..
II	No power	30	19	11	..	..	..	..	..
284	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MAHASU DISTRICT—Urban—*contd.*							
287	Total	1	..	..	..	..	..	..	1
I	All fuel	1	..	..	..	..	..	..	1
(a)	Electricity	1	..	..	..	..	..	..	1
30	Total	3	..	3	..	..	..	..	..
I	All fuel	3	..	3	..	..	..	..	..
(a)	Electricity	3	..	3	..	..	..	..	..
302	Total	3	..	3	..	..	..	..	..
I	All fuel	3	..	3	..	..	..	..	..
(a)	Electricity	3	..	3	..	..	..	..	..
31	Total	82	52	30	..	..	..	..	..
II	No power	82	52	30	..	..	..	..	..
311	Total	82	52	30	..	..	..	..	..
II	No power	82	52	30	..	..	..	..	..
33	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
336	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
36	Total	17	11	4	2	..	..	..	..
I	All fuel	2	..	..	2	..	..	..	..
(a)	Electricity	2	..	..	2	..	..	..	..
II	No power	15	11	4	..	..	..	..	..
365	Total	2	..	..	2	..	..	..	..
I	All fuel	2	..	..	2	..	..	..	..
(a)	Electricity	2	..	..	2	..	..	..	..
369	Total	15	11	4	..	..	..	..	..
II	No power	15	11	4	..	..	..	..	..
37	Total	8	3	3	..	..	..	1	1
I	All fuel	2	..	..	..	..	..	1	1
(a)	Electricity	2	..	..	..	..	..	1	1
II	No power	6	3	3	..	..	..	..	..
372	Total	2	..	..	..	..	..	1	1
I	All fuel	2	..	..	..	..	..	1	1
(a)	Electricity	2	..	..	..	..	..	1	1
378	Total	6	3	3	..	..	..	..	..
II	No power	6	3	3	..	..	..	..	..
38	Total	9	7	2	..	..	..	..	..
II	No power	9	7	2	..	..	..	..	..
384	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
388	Total	7	6	1	..	..	..	..	..
II	No power	7	6	1	..	..	..	..	..
389	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
39	Total	38	26	11	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
II	No power	37	26	11	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		MAHASU DISTRICT—Urban—*concld.*							
391	Total	1	..	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
392	Total	10	10	..	..	..	..	..	..
II	No power	10	10	..	..	..	..	..	..
393	Total	25	14	11	..	..	..	..	..
II	No power	25	14	11	..	..	..	..	..
399	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
		SIRMUR DISTRICT—Rural							
2 & 3	Total	3,904	3,481	415	6	..	2	..	..
I	All fuel	1,509	1,497	8	3	..	1	..	..
(a)	Electricity	2	..	1	..	..	1	..	..
(b)	Liquid fuel	3	..	2	1	..	..	..	..
(c)	Coal, wood and bagasse	1	..	..	1	..	..	..	..
(d)	Other power	1,503	1,497	5	1	..	..	..	..
II	No power	2,395	1,984	407	3	..	1	..	..
20	Total	1,508	1,497	8	2	..	1	..	..
I	All fuel	1,507	1,497	7	2	..	1	..	..
(a)	Electricity	2	..	1	..	..	1	..	..
(b)	Liquid fuel	2	..	1	1	..	..	..	..
(d)	Other power	1,503	1,497	5	1	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
200	Total	1,461	1,454	5	2	..	..	..	..
I	All fuel	1,461	1,454	5	2	..	..	..	..
(a)	Electricity	1	..	1	..	..	..	..	..
(b)	Liquid fuel	2	..	1	1	..	..	..	..
(d)	Other power	1,458	1,454	3	1	..	..	..	..
201	Total	1	..	..	..	..	1	..	..
I	All fuel	1	..	..	..	..	1	..	..
(a)	Electricity	1	..	..	..	..	1	..	..
205	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
207	Total	45	43	2	..	..	..	..	..
I	All fuel	45	43	2	..	..	..	..	..
(d)	Other power	45	43	2	..	..	..	..	..
23	Total	2	1	..	1	..	..	..	..
II	No power	2	1	..	1	..	..	..	..
236	Total	2	1	..	1	..	..	..	..
II	No power	2	1	..	1	..	..	..	..
25	Total	172	153	19	..	..	..	..	..
II	No power	172	153	19	..	..	..	..	..
266	Total	172	153	19	..	..	..	..	..
II	No power	172	153	19	..	..	..	..	..
26	Total	1	..	..	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(c)	Coal, wood and Bagasse	1	..	..		..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		SIRMUR DISTRICT—Rural—*contd.*							
260	Total	1	..	..	1	..	..	..	..
I	All fuel	1	..	..	1	..	..	..	..
(c)	Coal, wood and bagasse	1	..	..	1	..	..	..	..
27	Total	575	518	57	..	..	..	..	..
II	No power	575	518	57	..	..	..	..	..
279	Total	575	518	57	..	..	..	..	..
II	No power	575	518	57	..	..	..	..	..
28	Total	553	447	104	2	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(b)	Liquid fuel	1	..	1	..	..	..	..	..
II	No power	552	447	103	2	..	..	..	..
280	Total	1	..	1	..	..	..	..	..
I	All fuel	1	..	1	..	..	..	..	..
(b)	Liquid fuel	1	..	1	..	..	..	..	..
281	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
282	Total	264	224	40	..	..	..	..	..
II	No power	264	224	40	..	..	..	..	..
288	Total	287	222	63	2	..	..	..	..
II	No power	287	222	63	2	..	..	..	..
31	Total	610	476	134	..	..	..	..	..
II	No power	610	476	134	..	..	..	..	..
311	Total	610	476	134	..	..	..	..	..
II	No power	610	476	134	..	..	..	..	..
34	Total	2	1	..	..	..	1	..	..
II	No power	2	1	..	..	..	1	..	..
340	Total	2	1	..	..	..	1	..	..
II	No power	2	1	..	..	..	1	..	..
35	Total	61	44	17	..	..	..	..	..
II	No power	61	44	17	..	..	..	..	..
350	Total	61	44	17	..	..	..	..	..
II	No power	61	44	17	..	..	..	..	..
36	Total	350	286	64	..	..	..	..	..
II	No power	350	286	64	..	..	..	..	..
365	Total	4	4	..	..	..	..	..	..
II	No power	4	4	..	..	..	..	..	..
368	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
369	Total	343	280	63	..	..	..	..	..
II	No power	343	280	63	..	..	..	..	..
37	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
378	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		SIRMUR DISTRICT—Rural—*concld.*							
38	Total	3	1	2	..	..	..	..	..
II	No power	3	1	2	..	..	..	..	..
388	Total	3	1	2	..	..	..	..	..
II	No power	3	1	2	..	..	..	..	..
39	Total	66	56	10	..	..	..	..	..
II	No power	66	56	10	..	..	..	..	..
393	Total	66	56	10	..	..	..	..	..
II	No power	66	56	10	..	..	..	..	..
		SIRMUR DISTRICT—Urban							
2&3	Total	323	244	71	4	2	..	..	2
I	All fuel	22	13	5	..	2	..	..	2
(*a*)	Electricity	12	4	4	..	2	..	..	2
(*b*)	Liquid fuel	1	..	1	..	..	..	..	..
(*d*)	Other power	9	9	..	..	..	..	..	..
II	No power	301	231	66	4	..	..	..	..
20	Total	23	16	7	..	..	..	..	..
I	All fuel	18	13	5	..	..	..	..	..
(*a*)	Electricity	8	4	4	..	..	..	..	..
(*b*)	Liquid fuel	1	..	1	..	..	..	..	..
(*d*)	Other power	9	9	..	..	..	..	..	..
II	No power	5	3	2	..	..	..	..	..
200	Total	15	11	4	..	..	..	..	..
I	All fuel	15	11	4	..	..	..	..	..
(*a*)	Electricity	5	2	3	..	..	..	..	..
(*b*)	Liquid fuel	1	..	1	..	..	..	..	..
(*d*)	Other power	9	9	..	..	..	..	..	..
205	Total	4	2	2	..	..	..	..	..
II	No power	4	2	2	..	..	..	..	..
206	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
207	Total	3	2	1	..	..	..	..	..
I	All fuel	3	2	1	..	..	..	..	..
(*a*)	Electricity	3	2	1	..	..	..	..	..
21	Total	3	1	2	..	..	..	..	..
II	No power	3	1	2	..	..	..	..	..
210	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
214	Total	2	1	1	..	..	..	..	..
II	No power	2	1	1	..	..	..	..	..
23	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
239	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
25	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
255	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		SIRMUR DISTRICT—Urban—*contd.*							
27	Total	96	75	20	1	..	..	..	..
II	No power	96	75	20	1	..	..	..	..
270	Total	2	..	2	..	..	..	..	..
II	No power	2	..	2	..	..	..	..	..
271	Total	1	..	..	1	..	..	..	..
II	No power	1	..	..	1	..	..	..	..
273	Total	92	75	17	..	..	..	..	..
II	No power	92	75	17	..	..	..	..	..
278	Total	1	..	1	..	..	..	..	..
II	No power	1	..	1	..	..	..	..	..
28	Total	58	48	9	1	..	..	..	..
II	No power	58	48	9	1	..	..	..	..
280	Total	3	3	..	..	..	..	..	..
II	No power	3	3	..	..	..	..	..	..
281	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
282	Total	45	39	5	1	..	..	..	..
II	No power	45	39	5	1	..	..	..	..
284	Total	4	4	..	..	..	..	..	..
II	No power	4	4	..	..	..	..	..	..
288	Total	5	1	4	..	..	..	..	..
II	No power	5	1	4	..	..	..	..	..
30	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
302	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
31	Total	58	43	13	2	..	..	..	..
II	No power	58	43	13	2	..	..	..	..
311	Total	58	43	13	2	..	..	..	..
II	No power	58	43	13	2	..	..	..	..
33	Total	3	1	1	..	..	..	..	1
I	All fuel	1	..	..	..	..	..	..	1
(a)	Electricity	1	..	..	..	..	..	..	1
II	No power	2	1	1	..	..	..	..	..
333	Total	2	1	1	..	..	..	..	..
II	No power	2	1	1	..	..	..	..	..
337	Total	1	..	..	..	..	..	..	1
I	All fuel	1	..	..	..	..	..	..	1
(a)	Electricity	1	..	..	..	..	..	..	1
34	Total	3	3	..	..	..	..	..	..
II	No power	3	3	..	..	..	..	..	..
342	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		SIRMUR DISTRICT—Urban—*concld.*							
343	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
35	Total	9	4	5	..	..	..	..	..
II	No power	9	4	5	..	..	..	..	..
350	Total	8	3	5	..	..	..	..	..
II	No power	8	3	5	..	..	..	..	..
356	Total	1	1	..	..	..	..	..	..
II	No power	1	1	..	..	..	..	..	..
36	Total	35	28	5	..	1	..	..	1
I	All fuel	2	..	..	..	1	..	..	1
(a)	Electricity	2	..	..	..	1	..	..	1
II	No power	33	28	5	..	..	..	..	..
362	Total	4	3	1	..	..	..	..	..
II	No power	4	3	1	..	..	..	..	..
365	Total	4	1	2	..	1	..	..	..
I	All fuel	1	..	..	..	..	..	..	..
(a)	Electricity	1	..	..	..	1	..	..	..
II	No power	3	1	2	..	..	..	..	..
368	Total	6	6	..	..	..	..	..	..
II	No power	6	6	..	..	..	..	..	..
369	Total	21	18	2	..	..	..	..	1
I	All fuel	1	..	..	..	..	..	..	1
(a)	Electricity	1	..	..	..	..	..	..	1
II	No power	20	18	2	..	..	..	..	..
38	Total	4	2	1	..	1	..	..	..
I	All fuel	1	..	..	..	1	..	..	..
(a)	Electricity	1	..	..	..	1	..	..	..
II	No power	3	2	1	..	..	..	..	..
384	Total	2	1	..	..	1	..	..	..
I	All fuel	1	..	..	..	1	..	..	..
(a)	Electricity	1	..	..	..	1	..	..	..
II	No power	1	1	..	..	..	..	..	..
388	Total	2	1	1	..	..	..	..	..
II	No power	2	1	1	..	..	..	..	..
39	Total	25	18	7	..	..	..	..	..
II	No power	25	18	7	..	..	..	..	..
392	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
393	Total	22	16	6	..	..	..	..	..
II	No power	22	16	6	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		KINNAUR DISTRICT—Rural							
2 & 3	Total	1,996	1,617	372	5	2	..	..	..
	I All fuel	823	813	10	..	..	..	..	..
	(d) Other power	823	813	10	..	..	..	..	..
	II No power	1,173	804	362	5	2	..	..	..
20	Total	823	813	10	..	..	..	..	..
	I All fuel	823	813	10	..	..	..	..	..
	(d) Other power	823	813	10	..	..	..	..	..
200	Total	823	813	10	..	..	..	..	..
	I All fuel	823	813	10	..	..	..	..	..
	(d) Other power	823	813	10	..	..	..	..	..
23	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
233	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
24	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
244	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
25	Total	750	490	254	4	2	..	..	..
	II No power	750	490	254	4	2	..	..	..
251	Total	1	1	..	..	..	..	..	..
	II No power	1	1	..	..	..	..	..	..
255	Total	749	489	254	4	2	..	..	..
	II No power	749	489	254	4	2	..	..	..
27	Total	97	75	22	..	..	..	..	..
	II No power	97	75	22	..	..	..	..	..
271	Total	2	2	..	..	..	..	..	..
	II No power	2	2	..	..	..	..	..	..
273	Total	95	73	22	..	..	..	..	..
	II No power	95	73	22	..	..	..	..	..
28	Total	142	121	21	..	..	..	..	..
	II No power	142	121	21	..	..	..	..	..
280	Total	16	14	2	..	..	..	..	..
	II No power	16	14	2	..	..	..	..	..
281	Total	3	3	..	..	..	..	..	..
	II No power	3	3	..	..	..	..	..	..

E-III—Census Houses used as Factories and Workshops Classified by Industry, Power and no Power used and Size of Employment—contd.

Division, Major Group & Minor Group of I.S.I.C.	Kind of fuel or power used	No. of factories and workshops by size of employment							
		Total	1 person	2—5 persons	6—9 persons	10—19 persons	20—49 persons	50—99 persons	100 persons and above
1	2	3	4	5	6	7	8	9	10
		KINNAUR DISTRICT—Rural—*concld.*							
282	Total	121	102	19	..	..	..	..	..
II	No power	121	102	19	..	..	..	..	..
288	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
31	Total	19	16	3	..	..	..	..	..
II	No power	19	16	3	..	..	..	..	..
311	Total	17	14	3	..	..	..	..	..
II	No power	17	14	3	..	..	..	..	..
314	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
34	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
343	Total	2	2	..	..	..	..	..	..
II	No power	2	2	..	..	..	..	..	..
35	Total	30	17	13	..	..	..	..	..
II	No power	30	17	13	..	..	..	..	..
350	Total	30	17	13	..	..	..	..	..
II	No power	30	17	13	..	..	..	..	..
36	Total	115	71	43	1	..	..	..	..
II	No power	115	71	43	1	..	..	..	..
365	Total	3	2	1	..	..	..	..	..
II	No power	3	2	1	..	..	..	..	..
369	Total	112	69	42	1	..	..	..	..
II	No power	112	69	42	1	..	..	..	..
39	Total	16	10	6	..	..	..	..	..
II	No power	16	10	6	..	..	..	..	..
393	Total	16	10	6	..	..	..	..	..
II	No power	16	10	6	..	..	..	..	..

E-IV—Distribution of Sample Households Living in Census Houses used Predominant Material

(Based on

Predominant Material

Serial No.	Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Total No. of house-holds	Grass, Leaves, Reeds or Bamboo	Timber	Mud	Unburnt Bricks	Burnt Bricks
	1	2	3	4	5	6	7	8
	HIMACHAL PRADESH	**Total**	**53,719**	**63**	**717**	**6,396**	**2,714**	**602**
		Rural	**50,973**	**61**	**697**	**6,240**	**2,708**	**278**
		Urban	**2,746**	**2**	**20**	**156**	**6**	**324**
I.	CHAMBA DISTRICT	TOTAL	*8,517*	*4*	*70*	*425*	..	..
		RURAL	*8,175*	*4*	*68*	*425*	..	..
		URBAN	*342*	..	*2*	..	..	..
1	Chaurah Tehsil	Total	2,377	..	3	31	..	..
		Rural	2,377	..	3	31	..	..
		Urban	..	..	..	..	..	..
2	Pangi Sub-Tehsil	Total	334	..	1	..	..	..
		Rural	334	..	1	..	..	..
		Urban	..	..	..	..	..	..
3	Chamba Tehsil	Total	2,722	3	61	6	..	..
		Rural	2,380	3	59	6	..	..
		Urban	342	..	2	..	..	..
4	Bhattiyat Tehsil	Total	2,178	1	4	388	..	..
		Rural	2,178	1	4	388	..	..
		Urban	..	..	..	..	..	..
5	Brahmaur Sub-Tehsil	Total	906	..	1	..	..	..
		Rural	906	..	1	..	..	..
		Urban	..	..	..	..	..	..
II.	MANDI DISTRICT	TOTAL	*15,193*	*2*	*241*	*1,512*	*193*	*39*
		RURAL	*14,247*	*2*	*234*	*1,511*	*193*	*38*
		URBAN	*946*	..	*7*	*1*	..	*1*
1	Jogindarnagar Tehsil	Total	2,797	1	6	18	173	5
		Rural	2,660	1	6	18	173	5
		Urban	137	..	..	..	..	..
2	Mandi Sadar Tehsil	Total	3,442	..	11	411	4	3
		Rural	2,896	..	5	411	4	3
		Urban	546	..	6	..	..	..
3	Sarkaghat Tehsil	Total	3,352	..	1	109	1	..
		Rural	3,352	..	1	109	1	..
		Urban	..	..	..	..	..	..
4	Chichot Tehsil	Total	2,244	..	212	..	..	..
		Rural	2,244	..	212	..	..	..
		Urban	..	..	..	..	..	..
5	Sundarnagar Tehsil	Total	1,743	1	2	312	15	31
		Rural	1,480	1	1	311	15	30
		Urban	263	..	1	1	..	1
6	Karsog Tehsil	Total	1,615	..	9	662	..	..
		Rural	1,615	..	9	662	..	..
		Urban	..	..	..	..	..	..
III.	BILASPUR DISTRICT	TOTAL	*7,323*	*6*	*82*	*381*	*2,462*	*137*
		RURAL	*7,016*	*6*	*81*	*381*	*2,462*	*122*
		URBAN	*307*	..	*1*	..	..	*15*
1	Ghamarwin Tehsil	Total	4,099	..	75	319	2,451	18
		Rural	4,099	..	75	319	2,451	18
		Urban	..	..	..	..	..	..
2	Bilaspur Sadar Tehsil	Total	3,224	6	7	62	11	119
		Rural	2,917	6	6	62	11	104
		Urban	307	..	1	..	..	15

Wholly or Partly as Dwellings by Predominant Material of Wall and of Roof

20% Sample)

Predominant Material of Wall				Predominant Material of Roof							
C.I. sheets or other metal sheets	Stone	Cement concrete	All other material	Grass, leaves, Reeds, Thatch, Wood or Bamboo	Tiles, Slate, Shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Concrete and stone	All other Material	Serial No.
9	10	11	12	13	14	15	16	17	18	19	
86	43,014	96	31	13,326	28,487	3,802	289	17	1,287	6,511	
65	40,845	48	31	13,020	27,312	3,099	16	7	1,278	6,241	
21	2,169	48	..	306	1,175	703	273	10	9	270	
..	*8,014*	*4*	..	*1,605*	*3,422*	*150*	*13*	*4*	*10*	*3,313*	I
..	*7,675*	*3*	..	*1,605*	*3,113*	*127*	*3*	*4*	*10*	*3,313*	
..	*339*	*1*	..	..	*309*	*23*	*10*	..	..	..	
..	2,343	..	..	530	35	2	..	4	..	1,806	1
..	2,343	..	..	530	35	2	..	4	..	1,806	
..	..	..	..	..	..	..	..	..	..	..	
..	333	..	..	3	..	..	..	..	..	331	2
..	333	..	..	3	..	..	..	..	..	331	
..	..	..	..	..	..	..	..	..	..	..	
..	2,650	2	..	611	1,341	99	13	..	9	649	3
..	2,311	1	..	611	1,032	76	3	..	9	649	
..	339	1	..	..	309	23	10	..	..	..	
..	1,783	2	..	351	1,251	49	..	..	1	526	4
..	1,783	2	..	351	1,251	49	..	..	1	526	
..	..	..	..	..	..	..	..	..	..	..	
..	905	..	..	110	795	..	..	..	..	1	5
..	905	..	..	110	795	..	..	..	..	1	
..	..	..	..	..	..	..	..	..	..	..	
14	*13,116*	*62*	*14*	*3,038*	*11,431*	*621*	*6*	..	*8*	*89*	II
13	*12,220*	*22*	*14*	*2,906*	*10,668*	*574*	*3*	..	*8*	*88*	
1	*896*	*40*	..	*132*	*763*	*47*	*3*	..	..	*1*	
1	2,548	44	1	739	1,970	79	1	..	6	2	1
1	2,437	18	1	719	1,853	79	1	..	6	2	
..	111	26	..	20	117	..	..	..	..	..	
..	3,000	2	11	622	2,717	37	3	..	2	61	2
..	2,462	..	11	555	2,266	13	..	..	2	60	
..	538	2	..	67	451	24	3	..	..	1	
1	3,236	4	..	1,003	2,316	32	..	..	..	1	3
1	3,236	4	..	1,003	2,316	32	..	..	..	1	
..	..	..	..	..	..	..	..	..	..	..	
11	2,019	..		58	1,750	434	2	..	..	..	4
11	2,019	..	2	58	1,750	434	2	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	
1	1,369	12	..	472	1,218	28	..	..	..	25	5
..	1,122	..	..	427	1,023	5	..	..	..	25	
1	247	12.	..	45	195	23	..	..	..	..	
..	944	..	..	144	1,460	11	..	..	..	..	6
..	944	..	..	144	1,460	11	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	
51	*4,188*	*16*	..	*4,263*	*2,047*	*835*	*38*	..	*17*	*123*	III
51	*3,899*	*14*	..	*4,167*	*2,036*	*673*	*1*	..	*17*	*122*	
..	*289*	*2*	..	*96*	*11*	*162*	*37*	..	..	*1*	
..	1,235	1	..	2,333	1,600	159	..	..	4	3	1
..	1,235	1	..	2,333	1,600	159	..	..	4	3	
..	..	..	..	..	..	..	..	..	..	..	
51	2,953	15	..	1,930	447	676	38	..	13	120	2
51	2,664	13	..	1,834	436	514	1	..	13	119	
..	289	2	..	96	11	162	37	..	..	1	

E-IV—Distribution of Sample Households Living in Census Houses used Predominant Material

(Based on

Predominant Material

Serial No.	Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Total No. of house-holds	Grass, Leaves, Reeds or Bamboo	Timber	Mud	Unburnt Bricks	Burnt Bricks
1		2	3	4	5	6	7	8
IV.	MAHASU DISTRICT	TOTAL	*13,893*	*6*	*63*	*2,937*	*3*	*261*
		RURAL	*13,285*	*6*	*54*	*2,795*	*2*	*36*
		URBAN	*608*	..	*9*	*142*	*1*	*225*
1	Arki Tehsil	Total	1,670	..	..	1,639	2	18
		Rural	1,597	..	..	1,586	2	..
		Urban	73	..	..	53	..	18
2	Seoni Sub-Tehsil	Total	823	2	..	720	..	..
		Rural	823	2	..	720	..	..
		Urban	..	..	..	..	..	..
3	Kumharsain Sub-Tehsil	Total	904	1	12	5	..	..
		Rural	887	1	8	5	..	..
		Urban	17	..	4	..	..	..
4	Rampur Tehsil	Total	1,539	1	12	..	..	..
		Rural	1,435	1	11	..	..	..
		Urban	104	..	1	..	..	..
5	Rohru Tehsil	Total	1,664	..	19	3	..	..
		Rural	1,664	..	19	3	..	..
		Urban	..	..	..	..	..	..
6	Jubbal Tehsil	Total	610	..	4	..	..	..
		Rural	610	..	4	..	..	..
		Urban	..	..	..	..	..	..
7	Kotkhai Sub-Tehsil	Total	740	..	5	..	..	..
		Rural	740	..	5	..	..	..
		Urban	..	..	..	..	..	..
8	Theog Tehsil	Total	1,750	..	7	2	1	4
		Rural	1,674	..	3	2	..	..
		Urban	76	..	4	..	1	4
9	Kasumpti Tehsil	Total	1,342	..	1	58	..	27
		Rural	1,342	..	1	58	..	27
		Urban	..	..	..	..	..	..
10	Solon Tehsil	Total	1,553	..	..	510	..	212
		Rural	1,215	..	..	421	..	9
		Urban	338	..	..	89	..	203
11	Chaupal Tehsil	Total	1,298	2	3	..	..	..
		Rural	1,298	2	3	..	..	..
		Urban	..	..	..	..	..	..
V.	SIRMUR DISTRICT	TOTAL	*7,420*	*43*	*254*	*1,135*	*56*	*165*
		RURAL	*6,877*	*41*	*253*	*1,122*	*51*	*82*
		URBAN	*543*	*2*	*1*	*13*	*5*	*83*
1	Pachhad Tehsil	Total	1,848	3	..	43	1	..
		Rural	1,848	3	..	43	1	..
		Urban	..	..	..	..	..	..
2	Rainka Tehsil	Total	2,361	..	236	129	2	3
		Rural	2,361	..	236	129	2	3
		Urban	..	..	..	..	..	..
3	Nahan Tehsil	Total	1,104	8	1	17	..	30
		Rural	637	8	1	17	..	1
		Urban	467	..	..	..	..	29

Wholly or Partly as Dwellings by Predominant Material of Wall and of Roof—contd.

20% Sample)
of Wall

				Predominant Material of Roof							
C.I. sheets or other metal sheets	Stone	Cement concrete	All other material	Grass, leaves, Reeds, Thatch, Wood or Bamboo	Tiles, Slate, Shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement sheets	Brick and lime	Concrete and stone	All other material	Serial No.
9	10	11	12	13	14	15	16	17	18	19	
21	*10,581*	*6*	*15*	*1,741*	*8,213*	*1,703*	*120*	*10*	*1,187*	*919*	IV
1	*10,374*	*2*	*15*	*1,692*	*8,134*	*1,388*	*4*	*1*	*1,178*	*888*	
20	*207*	*4*	..	*49*	*79*	*315*	*116*	*9*	*9*	*31*	
..	8	3	..	752	314	561	2	9	20	12	1
..	8	1	..	742	313	510	..	..	20	12	
..	..	2	..	10	1	51	2	9	..	..	
..	101	..	..	181	573	57	..	..	1	11	2
..	101	..	..	181	573	57	..	..	1	11	
..	..	..	..	..	..	..	..	..	..	..	
..	871	..	15	48	737	96	..	..	4	19	3
..	858	..	15	48	735	81	..	..	4	19	
..	13	..	..	..	2	15	..	..	..	..	
1	1,523	2	..	139	1,253	43	2	..	95	7	4
1	1,422	..	..	124	1,205	13	..	..	86	7	
..	101	2	..	15	48	30	2	..	9	..	
..	1,642	..	..	16	1,634	1	..	..	1	12	5
..	1,642	..	..	16	1,634	1	..	..	1	12	
..	..	..	..	..	..	..	..	..	..	..	
..	606	..	..	49	492	13	..	..	55	1	6
..	606	..	..	49	492	13	..	..	55	1	
..	..	..	..	..	..	..	..	..	..	..	
..	735	..	..	18	695	25	..	..	..	2	7
..	735	..	..	18	695	25	..	..	..	2	
..	..	..	..	..	..	..	..	..	..	..	
20	1,716	..	..	89	1,199	62	..	1	382	17	8
..	1,669	..	..	65	1,174	35	..	1	382	17	
20	47	..	..	24	25	27	..	..	..	..	
..	1,256	..	..	63	461	314	..	..	452	52	9
..	1,256	..	..	63	461	314	..	..	452	52	
..	..	..	..	..	..	..	..	..	..	..	
..	830	1	..	136	16	516	116	..	3	766	10
..	784	1	..	136	13	324	4	..	3	735	
..	46	..	..	..	3	192	112	..	..	31	
..	1,293	..	..	250	839	15	..	..	174	20	11
..	1,293	..	..	250	839	15	..	..	174	20	
..	..	..	..	..	..	..	..	..	..	..	
..	*5,757*	*8*	*2*	*1,840*	*3,262*	*483*	*112*	*3*	*64*	*1,656*	V
..	*5,319*	*7*	*2*	*1,811*	*3,249*	*327*	*5*	*2*	*64*	*1,419*	
..	*438*	*1*	..	*29*	*13*	*156*	*107*	*1*	..	*237*	
..	1,801	..	..	40	807	83	1	1	2	914	1
..	1,801	..	..	40	807	83	1	1	2	914	
..	..	..	..	..	..	..	..	..	..	..	
..	1,989	2	..	398	1,808	59	..	..	60	36	2
..	1,989	2	..	398	1,808	59	..	..	60	36	
..	..	..	..	..	..	..	..	..	..	..	
..	1,047	1	..	211	3	186	95	2	..	607	3
..	610	..	..	204	2	45	..	1	..	385	
..	437	1	..	7	1	141	95	1	..	222	

E-IV—Distribution of Sample Households Living in Census Houses used Predominant Material

(Based on

Serial No.	Union Territory/District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Total No. of households	Predominant Material: Grass, Leaves, Reeds or Bamboo	Timber	Mud	Unburnt Bricks	Burnt Bricks
	1	2	3	4	5	6	7	8
4	Paonta Tehsil	Total	2,107	32	17	946	53	132
		Rural	2,031	30	16	933	48	78
		Urban	76	2	1	13	5	54
VI.	KINNAUR DISTRICT	TOTAL	*1,373*	*2*	*7*	*6*	..	..
		RURAL	*1,373*	*2*	*7*	*6*	..	..
		URBAN	..	..	..	..	..	..
1	Nachar Sub-Division	Total	402	1	3	6	..	..
		Rural	402	1	3	6	..	..
		Urban	..	..	..	..	..	..
2	Kalpa Sub-Division	Total	488	1	4	..	..	..
		Rural	488	1	4	..	..	..
		Urban	..	..	..	..	..	..
3	Poo Sub-Division	Total	483	..	..	..	..	..
		Rural	483	..	..	..	..	..
		Urban	..	..	..	..	..	..

Wholly or Partly as Dwellings by Predominant Material of Wall and of Roof—concld.

20% Sample)

of Wall				Predominant Material of Roof							
C.I. sheets or other metal sheets	Stone	Cement concrete	All other material	Grass, leaves, Reeds, Thatch, Wood or Bamboo	Tiles, Slate, shingle	Corrugated iron, zinc or other metal sheets	Asbestos cement Sheets	Brick and lime	Concrete and stone	All other material	Serial No.
9	10	11	12	13	14	15	16	17	18	19	
..	920	5	2	1,191	644	155	16	..	2	99	4
..	919	5	2	1,169	632	140	4	..	2	84	
..	1	..	..	22	12	15	12	..	..	15	
..	*1,358*	..	..	*839*	*112*	*10*	..	..	*1*	*411*	VI
..	*1,358*	..	..	*839*	*112*	*10*	..	..	*1*	*411*	
..	..	..	..	..	..	..	..	..	..	..	
..	392	..	..	286	15	3	..	..	..	98	1
..	392	..	..	286	15	3	..	..	..	98	
..	..	..	..	..	..	..	..	..	..	..	
..	483	..	..	72	96	6	..	..	1	313	2
..	483	..	..	72	96	6	..	..	1	313	
..	..	..	..	..	..	..	..	..	..	..	
..	483	..	..	481	1	1	..	..	..	..	3
..	483	..	..	481	1	1	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	

E-V—Sample Households Classified by Number of Members and by Number of Rooms Occupied

(Based on 20% Sample)

Union Territory/ District/Tehsil/ Sub-Tehsil/ Sub-Division	Total Rural Urban	Total number of households	Total number of members		Total number of rooms	Households with no regular room			Households with one room		
						Number of households	Number of members		Number of households	Number of members	
			Males	Females			Males	Females		Males	Females
1	2	3	4	5	6	7	8	9	10	11	12
HIMACHAL PRADESH	**Total**	**53,719**	**141,585**	**130,804**	**157,925**	**178**	**293**	**314**	**13,840**	**28,570**	**23,654**
	Rural	**50,973**	**134,373**	**125,209**	**149,750**	**178**	**293**	**314**	**13,044**	**27,163**	**22,736**
	Urban	**2,746**	**7,212**	**5,595**	**8,175**	..	..	..	**796**	**1,407**	**918**
CHAMBA DISTRICT	TOTAL	*8,517*	*21,831*	*20,015*	*19,447*	*146*	*217*	*262*	*2,843*	*6,016*	*5,371*
	RURAL	*8,175*	*20,962*	*19,355*	*18,505*	*146*	*217*	*262*	*2,732*	*5,820*	*5,228*
	URBAN	*342*	*869*	*660*	*942*	..	..	..	*111*	*196*	*143*
Chaurah Tehsil	Total	2,377	5,733	5,178	5,084	4	14	18	975	1,822	1,769
	Rural	2,377	5,733	5,178	5,084	4	14	18	975	1,822	1,769
	Urban	..	..	..	..	..	..	..	..	..	..
Pangi Sub-Tehsil	Total	334	1,214	1,091	1,256	..	..	..	50	117	83
	Rural	334	1,214	1,091	1,256	..	..	..	50	117	83
	Urban	..	..	..	..	..	..	..	..	..	..
Chamba Tehsil	Total	2,722	7,133	6,709	6,671	37	75	55	763	1,760	1,574
	Rural	2,380	6,264	6,049	5,729	37	75	55	652	1,564	1,431
	Urban	342	869	660	942	..	..	..	111	196	143
Bhattiyat Tehsil	Total	2,178	5,088	4,805	4,552	79	69	137	770	1,602	1,390
	Rural	2,178	5,088	4,805	4,552	79	69	137	770	1,602	1,390
	Urban	..	..	..	..	..	..	..	..	..	..
Brahmaur Sub-Tehsil.	Total	906	2,663	2,232	1,884	26	59	52	285	715	555
	Rural	906	2,663	2,232	1,884	26	59	52	285	715	555
	Urban	..	..	..	..	..	..	..	..	..	..
MANDI DISTRICT	TOTAL	*15,193*	*40,658*	*39,246*	*47,982*	*19*	*58*	*46*	*3,029*	*6,368*	*5,233*
	RURAL	*14,247*	*37,955*	*37,165*	*45,028*	*19*	*58*	*46*	*2,772*	*5,922*	*4,937*
	URBAN	*946*	*2,703*	*2,081*	*2,954*	..	..	..	*257*	*446*	*296*
Jogindarnagar Tehsil	Total	2,797	6,379	7,607	8,199	1	1	..	774	1,662	1,329
	Rural	2,660	6,042	7,370	7,866	1	1	..	726	1,575	1,294
	Urban	137	337	237	333	..	..	..	48	87	35
Mandi Sadar Tehsil	Total	3,442	9,857	8,935	9,336	7	23	16	910	1,852	1,749
	Rural	2,896	8,284	7,757	7,553	7	23	16	758	1,588	1,559
	Urban	546	1,573	1,178	1,783	..	..	..	152	264	190
Sarkaghat Tehsil	Total	3,352	9,814	9,128	12,585	3	14	7	292	493	408
	Rural	3,352	9,814	9,128	12,585	3	14	7	292	493	408
	Urban	..	..	..	..	..	..	..	..	..	..

E-V—Sample Households Classified by Number of Members and by Number of Rooms Occupied—contd.

(Based on 20% Sample)

Union Territory/ District/Tehsil/ Sub-Tehsil/Sub-Division	Total Rural Urban	Households with two rooms			Households with three rooms			Households with four rooms			Households with five rooms and more		
		Number of households	Number of members		Number of households	Number of members		Number of households	Number of members		Number of households	Number of members	
			Males	Females		Males	Females		Males	Females		Males	Females
1	2	13	14	15	16	17	18	19	20	21	22	23	24
HIMACHAL PRADESH	Total	15,320	36,640	34,955	8,007	23,077	20,208	7,352	19,926	19,621	9,022	33,079	32,052
	Rural	14,503	34,704	33,575	7,609	22,002	19,327	7,067	19,076	18,890	8,572	31,135	30,367
	Urban	817	1,936	1,380	398	1,075	881	285	850	731	450	1,944	1,685
CHAMBA DISTRICT	TOTAL	*2,629*	*6,412*	*6,053*	*1,594*	*4,669*	*4,019*	*670*	*1,907*	*1,963*	*635*	*2,610*	*2,347*
	RURAL	*2,525*	*6,164*	*5,933*	*1,545*	*4,555*	*3,915*	*643*	*1,816*	*1,883*	*584*	*2,390*	*2,134*
	URBAN	*104*	*248*	*120*	*49*	*114*	*104*	*27*	*91*	*80*	*51*	*220*	*213*
Chaurah Tehsil	Total	652	1,293	1,394	425	1,337	955	170	419	456	151	848	586
	Rural	652	1,293	1,394	425	1,337	955	170	419	456	151	848	586
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Pangi Sub-Tehsil	Total	78	249	201	44	165	153	62	204	216	100	479	438
	Rural	78	249	201	44	165	153	62	204	216	100	479	438
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Chamba Tehsil	Total	898	2,312	2,008	533	1,429	1,349	226	597	667	265	960	1,056
	Rural	794	2,064	1,888	484	1,315	1,245	*199*	506	587	214	740	843
	Urban	104	248	120	49	114	104	27	91	80	51	220	213
Bhattiyat Tehsil	Total	650	1,562	1,586	436	1,173	1,116	154	467	395	89	215	181
	Rural	650	1,562	1,586	436	1,173	1,116	154	467	395	89	215	181
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Brahmaur Sub-Tehsil	Total	351	996	864	156	565	446	58	220	229	30	108	86
	Rural	351	996	864	156	565	446	58	220	229	30	108	86
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
MANDI DISTRICT	TOTAL	*4,511*	*10,363*	*9,946*	*1,923*	*5,565*	*5,220*	*3,026*	*7,992*	*8,417*	*2,685*	*10,307*	*10,384*
	RURAL	*4,239*	*9,710*	*9,450*	*1,784*	*5,145*	*4,878*	*2,920*	*7,628*	*8,126*	*2,513*	*9,492*	*9,728*
	URBAN	*272*	*653*	*496*	*139*	*420*	*342*	*106*	*364*	*291*	*172*	*815*	*656*
Jogindarnagar Tehsil	Total	798	1,658	1,927	279	796	770	490	565	1,364	455	1,697	2,217
	Rural	749	1,551	1,839	260	744	720	483	535	1,343	441	1,636	2,174
	Urban	49	107	88	19	52	50	7	30	21	14	61	43
Mandi Sadar Tehsil	Total	1,098	2,803	2,572	596	1,931	1,718	377	1,246	1,205	454	2,002	1,675
	Rural	960	2,458	2,338	504	1,660	1,505	325	1,053	1,056	342	1,502	1,283
	Urban	138	345	234	92	271	213	52	193	149	112	500	392
Sarkaghat Tehsil	Total	833	1,929	1,822	270	723	664	1,189	3,530	3,208	765	3,125	3,019
	Rural	833	1,929	1,822	270	723	664	1,189	3,530	3,208	765	3,125	3,019
	Urban	..	..	..	..	..	..	..	..	..	..	..	..

E-V—Sample Households Classified by Number of Members and by Number of Rooms Occupied—contd.

(Based on 20% Sample)

Union Territory/ District/Tehsil/ Sub-Tehsil/ Sub-Division	Total Rural Urban	Total number of households	Total number of members		Total number of rooms	Households with no regular room			Households with one room		
						Number of households	Number of members		Number of households	Number of members	
			Males	Females			Males	Females		Males	Females
1	2	3	4	5	6	7	8	9	10	11	12
Chichot Tehsil	Total	2,244	6,062	5,587	6,879	..	..	..	442	1,300	835
	Rural	2,244	6,062	5,587	6,879	..	..	..	442	1,300	835
	Urban	..	..	..	..	..	..	..	..	..	..
Sundarnagar Tehsil	Total	1,743	4,704	4,305	5,349	4	11	11	386	685	602
	Rural	1,480	3,911	3,639	4,511	4	11	11	329	590	531
	Urban	263	793	666	838	..	..	..	57	95	71
Karsog Tehsil	Total	1,615	3,842	3,684	5,634	4	9	12	225	376	310
	Rural	1,615	3,842	3,684	5,634	4	9	12	225	376	310
	Urban	..	..	..	..	..	..	..	..	..	..
Bilaspur District	*Total*	*7,323*	*16,990*	*15,552*	*30,790*	*10*	*11*	*2*	*1,235*	*1,527*	*745*
	Rural	*7,016*	*16,210*	*14,922*	*29,533*	*10*	*11*	*2*	*1,186*	*1,454*	*713*
	Urban	*307*	*780*	*630*	*1,257*	..	..	..	*49*	*73*	*32*
Ghamarwin Tehsil	Total	4,099	8,334	7,992	15,832	9	9	2	811	841	355
	Rural	4,099	8,334	7,992	15,832	9	9	2	811	841	355
	Urban	..	..	..	..	..	..	..	..	..	..
Bilaspur Sadar Tehsil	Total	3,224	8,656	7,560	14,958	1	2	..	424	686	390
	Rural	2,917	7,876	6,930	13,701	1	2	..	375	613	358
	Urban	307	780	630	1,257	..	..	..	49	73	32
Mahasu District	*Total*	*13,893*	*37,481*	*32,764*	*38,831*	*3*	*7*	*4*	*3,564*	*7,264*	*5,863*
	Rural	*13,285*	*36,113*	*31,792*	*37,392*	*3*	*7*	*4*	*3,326*	*6,841*	*5,623*
	Urban	*608*	*1,368*	*972*	*1,439*	..	..	..	*238*	*423*	*240*
Arki Tehsil	Total	1,670	4,060	3,540	6,666	..	..	..	196	296	354
	Rural	1,597	3,919	3,363	6,389	..	..	..	182	274	290
	Urban	73	141	177	277	..	..	..	14	22	64
Seoni Sub-Tehsil	Total	823	2,048	1,577	2,250	..	..	..	185	303	227
	Rural	823	2,048	1,577	2,250	..	..	..	185	303	227
	Urban	..	..	..	..	..	..	..	..	..	..
Kumharsain Sub-Tehsil	Total	904	2,362	2,378	1,770	..	..	..	376	929	649
	Rural	887	2,332	2,374	1,746	..	..	..	364	912	649
	Urban	17	30	4	24	..	..	..	12	17	..

E-V—Sample Households Classified by Number of Members and by Number of Rooms Occupied—contd.

(Based on 20% Sample)

Union Territory/ District//Tehsil/ Sub-Tehsil/ Sub Division	Total Rural Urban	Households with two rooms			Households with three rooms			Households with four rooms			Households with five rooms and more		
		Number of households	Number of members		Number of households	Number of members		Number of households	Number of members		Number of households	Number of members	
			Males	Females		Males	Females		Males	Females		Males	Females
1	2	13	14	15	16	17	18	19	20	21	22	23	24
Chichot Tehsil	Total	790	1,677	1,669	290	850	769	357	1,039	1,064	365	1,196	1,250
	Rural	790	1,677	1,669	290	850	769	357	1,039	1,064	365	1,196	1,250
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Sundarnagar Tehsil	Total	492	1,195	1,058	273	752	663	309	919	896	279	1,142	1,075
	Rural	407	989	884	245	655	584	262	778	775	233	888	854
	Urban	85	206	174	28	97	79	47	141	121	46	254	221
Karsog Tehsil	Total	500	1,106	898	215	513	636	304	693	680	367	1,145	1,148
	Rural	500	1,106	898	215	513	636	304	693	680	367	1,145	1,148
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
BILASPUR DISTRICT	TOTAL	*1,248*	*2,073*	*1,680*	*836*	*1,731*	*1,599*	*1,116*	*2,350*	*2,380*	*2,878*	*9,298*	*9,146*
	RURAL	*1,158*	*1,880*	*1,562*	*801*	*1,660*	*1,541*	*1,073*	*2,253*	*2,290*	*2,788*	*8,952*	*8,814*
	URBAN	*90*	*193*	*118*	*35*	*71*	*58*	*43*	*97*	*90*	*90*	*346*	*332*
Ghamarwin Tehsil	Total	759	1,059	799	421	797	781	700	1,350	1,479	1,399	4,278	4,576
	Rural	759	1,059	799	421	797	781	700	1,350	1,479	1,399	4,278	4,576
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Bilaspur Sadar Tehsil	Total	489	1,014	881	415	934	818	416	1,000	901	1,479	5,020	4,570
	Rural	399	821	763	380	863	760	373	903	811	1,389	4,674	4,238
	Urban	90	193	118	35	71	58	43	97	90	90	346	332
MAHASU DISTRICT	TOTAL	*4,215*	*10,295*	*8,881*	*2,374*	*7,197*	*6,284*	*1,700*	*5,009*	*4,355*	*2,037*	*7,709*	*7,377*
	RURAL	*4,031*	*9,896*	*8,580*	*2,289*	*6,979*	*6,118*	*1,649*	*4,896*	*4,258*	*1,987*	*7,494*	*7,209*
	URBAN	*184*	*399*	*301*	*85*	*218*	*166*	*51*	*113*	*97*	*50*	*215*	*168*
Arki Tehsil	Total	291	519	391	201	482	430	419	935	582	563	1,828	1,783
	Rural	275	498	370	196	473	420	402	900	555	542	1,774	1,728
	Urban	16	21	21	5	9	10	17	35	27	21	54	55
Seoni Sub-Tehsil	Total	286	678	532	187	455	443	86	256	107	79	356	268
	Rural	286	678	532	187	455	443	86	256	107	79	356	268
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Kumharsain Sub-Tehsil	Total	317	602	928	129	484	452	55	202	219	27	145	130
	Rural	314	596	927	127	477	449	55	202	219	27	145	130
	Urban	3	6	1	2	7	3	..	..	..	..	..	..

E-V—Sample Households Classified by Number of Members and by Number of Rooms Occupied—contd.

(Based on 20% Sample)

Union Territory/ District/Tehsil/ Sub-Tehsil/ Sub-Division	Total Rural Urban	Total number of households	Total number of members		Total number of rooms	Households with no regular room			Households with one room		
						Number of households	Number of members		Number of households	Number of members	
			Males	Females			Males	Females		Males	Females
1	2	3	4	5	6	7	8	9	10	11	12
Rampur Tehsil	Total	1,539	4,817	4,163	4,678	..	..	..	353	778	672
	Rural	1,435	4,560	4,051	4,491	..	..	..	297	676	641
	Urban	104	257	112	187	..	..	..	56	102	31
Rohru Tehsil	Total	1,664	5,450	4,715	5,736	..	..	..	132	298	211
	Rural	1,664	5,450	4,715	5,736	..	..	..	132	298	211
	Urban	..	..	..	..	..	..	..	..	..	..
Jubbal Tehsil	Total	610	1,646	1,548	1,779	..	..	..	163	332	302
	Rural	610	1,646	1,548	1,779	..	..	..	163	332	302
	Urban	..	..	..	..	..	..	..	..	..	..
Kotkhai Sub-Tehsil	Total	740	1,927	1,872	2,064	..	..	..	203	395	360
	Rural	740	1,927	1,872	2,064	..	..	..	203	395	360
	Urban	..	..	..	..	..	..	..	..	..	..
Theog Tehsil	Total	1,750	4,189	3,748	3,632	1	3	1	732	1,329	1,057
	Rural	1,674	3,980	3,646	3,518	1	3	1	681	1,216	1,010
	Urban	76	209	102	114	..	..	..	51	113	47
Kasumpti Tehsil	Total	1,342	2,944	2,548	4,331	2	4	3	249	385	221
	Rural	1,342	2,944	2,548	4,331	2	4	3	249	385	221
	Urban	..	..	..	..	..	..	..	..	..	..
Solon Tehsil	Total	1,553	3,871	3,243	3,574	..	..	..	331	544	356
	Rural	1,215	3,140	2,666	2,737	..	..	..	226	375	258
	Urban	338	731	577	837	..	..	..	105	169	98
Chaupal Tehsil	Total	1,298	4,167	3,432	2,351	..	..	..	644	1,675	1,454
	Rural	1,298	4,167	3,432	2,351	..	..	..	644	1,675	1,454
	Urban	..	..	..	..	..	..	..	..	..	..
SIRMUR DISTRICT	TOTAL	*7,420*	*20,899*	*19,522*	*18,054*	..	..	..	*2,504*	*5,871*	*4,777*
	RURAL	*6,877*	*19,407*	*18,270*	*16,471*	..	..	..	*2,363*	*5,602*	*4,570*
	URBAN	*543*	*1,492*	*1,252*	*1,583*	..	..	..	*141*	*269*	*207*
Pachhad Tehsil	Total	1,848	4,127	3,720	5,605	..	..	..	313	478	378
	Rural	1,848	4,127	3,720	5,605	..	..	..	313	478	378
	Urban	..	..	..	..	..	..	..	..	..	..
Rainka Tehsil	Total	2,361	7,101	8,225	4,307	..	..	..	1,154	2,955	2,356
	Rural	2,361	7,101	8,225	4,307	..	..	..	1,154	2,955	2,356
	Urban	..	..	..	..	..	..	..	..	..	..

E-V—Sample Households Classified by Number of Members and by Number of Rooms Occupied—contd.

(Based on 20% Sample)

Union Territory/ District/Tehsil/ Sub-Tehsil/ Sub-Division	Total Rural Urban	Households with two rooms			Households with three rooms			Households with four rooms			Households with five rooms and more		
		Number of households	Number of members		Number of households	Number of members		Number of households	Number of members		Number of households	Number of members	
			Males	Females		Males	Females		Males	Females		Males	Females
1	2	13	14	15	16	17	18	19	20	21	22	23	24
Rampur Tehsil	Total	494	1,360	1,201	203	848	571	232	747	697	257	1,084	1,022
	Rural	460	1,286	1,149	197	827	562	227	733	688	254	1,038	1,011
	Urban	34	74	52	6	21	9	5	14	9	3	46	11
Rohru Tehsil	Total	533	1,524	1,066	468	1,477	1,411	226	822	821	305	1,329	1,206
	Rural	533	1,524	1,066	468	1,477	1,411	226	822	821	305	1,329	1,206
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Jubbal Tehsil	Total	186	456	320	115	286	294	65	184	216	81	388	416
	Rural	186	456	320	115	286	294	65	184	216	81	388	416
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Kotkhai Sub-Tehsil	Total	247	557	526	96	288	277	92	295	308	102	392	401
	Rural	247	557	526	96	288	277	92	295	308	102	392	401
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Theog Tehsil	Total	605	1,494	1,381	223	671	663	113	398	365	76	294	281
	Rural	586	1,435	1,338	222	666	660	109	387	356	75	273	281
	Urban	19	59	43	1	5	3	4	11	9	1	21	..
Kasumpti Tehsil	Total	377	669	568	256	608	493	185	477	437	273	801	826
	Rural	377	669	568	256	608	493	185	477	437	273	801	826
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Solon Tehsil	Total	461	1,041	823	358	907	757	165	459	415	238	920	892
	Rural	349	802	639	287	731	616	140	406	363	213	826	790
	Urban	112	239	184	71	176	141	25	53	52	25	94	102
Chaupal Tehsil	Total	418	1,395	1,145	138	691	493	62	234	188	36	172	152
	Rural	418	1,395	1,145	138	691	493	62	234	188	36	172	152
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
SIRMUR DISTRICT	TOTAL	*2,326*	*6,515*	*7,290*	*1,121*	*3,349*	*2,736*	*770*	*2,434*	*2,289*	*699*	*2,730*	*2,430*
	RURAL	*2,159*	*6,077*	*6,945*	*1,031*	*3,097*	*2,525*	*712*	*2,249*	*2,116*	*612*	*2,382*	*2,114*
	URBAN	*167*	*438*	*345*	*90*	*252*	*211*	*58*	*185*	*173*	*87*	*348*	*316*
Pachhad Tehsil	Total	527	1,031	894	399	892	828	326	828	795	283	898	825
	Rural	527	1,031	894	399	892	828	326	828	795	283	898	825
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Rainka Tehsil	Total	769	2,493	4,483	286	1,065	884	84	291	278	68	297	224
	Rural	769	2,493	4,483	286	1,065	884	84	291	278	68	297	224
	Urban	..	..	..	..	..	..	..	..	..	..	..	..

E-V—Sample Households Classified by Number of Members and by Number of Rooms Occupied—contd.

(Based on 20% Sample)

Union Territory/ District/Tehsil/ Sub-Tehsil/ Sub-Division	Total Rural Urban	Total number of households	Total number of members		Total number of rooms	Households with no regular room			Households with one room		
						Number of households	Number of members		Number of households	Number of members	
			Males	Females			Males	Females		Males	Females
1	2	3	4	5	6	7	8	9	10	11	12
Nahan Tehsil	Total	1,104	3,310	2,638	3,081	..	..	..	305	680	545
	Rural	637	2,002	1,542	1,700	..	..	..	193	473	378
	Urban	467	1,308	1,096	1,381	..	..		112	207	167
Paonta Tehsil	Total	2,107	6,361	4,939	5,061	..	..	..	732	1,758	1,498
	Rural	2,031	6,177	4,783	4,859	..	..	..	703	1,696	1,458
	Urban	76	184	156	202	..	..	..	29	62	40
KINNAUR DISTRICT	TOTAL	*1,373*	*3,726*	*3,705*	*2,821*	..	..	..	*665*	*1,524*	*1,665*
	RURAL	*1,373*	*3,726*	*3,705*	*2,821*	..	..	..	*665*	*1,524*	*1,665*
	URBAN	..	..	..	..	..	..	..	..	..	..
Nachar Sub-Division	Total	402	833	1,009	775	..	..	..	203	382	459
	Rural	402	833	1,009	775	..	..	..	203	382	459
	Urban	..	..	..	..	..	..	..	..	..	..
Kalpa Sub-Division	Total	488	1,533	1,503	761	..	..	..	315	867	862
	Rural	488	1,533	1,503	761	..	..	..	315	867	862
	Urban	..	..	..	..	..	..	..	..	..	..
Poo Sub-Division	Total	483	1,360	1,193	1,285	..	..	..	147	275	344
	Rural	483	1,360	1,193	1,285	..	..	..	147	275	344
	Urban	..	..	..	..	..	..	..	..	..	..

E-V—Sample Households Classified by Number of Members and by Number of Rooms Occupied—contd.

(Based on 20% Sample)

Union Territory/ District/Tehsil/ Sub-Tehsil/ Sub-Division	Total Rural Urban	Households with two rooms			Households with three rooms			Households with four rooms			Households with five rooms and more		
		Number of households	Number of members		Number of households	Number of members		Number of households	Number of members		Number of households	Number of members	
			Males	Females		Males	Females		Males	Females		Males	Females
1	2	13	14	15	16	17	18	19	20	21	22	23	24
Nahan Tehsil	Total	308	848	665	194	580	327	133	475	428	164	727	673
	Rural	158	456	353	116	356	144	83	312	269	87	405	398
	Urban	150	392	312	78	224	183	50	163	159	77	322	275
Paonta Tehsil	Total	722	2,143	1,248	242	812	697	227	840	788	184	808	708
	Rural	705	2,097	1,215	230	784	669	219	818	774	174	782	667
	Urban	17	46	33	12	28	28	8	22	14	10	26	41
KINNAUR DISTRICT	TOTAL	*391*	*977*	*1,105*	*159*	*566*	*350*	*70*	*234*	*217*	*88*	*425*	*368*
	RURAL	*391*	*977*	*1,105*	*159*	*566*	*350*	*70*	*234*	*217*	*88*	*425*	*368*
	URBAN	..	..	..	..	..	..	..	..	..	..	..	..
Nachar Sub-Division	Total	109	135	241	54	188	180	20	60	58	16	68	71
	Rural	109	135	241	54	188	180	20	60	58	16	68	71
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Kalpa Sub-Division	Total	123	412	403	29	126	113	11	46	40	10	82	85
	Rural	123	412	403	29	126	113	11	46	40	10	82	85
	Urban	..	..	..	..	..	..	..	..	..	..	..	..
Poo Sub-Division	Total	159	430	461	76	252	57	39	128	119	62	275	212
	Rural	159	430	461	76	252	57	39	128	119	62	275	212
	Urban	..	..	..	..	..	..	..	..	..	..	..	..

PART III

HOUSE TYPES AND VILLAGES

Photographs, Drawings, Sketches, Extracts and Reprints

HOUSE TYPES

Photographs of different types of houses have been collected. Sketches, line drawings including ground plans and elevations of some typical rural houses have been prepared. They give an idea about the pattern of houses, the building materials used and the uses to which the different rooms in a house are put to. A few photographs of temples and old palaces of princes are also given. These will be of interest.

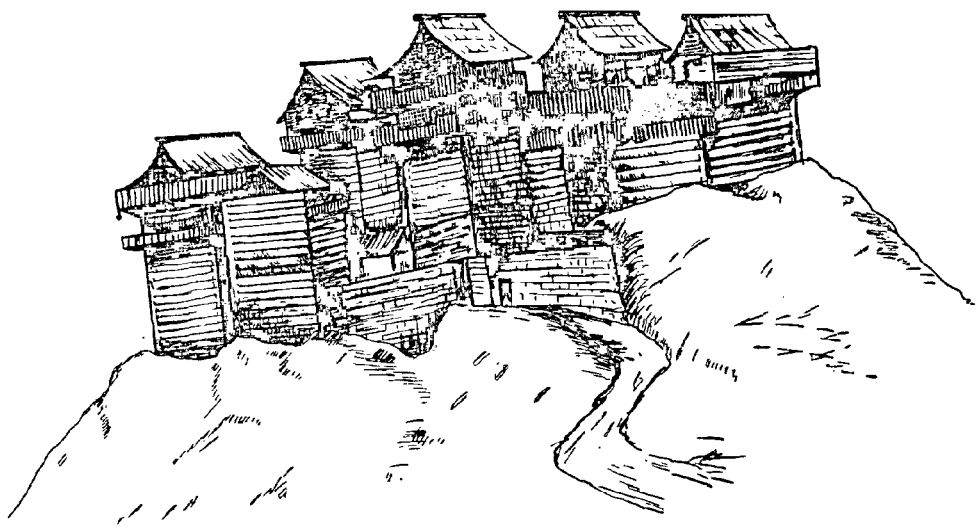
SETTLEMENT PATTERN OF VILLAGE

Settlement or residential pattern of villages and panoramic or distant views of some villages are provided. The villages are mostly clusters of houses. There are a few pictures of towns also.

DESCRIPTION OF HOUSE TYPES AND RESIDENTIAL PATTERN

This report on housing and establishments is the first of its kind. There is varied information on houses and on villages in travelogues and in the old gazetteers. Extracts from these, with due courtesy and acknowledgments to authors, publishers and printers, have been printed. The readers will find them of interest.

Socio-economic survey of selected villages, more or less one village in each tehsil in Himachal Pradesh, has been a part of the 1961 Census programme. Among other studies in this survey, notes were collected on house types and residential pattern of villages. A number of these notes are being reproduced in this report, and they give the latest account on the subject of house types and residential pattern.



OLD PALACE OF JUBBAL:

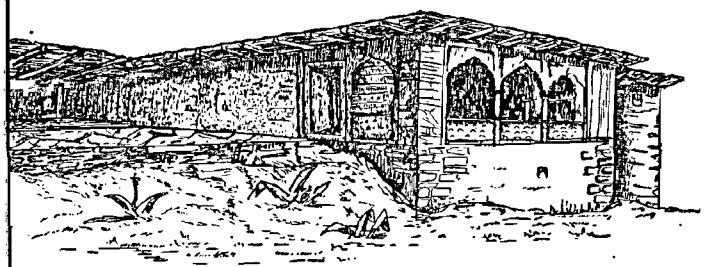
Courtesy: JACQUEMONT—Letters from INDIA

Rural House Types—Line Drawings including Ground Plans and Elevations—Chamba District

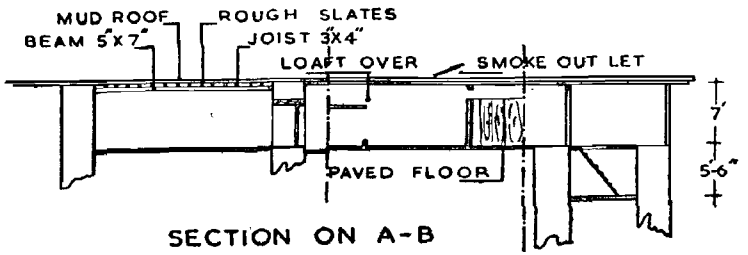
Serial No.	Tehsil/Sub-Tehsil	Village (Hadbast No.)	Owner of house/caste	Main building material used in construction of house	Availability of material	Year of construction declared by owner	Approximate cost when constructed (according to owner)	Rooms and their uses
1	2	3	4	5	6	7	8	9
							Rs.	
1	Chaurah Tehsil	Dovi Kothi (H.B. No. 383)	Pars Ram (Rajput)	1. Wall—R. R. stone masonry in mud 2. Roof—Rammed earth	Main material available locally	1930	1,000·00	One grass store, one cattle shed, one cattle recess-cum-living room, and living room in basement
2	Pangi Sub-Tehsil	Thamoh-Karoti (H. B. No. 34)	Suji Ram (Rajput)	1. Wall—R.R. stone masonry in mud 2. Roof—Rammed earth	Main material available locally	Not known to the present owner	Not known to the present owner	1. Ground floor—One living room with a recess for cattle (winter arrangements) and one store 2. First floor—One room used as hay store in winter and as a living room in summer
3	Chamba Tehsil	1. Chitrari (H.B. No. 117)	Mehtoo (Brahmin)	1. Wall—R. R. stone masonry 2. Roof—Slates	Main material available locally	1954	6,000·00	1. Ground floor—Cattle shed 2. First and second floors—Living rooms
		2. Jidera (H.B. No. 244)	Musa Gujjar (Muslim)	1. Wall—R. R. stone masonry in mud, and logs 2. Roof—Logs, rough planks, and rammed earth	Main material available locally	1950	500·00	One cattle shed and one living room including store and kitchen
4	Bhattiyat Tehsil	Hatli (H.B. No. 345)	Sohan Singh (Rajput)	1. Wall—Sun dried bricks 2. Roof—Slates	Slates from Dharamshala (Punjab) other material available locally	1930	4,000·00	1. Ground floor—One kitchen, one store and one living room 2. First floor—Living rooms
5	Brahmaur Sub-Tehsil	Brahmaur (H.B. No. 97)	Hama Ram (Rajput)	1. Wall—R. R. stone masonry in mud with wooden frames 2. Roof—Slates	Main material available locally	1910	1,000·00	1. Ground floor—Cattle shed 2. First and second floors—Living rooms

HOUSE OF PARS RAM VILLAGE DEVI KOTHI TEHSIL CHAURAH

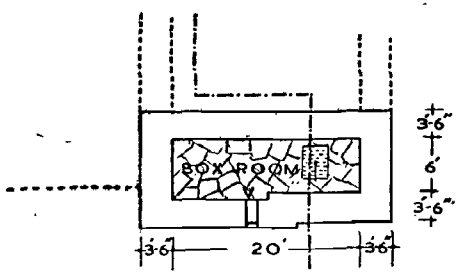
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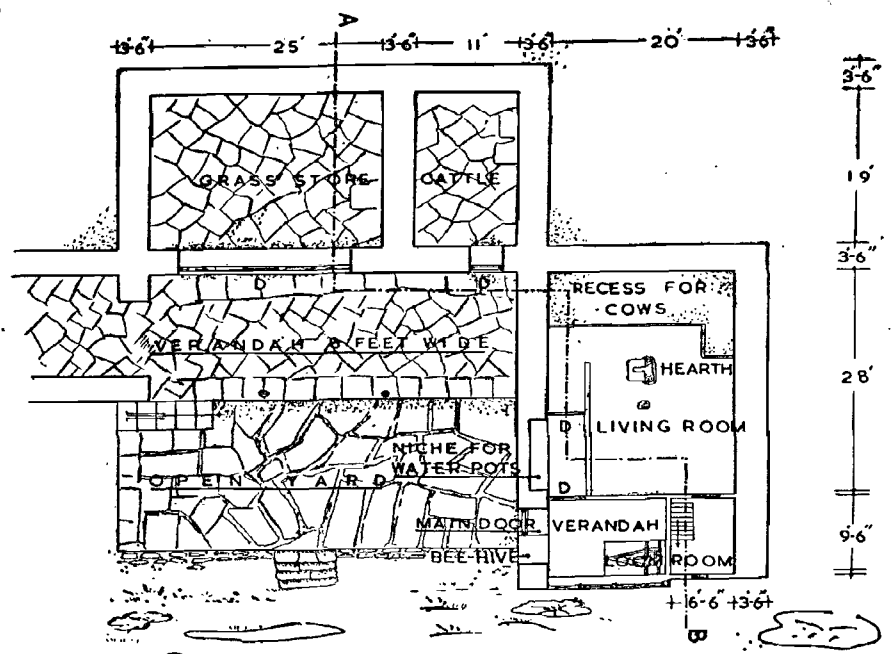
PERSPECTIVE VIEW



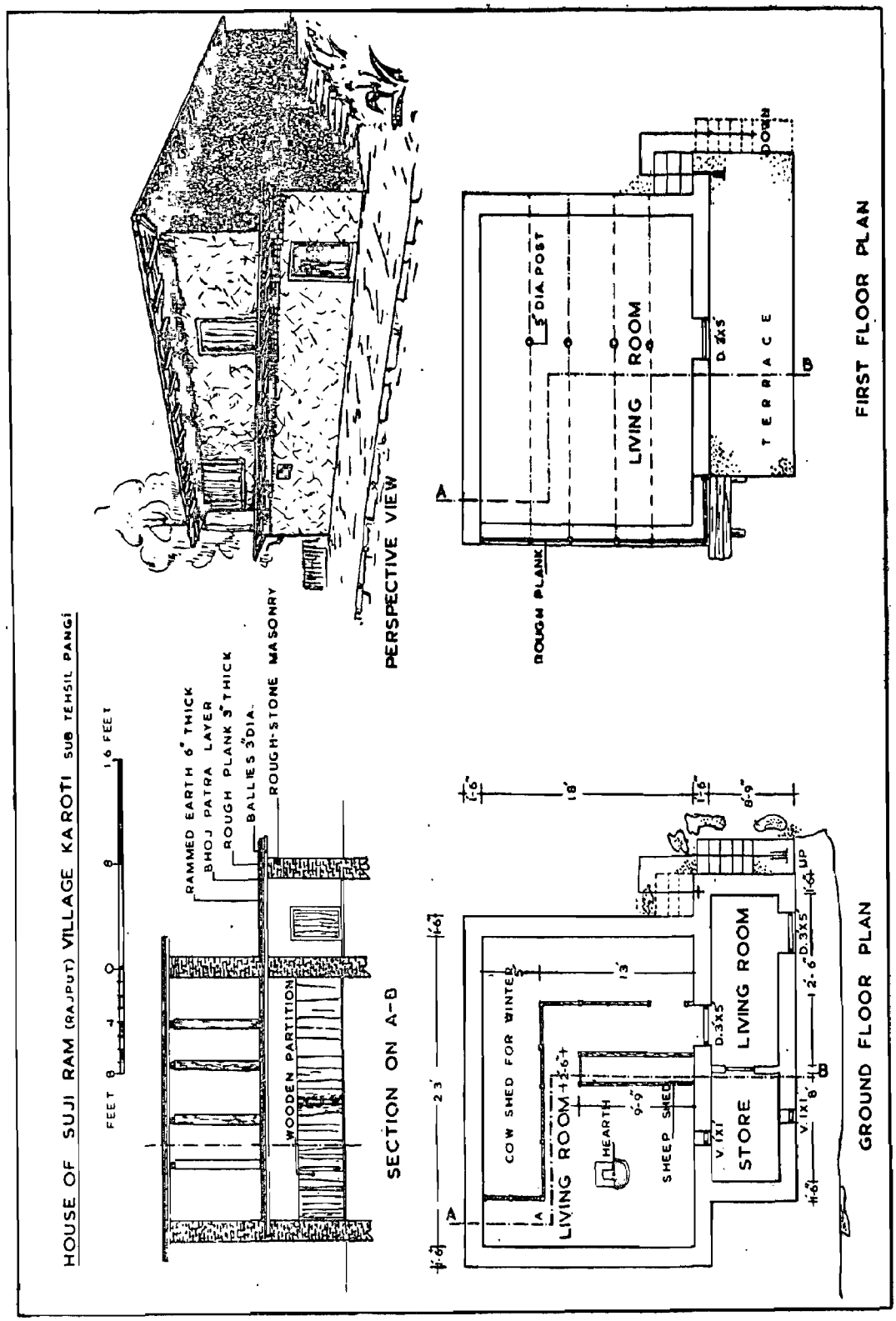
SECTION ON A-B



BASEMENT PLAN



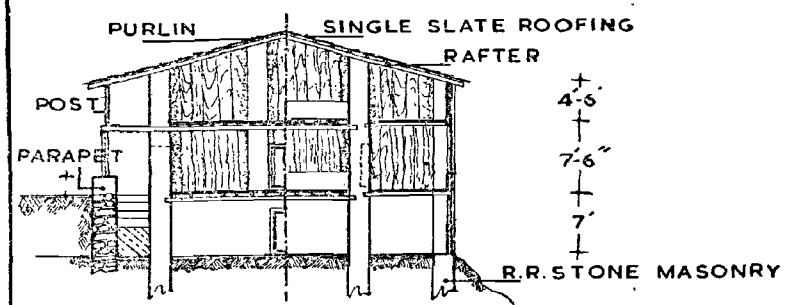
GROUND FLOOR PLAN


HOUSE OF SUJI RAM (RAJPUT) VILLAGE KAROTI SUB TEHSIL PANGI
FEET 0 4 8 16 FEET
RAMMED EARTH 6" THICK
BHOJ PATRA LAYER
ROUGH PLANK 3" THICK
BALLIES 3" DIA.
ROUGH-STONE MASONRY
WOODEN PARTITION
SECTION ON A-B
PERSPECTIVE VIEW
ROUGH PLANK
5" DIA POST
LIVING ROOM
TERRACE
D 2X5
DOOR
FIRST FLOOR PLAN
COW SHED FOR WINTER
LIVING ROOM
HEARTH
SHEEP SHED
STORE
LIVING ROOM
D.3X5
V 1X1'
GROUND FLOOR PLAN

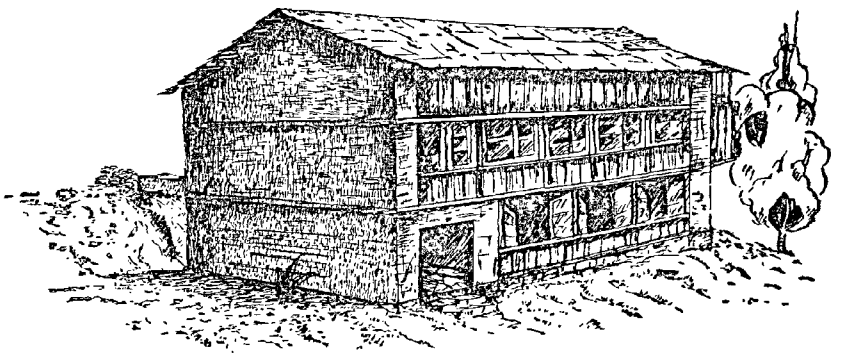
L/B(N)14SCO(HP)

HOUSE OF MEHTOO, CHITRARI VILLAGE

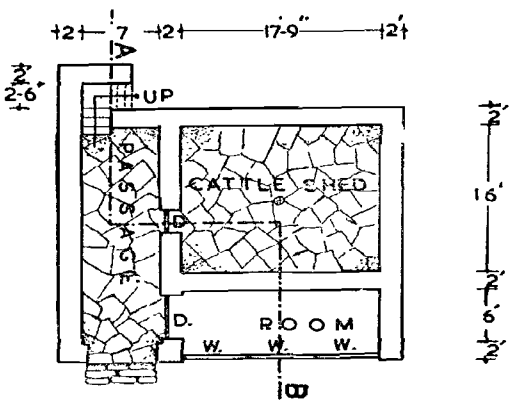
FEET 16 8 0 16 32 FEET



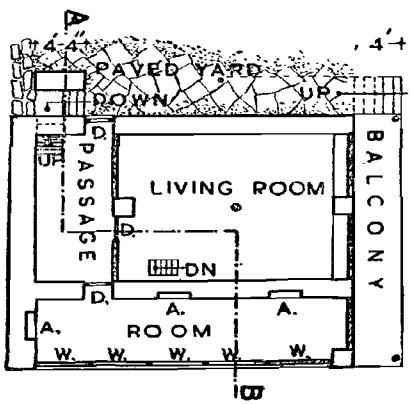
SECTION ON A-B



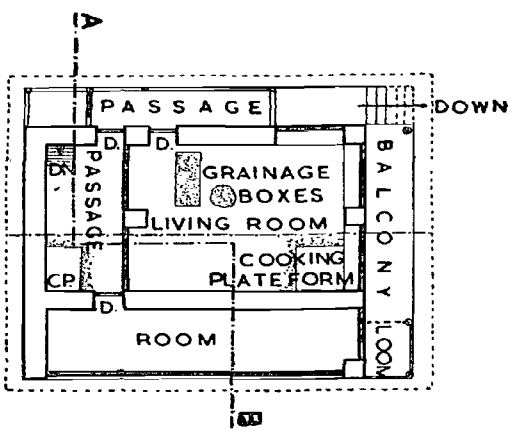
PERSPECTIVE VIEW



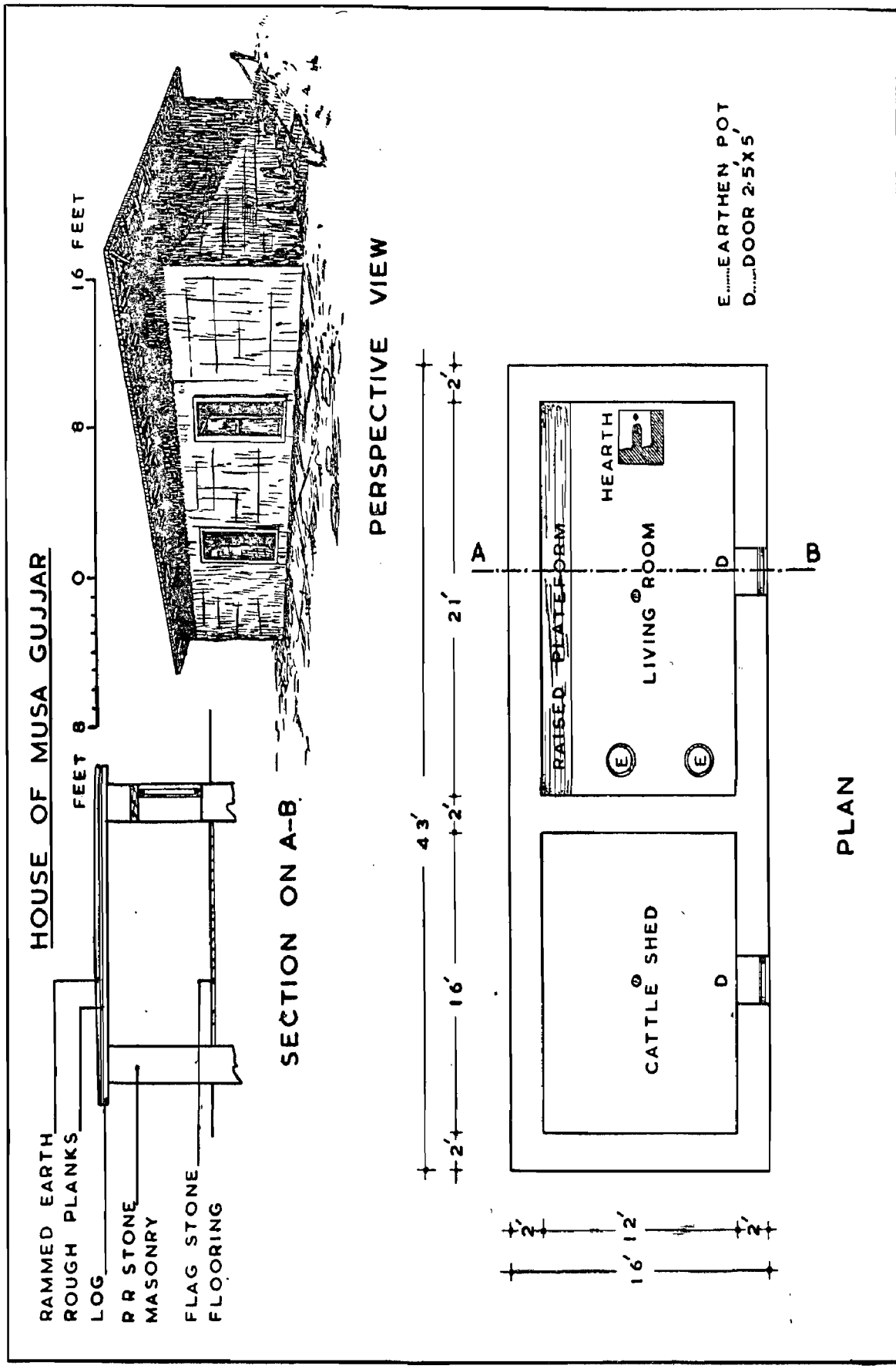
GROUND FLOOR PLAN

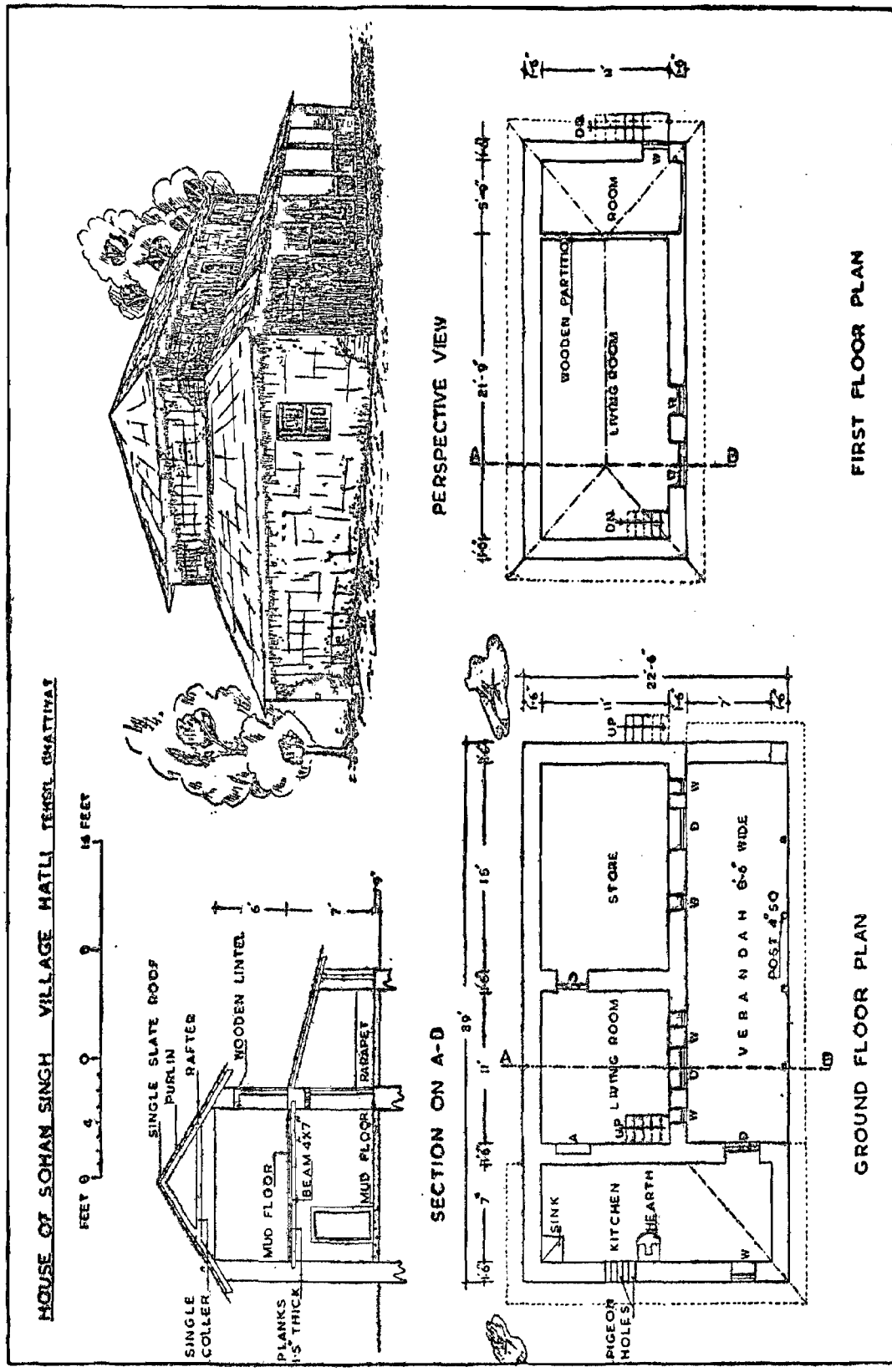


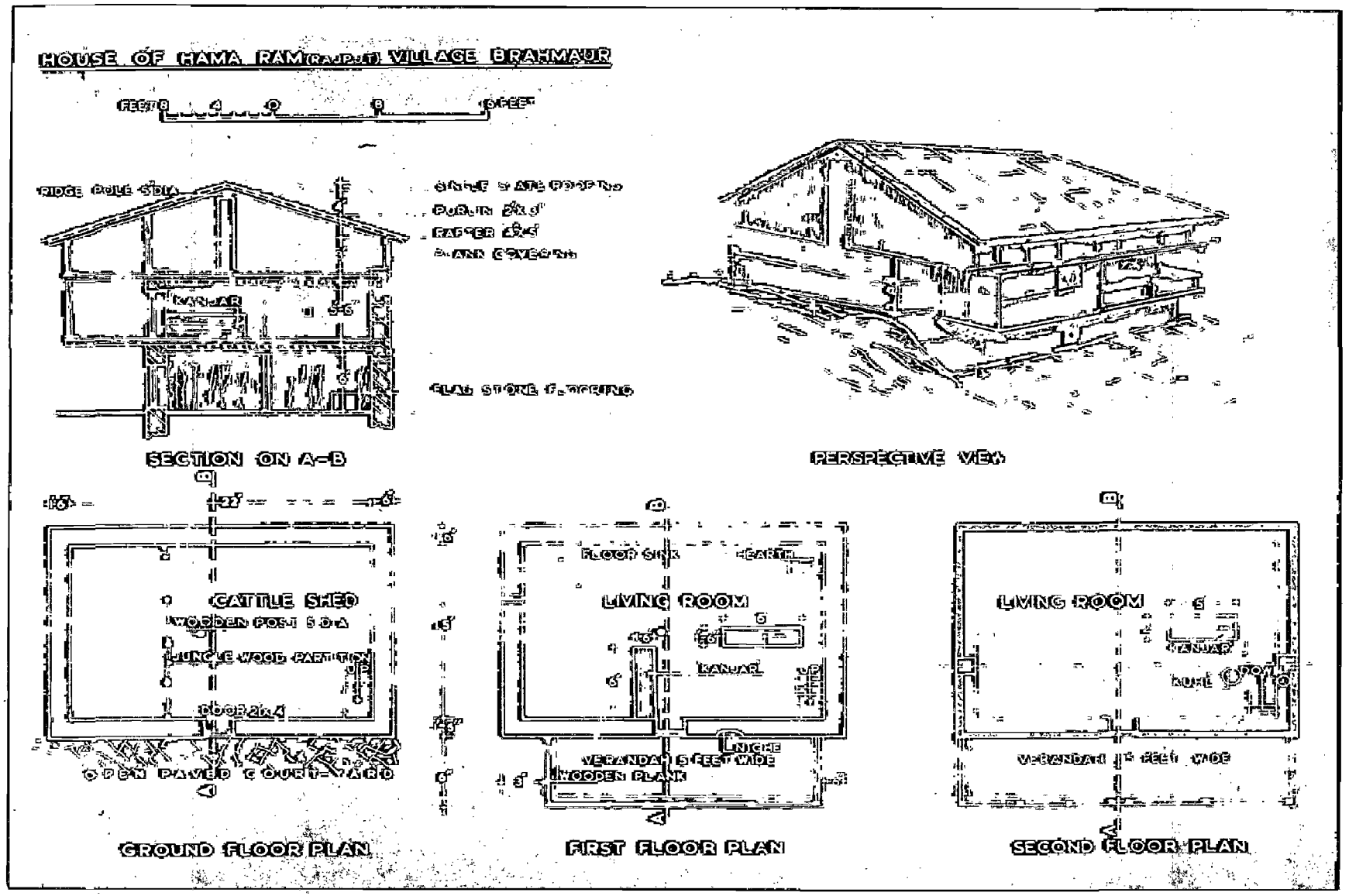
FIRST FLOOR PLAN

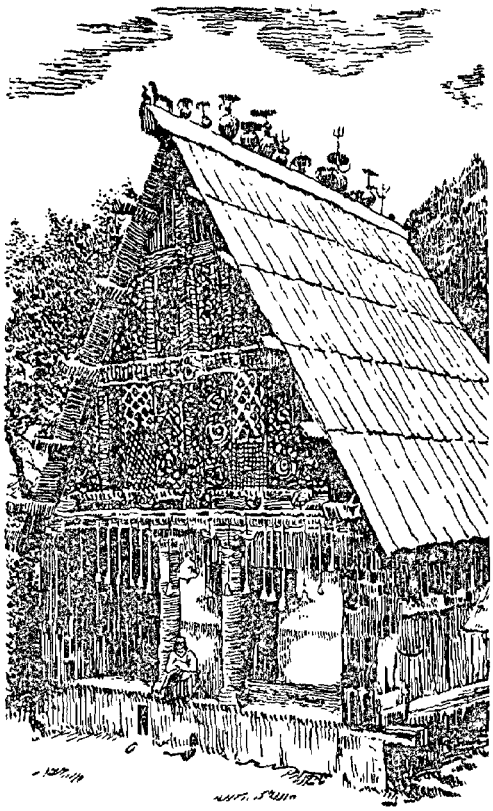


SECOND FLOOR PLAN

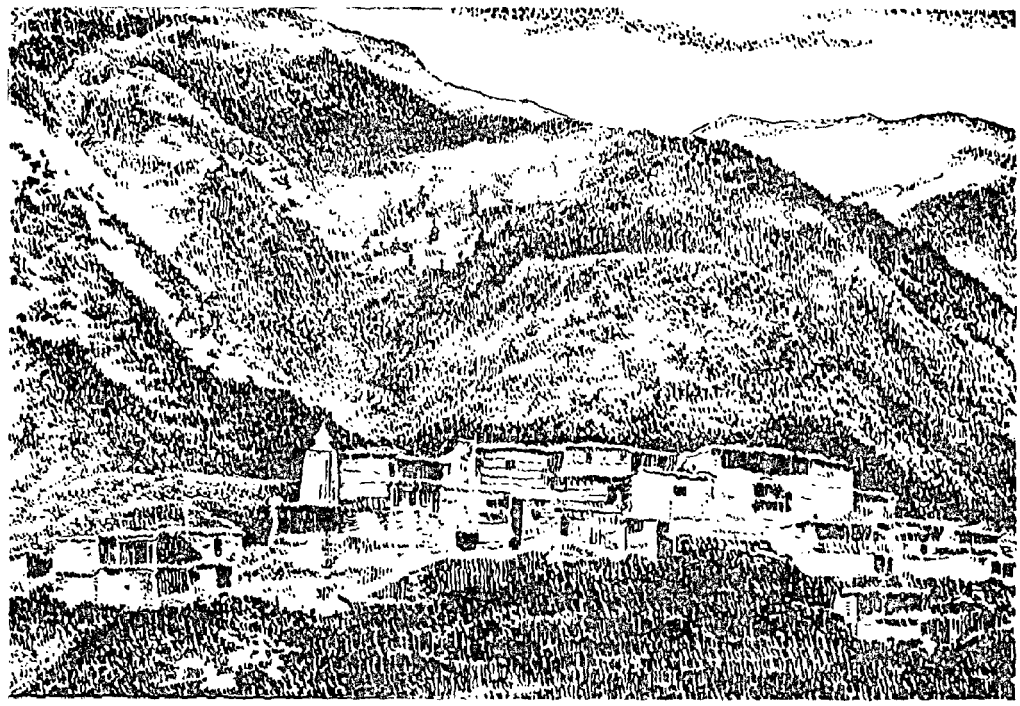

HOUSE OF MUSA GUJJAR
FEET 8 0 8 16 FEET
RAMMED EARTH
ROUGH PLANKS
LOG
R R STONE MASONRY
FLAG STONE FLOORING
SECTION ON A-B
PERSPECTIVE VIEW
E.....EARTHEN POT
D.....DOOR 2·5'X5'
A
B
43'
2'
16'
21'
RAISED PLATFORM
HEARTH
LIVING ROOM
CATTLE SHED
D
E
16' 12'
PLAN


HOUSE OF SOHAN SINGH VILLAGE HATLI TEHSIL CHATTIAR
FEET 0 4 8 16 FEET
SINGLE SLATE ROOF
PURLIN
RAFTER
WOODEN LINTEL
SINGLE COLLER
PLANKS 1½" THICK
BEAM 4X7"
MUD FLOOR
MUD FLOOR
PARAPET
SECTION ON A-B
PERSPECTIVE VIEW
WOODEN PARTITION
LIVING ROOM
ROOM
DN
UP
FIRST FLOOR PLAN
STORE
UP LIVING ROOM
VERANDAH 6'-6" WIDE
POST 4"50
SINK
KITCHEN
HEARTH
PIGEON HOLES
GROUND FLOOR PLAN


HOUSE OF HAMA RAM (RAJPUT) VILLAGE BRAHMAUR
FEET 0 4 8 FEET
RIDGE POLE 5"DIA
SLATE STONE ROOFING
PURLIN 2"x3"
RAFTER 2"x3"
MAN COVERING
KANJAR
FLAG STONE FLOORING
SECTION ON A-B
PERSPECTIVE VIEW
CATTLE SHED
WOODEN POST 5"DIA
JUNGLE WOOD PARTITION
DOOR 2"x4"
OPEN PAVED COURT-YARD
GROUND FLOOR PLAN
FLOOR SINK
CHARPAI
LIVING ROOM
KANJAR
NICHE
VERANDAH 5 FEET WIDE
WOODEN PLANK
FIRST FLOOR PLAN
LIVING ROOM
KANJAR
HOLE FOR DOVE
VERANDAH 5 FEET WIDE
SECOND FLOOR PLAN



Mindhal Temple



Triloknath Courtesy Antiquities of Chamba

CHAMBA DISTRICT

Extracts and Reprints

GAZETTEER OF CHAMBA STATE, 1904, PAGES 41—48, 118—120, 208.

History: Chamba, selected by its snow-clad mountain barriers, has had the rare fortune of escaping the successive waves of Moslim invasions which, in the Plains of the Punjab, have swept away all monuments of old Indian civilisation. The result is that in this petty Hill State ancient remains are more abundant and better preserved than in any other part of the Province. In Kashmir the proud temples of Lalitaditya and his successors were ruthlessly destroyed by Sikandar Butshikan; in that centre of Sanskrit learning only a few poor fragments of inscriptions have come to light. In Chamba the brazen idols of Meru-varman, nearly contemporaneous with the temple of Martand, still stand in their ancient shrines of carved cedar wood. Copper-plate grants issued by the early rulers of Chamba, whose names figure in the *Rajatarangini*, are still preserved by the descendants of the original donees, who enjoy the granted lands up to the present day. Chamba, the oldest of the very few Hill States which have survived the turbulent days of Sikh ascendency, is not only a store-house of antiquities, but is in itself a relic of the past, invaluable to the student of India's ancient history.

The ancient remains of Chamba first drew the attention of the pioneer of Indian Archaeology—Sir Alexander Cunningham. His visit, however, was too short to do full justice to the subject. In two notes inserted in his Archaeological Reports he gives an account of the principal temples in Chamba Town, and in the ancient capital, Brahmaur. He notices particularly the inscriptions of Meru-varman in Brahmaur and Chhatrarhi, and treats briefly of three copper-plate grants and one stone inscription found in the town. The oldest and most important of these three plates was subsequently edited and fully discussed by Professor Kielhorn of the Goettingen University.

The whole wealth of antiquarian, especially epigraphical material has, however, only come to light during the last five years. Prolonged tours through the different parts of Chamba. including the Chandrabhaga Valley, have enabled me to inspect the many ancient temples and to collect some hundred and fifty inscriptions ranging from the 6th to the 17th centuries. These will be made the subject of a separate publication of the Archaeological Survey of India.

Monuments: The numerous ancient temples of Chamba State are of two distinct types which may conveniently be designated as Hill temple and Plains' temple. The latter entirely built of stone and usually decorated with carvings, is the well-known Hindu temple of the Plains its conical spire (*shikhara*), from which it is technically denoted as *shikhara* or spired temple. For a description of this type I may refer to Fergusson's standard work on Indian Architecture. The temples in Chamba Town belong all to this type with the exception of that of Chamunda. They consist of a single cella in which the image is placed, and have no ante-room (*mandapa*) as, for instance, is found in the Baijnath Temple, in the Kangra District. They are entered through an ornamental porch usually supported by two pillars. A peculiar feature of the *shikhara* temples, in Chamba and other hill tracts, is the umbrella-shaped covering of wood or zinc placed over and around the *amalaka* stone which forms the top of the spire. This awkward excrescenee serves the useful purpose of protecting the building against heavy snow-fall, and would alone suffice to show that the *shikhara* temple originated in the Plains, and was introduced in the Hills at a comparatively late date. This we may also conclude from the circumstance that the Vishnu temples all belong to this type, whilst the shrines dedicated to a Devi or Naga are all Hill temples. For there is reason to assume that the Devi and Naga worship represents the original cult of the Hills, whereas Vishnuism was introduced in the 10th century.

Temples at Chamba: The chief temple of Chamba, that of Lakshmi-Narayan, with its

image of white marble, was founded at that time; but it is impossible to decide how far the present building represents the original shrine. We know at least of one restoration by Raja Partap Singh. Two copper-plate inscriptions issued by this ruler, in A.D. 1582, mention that the temple was consecrated, whence we may infer that the restoration amounted to a complete renovation of the building. One plate mentions also the Chandragupta Temple which belongs to the same group. It is a *linga* shrine, likewise ascribed to Sahilla, the founder of Chamba. Between these two temples there is a modern temple dedicated to Radha-Krishna by Sadha, the Rani of Raja Jit Singh. According to an inscription in the vernacular it was consecrated in the Vikrama year 1882, *i.e.*, A.D. 1825. The three remaining temples of this group are that of Gauri-Shankar containing a well-modelled brass image of Shiva and his spouse, the Trimukh *linga* temple and that of Lakshmi-Damodar. Consequently three out of these six temples are dedicated to Vishnu and three to Shiva.

There are two more Vishnu temples of the *shikhara* type in Chamba Town. Earliest in date is that of Hari Rai, profusely decorated with carvings, but unfortunately crammed between the clumsy Chaugan Gate and an unsightly goods-shed. Its foundation by Salakaravarman is mentioned in a copper-plate inscription of the 11th century.

The other temple, that of Bensi Goupal, in the vicinity of the Palace, is of a much later date. In a copper-plate of Raja Balabhadra, of A.D. 1595, mention is made of the consecration of a temple of Gopal, which presumably is the one in question, as no other temple of this name is known to exist in the town.

Finally, we must note two *shikhara* temples dedicated to Devi. That of Vajreshvari or Bhagavati outside the town is remarkable for its fine sculptures. The short inscriptions under the niches seem merely to contain the names of the artisans employed in the construction of the building, but give no certain clue to its date. The temple of Champavati on the north side of the Chaugan contains a stone image of Durga slaying the Buffalo-demon. In the court-yard of this temple we note a dilapidated shrine of small size which shelters the images of Vasuki Naga (or Baski Nag) and his *wazir*. Originally the Naga king had a more spacious residence, which was destroyed by fire in the year 1898. Since then he has found a refuge with the Devi.

Temples at Brahmaur: The *shikhara* temples beyond those in the town are very few in number. At Brahmaur, the ancient capital, there are two buildings of this type. The larger of the two is dedicated to Shiva under the name of Mani-mahes. It is ascribed to Meruvarmân, who reigned about A.D. 700, but it is very doubtful whether the present building goes back to so remote a time. This much is certain, that the erection of a Shiva temple by Meru-varman is recorded in an inscription on the brass bull which stands in front of the temple.

The other *shikhara* temple of Brahmaur, smaller in size and plainer in appearance, contains a brass image of Narsingh, the Man-lion incarnation of Vishnu. Its erection by Rani Tribhuvanarekha is mentioned in a copper-plate inscription of Yugakara, the son of Sahilla, and may, therefore, be placed in the 10th or 11th century. The Narsingh Temple suffered considerable damage in the earthquake of the 4th April, 1905.

Temple at Saho: A stone temple of a peculiar type is that of Chandrashekh (Sanskrit *Chandra-shekhara*) the Moon-crowned Shiva, at Saho, it is surmounted by a sloping slate roof, evidently of modern date. The two remarkable figures, however, on both sides of the entrance bear out that the body of the building is ancient. We shall see in the sequel that an early Sharda inscription, discovered at the adjoining village of Sarahan, presumably records the foundation of the Saho temple.

Temple at Udaipur: The small *shikhara* temple at Udaipur, 3 miles below Chamba, is a specimen of a very late type, as it was erected after the death of Raja Udai Singh, which occurred in A.D. 1729. It contains three small-size images of white marble. The central one represents Narayana, the other two Raja Udai Singh and his brother Lachman Singh, who were murdered near the spot where the temple stands. Besides, there is a slab with the effigies of the Raja, and his four Ranis and eighteen maid-servants who became *sati* after his demise. This slab corresponds with the so-called *sati* pillars of Mandi and Kullu. It is the only instance of its kind met with in Chamba.

There are, however, scattered all over the State, stones, with one or two rudely-carved figures. These are known as *autar* stones (*autar* from Sanskrit *aputra* meaning "sonless"), and were erected by the relatives of a man who had died without leaving male descendants to perform the *shraddha*. The circumstance that Raja Udai Singh died sonless led to the founding of the Udaipur temple, and the slab it contains evidently serves the purpose of an *autar* stone.

Triloknath Temple: In the Chandrabhaga Valley only one temple of the *shikhara* type is found. It is the famous sanctuary of Triloknath "the lord of the three worlds," which is another name for Avalokiteshvara, the popular Boodhisattva. It is probably, with the Bodhi temple at Gaya, the only Buddhist shrine in India which has remained Buddhist up to the present day. It contains a six-armed image of white marble. One right hand is in the gift-bestowing attitude, one of the left hands holds a lotus, the typical attribute of this Bodhisattva; on his head he wears the effigy of his spiritual father, the Buddha of Boundless Light, Amitabha. The officiating priest is a lama appointed by the Rana of Triloknath who, though professing the Hindu religion, acts as the manager of the temple. Triloknath is, indeed, equally worshipped by the Buddhists of Lahul, Ladakh and Zangskar, and by the Hindus of the neighbouring hill tracts. It is of special interest to note that the Triloknath Temple has a purely Indian type and must, therefore, be regarded as a monument of Indian Buddhism. It is curious that it is still known by the name of Bihar, a derivation of Sanskrit Vihara.

The body of the temple is built of stone, the spire of *shikhara* of small partly-moulded bricks. The porch, supported by two graceful pillars with fluted shafts, is profusely adorned with carvings. Unfortunately the appearance of the edifice has been completely spoiled owing to its having been encased in a clumsy, shed-like structure, which forms an ante-room in front, and at the same time provides a procession-path round the temple. The whole has more-over been thickly white-washed so as to conceal the traces of decay. Engaged in the modern outer wall are two miniature *shikhara* temples in which a number of wooden masks are preserved. At the death of a member of the Rana's family such a mask is prepared and placed in the temple, from whence it is on no account to be removed. An exception is made for 3 masks which are used at the *Char* or Spring festival, and are said to represent a man a woman and a demon, called in the local dialect *gami, mazmi* and *kulinza*. The main substance of *Char* festival is a performance symbolising the advent of Spring and the defeat of Winter. The latter, personified as an evil demon, is represented by the bearer of the *kulinza* mask, who is chased by the joint villagers and pelted with snow balls till he retires from the village and drops his mask, after which he joins in a dance with the *gami* and *mezmi* mask-bearers. There is evidently no connection whatever between this festival and the cult of Avalokiteshvara. The annual fair in honour of this deity, which takes place on the last of Sawan, is likewise attended with ancient rites and sacrifices of an aboriginal type, which strangely contrast with the character of the Great Compassionate of Buddhism.

Hill Temples: The number of *shikhara* temples in Chamba State, leaving aside the miniature one does not exceed fourteen (ten of which are found in the town), but it would be difficult to count those of the Hill type, which are scattered everywhere along the mountain slopes and in the valleys. Their construction is extremely simple. They consist of a small cella, usually raised on a square plinth and built of layers of rubble masonry alternating with beams of cedar wood. This is surmounted by a sloping roof of slates or wooden shingles supported by wooden posts, which form a verandah or procession-path round the shrine. Of the high pagoda-like roof met with in Kashmir, Kulu and Nepal no instances are found in Chamba. It is possible that some temples, *e.g.*, that at Chhatrarhi, originally had a roof of this kind. Owing to climatic conditions the roofs of these buildings have often to be renewed. It must, however, be admitted that they are well calculated to shelter the shrine against the heavy rain and snowfall peculiar to the hills. Though simple in their architecture, some of these Hill temples are of great interest owing to the elaborate decoration of their facades, ceilings and pillars.

Oldest Devi Temples: Chamba can boast of three such temples adorned with the finest wood-carving found in the Alpine Panjab.

They are the temples of Lakshana, at Brahmaur; that of Shakti, at Chhatrarhi; and that of Kali, at Mirkula or Udaipur in Lahul. It will be noticed that these three are all dedicated to Devi. The Brahmaur and Chhatrarhi temples can be approximately dated; for they contain brass images with inscriptions which record their erection by Meru-varman, and on account of their character may be assigned to about A.D. 700. I have little doubt that the images are contemporaneous with the temples in which they are enshrined. It should be remembered that the timber used for these buildings is the wood of the Himalayan cedar or deodar (Cedrus deodara) which, if well seasoned, is one of the most durable timbers existing. The carvings which are exposed to the weather, *e.g.*, those on the facade of the Lakshana Temple, are now much decayed, but wherever sheltered they exhibit an excellent state of preservation. This point is especially conspicuous in the carved capitals of the Shakti Temple.

Lakshana Temple at Brahmaur: The plan of the Lakshana Temple differs from that described above, in that in front of the shrine we find an ante-room, the two being enclosed within a solid wall of rubble and wood masonry which has replaced the verandah. The facade of this building is of particular interest, as in the style of its decoration it exhibits a close affinity to the architecture of Kashmir and Gandhara, and, indeed, shows traces of classical influence peculiar to the monuments of the North-West. Under the ridge-beam of the roof we notice first of all the triangular pediment with the trifoiled arch, a characteristic feature of the Kashmir temples. The seated figure in the arch is not Kali, as supposed by Cunningham, but Surya the sun-god, as is evident from the position of the legs. His twelve arms, holding various attributes, are presumably indicative of the twelve months of the year. The seven crouching figures along the basis of the triangle probably represent the seven days of the week.

Here, as well as on the architraves between the pediment, and the doorway, we find an arrangement frequent in the Graeco-Buddhist art of Gandhara; rows of figures in arched niches, separated by dwarf plasters. In the lowermost row the figures are amatory couples which can be traced back to Graeco-Buddhist examples. We notice also a row of supporting, crouching figures frequently met with in Gandhara sculpture and corresponding to the Atlantes of classical art.

The ornamentation on the lintels and jambs of the doorway is of a purely Indian type. Over the entrance we find a double row of garland-carrying flying figures presumably meant for Gandharavas. In the upper row each of these figures is accompanied by a female figure seated on its hip. Along the jambs standing figures are placed which are difficult to identify owing to their decayed state. On both sides of the threshold the river goddesses Ganga and Yamuna (*i.e.*, the Ganges and Jamna) are still recognisable, each holding a water-vessel and a lotus-stalk, and standing on their vehicles the crocodile (*makara*) and the tortoise. Finally, I wish to draw attention to the winged dragons rampant which adorn the upper corners of the doorway.

Shakti Temple at Chhatrarhi: The temple of Shakti Devi at Chhatrarhi which, as we saw, belongs to the same period as that of Lakshana, is a good specimen of the Hill shrine described above. The outer doorway, however, is evidently a later addition, and the coarse frescoes on the walls of the cella are of quite recent date. The ornamentation of the inner doorway is very similar to that the Lakshana Temple. Here also we find, over the entrance, a figures—four on each side—the two in the centre carrying a crown, whereas the remaining six are accompanied by female figures each seated on the hip of its companion. Beneath these there is a row of thirteen cross-legged figures of which nine represent the *Navagrahas, i.e.*, the Sun, the Moon, the five planets—Mars, Mercury, Jupiter, Venus and Saturn—the eclipse—demon Rahu and the comet Ketu. Rahu is represented by a demon's head without a body, in agreement with the myth told in the Puranas. It is said that Rahu stealthily partook of the nectar (*amrita*) produced by the churning of the ocean, but was betrayed by the Sun and the Moon, who had noticed the theft. He was beheaded by Vishnu, but the head had become immortal by the use of the nectar. Since then the Rahu's head persecutes the Sun and the Moon and causes them to eclipse. The four remaining figures at the two ends possibly represent the Guardians of the Four Regions (Lokapalas).

Along the door-jambs we find a double row of standing figures on each side of the entrance.

Those of the two outer rows alternate with crouching animal-headed figurines, which act as Atlantes, and presumably are meant either for Rakshasas or for the Ganas of Shiva. Among the standing figures we notice to the right the six-faced Karttikeya with his peacock and Indra the rain-god holding a thunderbolt (*vajra*) and accompanied by his vehicle the elephant (Airavata); and to the left the four-armed Brahma carrying a rosary and a waterpot and accompanied by a pair of geese. The inner rows consist each of four figures. On the left side we recognise Vishnu three-faced, the side faces being a lion's and a boar's; and Durga slaying the Buffalo-demon (Mahishasura). The two lowermost figures are again Ganga and Yamuna, the personifications of the sacred rivers of India. In the upper corners of the door-way we notice the same winged dragons as are found on the Lakshana Temple.

The wooden pillars, with their pot-and-foliage capitals, supporting elaborately carved bracket-capitals in which couchant bulls and other animals have been introduced, deserve special notice.

Mirkula Temple in Lahul: The temple of Kali, commonly called Mirkula Devi from the name of the village where it is found, is of unknown age. The image of the goddess, a small brass idol of inferior workmanship, is inscribed with a Takari inscription, which shows it to belong to a late period, perhaps the 13th or 14th century. But I have little doubt that the temple in which it is enshrined is earlier than the image. The popular tradition that the Mirkula temple and that of Hidimba at Manali in Kulu were wrought by the same artisan deserves no credit. The Manali temple with its profuse but crude wood-carvings was built by order of Bahadur Singh of Kulu in A.D. 1559. The temple of Mirkula Devi must be centuries older. On the other hand it can not be denied that its decoration does not reach the excellence of that on the Lakshana and Shakti temples. It evidently belongs to some intermediate period, perhaps the 10th or 11th century. The wood-carving of the Panjab Hills exhibits, perhaps more than any other branch of Indian Art, a constant deterioration. Modern work is indeed so clumsy as to appear primitive.

The Mirkula temple, like that of Lakshana Devi, has an ante-room or *mandapa* in front of the Shrine proper, and a solid wall enclosing both. It is surmounted by a high conical roof. It would be impossible here to give an adequate description of the wood-carvings which cover the facade of the shrine and the ceiling of the *mandapa*. The central panel of the latter, with its magnificent lotus rosette enclosed within a *vajra* border, is similar in construction and partly in design to the ceiling of the Pandrenthan temple in Kashmir. It is not a little curious to find, on one of the other panels of the ceiling, a representation of the temptation of Buddha by Mara, the Evil One; a subject which one would scarcely expect to meet in a shrine of the blood-thirsty Kali. In the centre the Shakya Sage is seated impassible alike to the charms of Mara's daughters and to slaught of his dreadful host. To the left is Mara, standing on a chariot drawn by dragons, shooting, an arrow at Buddha. To the right we see him again on the same chariot after his attack has failed. His two daughters support him, while bow and arrow are dropping from his hands and the animals attached to his chariot have fallen into disorder. Of the remaining carvings I wish only to note scenes from the Mahabharata and Ramayana on the architraves. Two panels on both sides of the window represent the Churning of the Ocean and Vishnu's Dwarf (Vamana) incarnation. Conspicuous in the latter is the figure of Vishnu who, having assumed his divine shape, bestrides the Universe in three steps.

Chamunda Temple at Devi Kothi: Of the other numberless village temples, mostly dedicated to a Devi or Naga, the only one which deserves a passing notice is that of Chamunda, at Devi Kothi, on account of the Mughal influence manifest in its wood-carvings. It was built by Raja Umed Singh in A.D. 1754. The same influence is observable in some profane buildings of that period *e.g.*, the State Kothi at Brahmaur, ascribed to Raja Prithvi Singh, which was destroyed in the earthquake of the 4th April, 1905. Specimens of modern wood-carving, as far removed from the old work in merit as in time, may be seen at Mindhal, opposite Sach, on the temple of Chamunda (commonly called Mindhal Devi), and on the little Naga temple near Kilar.

Villages: In a mountainous country like Chamba, much of the land is necessarily unsuitable for cultivation. Large tracts are covered with dense jungle or forest, while the slopes

are often so steep as to render farming operations impossible. In many places also the soil is too poor to repay the labour of the husbandman. The villages are found wherever an area of arable land exists sufficient to support a few families, and occasionally a solitary house may stand on a small patch, where there is not room for more. As a rule, however, there are several houses together, though the villages are always small. They are larger in the bottom of the valleys than on the slopes where the soil is poor and less productive. Each village stands in the midst of its own area of cultivation. On the flat the houses are all on the level, but higher up they are arranged in tiers one above another. In the higher mountains, and specially in Pangi, great care has had to be exercised in the selection of village sites so as to avoid all risk of falling rocks and avalanches, and though every precaution has been taken yet accidents sometimes occur from this cause. Landslips, too, constitute a danger which must be borne in mind in selecting a site for building.

Villages and Houses: The houses are generally square or rectangular in shape. The favourite aspects are towards the East or West facing the rising or setting sun, but this feature is often disregarded. A northern aspect is usually avoided. In the Churah *wizarat* the houses are one or two storeys, with a flat roof, called *saran*. Those of the Sadr *wizarat* show greater variety, the flat roof predominating in the northern, and the *bhordar* or slanting roof in the southern portion. In Brahmaur the houses are generally two or three storeys, and are built like bungalows, with projecting verandahs above. The lower storey is reserved for the cattle and sheep, the family occupying the upper storey. During summer the cattle are sent to the pasture and the lower storey is then empty. A one storeyed house is often shared by the family with the cattle, which are penned off by a wooden partition. In Pangi and Lahul the houses are always two storeyed with flat roofs. In summer the family occupies the upper storey and the cattle are sent to the pastures. In winter the cattle are penned off by a spar partition at one end of the living room in the lower storey, the family occupying the other end.

In Bhattiyat the *zamindars* live in one-storeyed *kothas* or huts, or in two storeyed houses called *bhor-dar*, roofed with wood or slates or some *khar* grass. Well-to-do people have separate houses for their cattle, but the poorer classes sometimes pen their cattle in the house, screening them off by a partition. Others pen the cattle in the lower storey, and live in the upper storey. The door of the house faces towards the road without regard to its aspect. *Bhor-dar* houses are built with a space towards the road, and a verandah or *angan; kothas* are usually built touching one another, without a space for the road, but some build them leaving space for the *gali* or street. Good sites are chosen for houses, and in selecting them care is taken that they are not on a damp or lowlying spot. The earth of the site is shown to the Pandit and the house built after consulting him, its length and breadth being fixed under his directions. The houses in that part of the State are often more neatly constructed than anywhere else, being built of stone and roofed with slates, but sometimes they are only wattle huts.

In the other *wizarats* the village houses are strongly if roughly built, as they need to be in such a climate. The walls are constructed of a framework of wood filled in with dry masonry, and carefully plastered. When the roof is flat it is composed of wooden rafters, with small twigs or any other suitable material spread over them, and on this is laid a thick layer of pine leaves and several inches of earth. When slanting the roof is usually of shingles, but if slates are procurable they are used. There is only one door and no window, so that the interior is dark, and as the cattle are often penned up in one corner, things are anything but pleasant but the people do not seem to mind, and living as they do so much out of doors it probably does them little harm. Generally there is a verandah which adds of their comfort. A ladder formed of a beam cut in niches leads up to the *saran* or flat roof, where in summer most of the village work is done. The smoke escapes by a hole in the roof, partly covered by a stone slab, to prevent the rain and snow from entering. Bee hives are often fixed in the walls. The hive is a log of wood, hollowed from end to end, and laid across so that one end is outside, and the other projects a little into the interior. In the outer end is a small hole by which the bees come and go, and the inner end is closed with mud, but can be opened at any time to extract the honey.

Chamba Town-Dwellings: The capital has been almost transformed in more recent years by the extensive building operations carried out by the State and private persons. The new houses in the town are better built, and greater regard is paid to ventilation and light. Windows are now considered essential, and more care is taken by the people to make their homes sanitary. The dangers resulting from damp are more fully realised and guarded against. Most of the houses in the town are two and three storeys high, and all the newer ones are roofed with slates. As a rule the floor is of mud, unless in the houses of the better classes, where wooden floors are common. The cooking is usually done in the *bhor* or upper storey. The general plan in building is a square round a central court-yard, but this plan is adhered to only where the house is large. As a rule, however, each house has its own court-yard in front, even when the more general plan has not been possible. The furniture varies in quantity and quality with the social position of the occupant. Among the better classes some of the rooms will be in English style. Among the poorer classes few articles of furniture are found beyond the bare necessaries of life, but the houses are generally neat and clean. The sanitary arrangements of the town as a whole are satisfactory."

GAZETTEER OF INDIA, HIMACHAL PRADESH, CHAMBA, 1963—PAGES 39, 187-188, 199-200, 208-209.

"*Slates*: There are enormous deposits of slates in the district of Chamba which are being worked for the last few centuries for roofing and flooring purposes in the tahsils of Chamba and Bhattiyat. The quarries are situated at heights ranging from 3,000 feet to 7,000 feet and even above. There are about fiftyone slate quarries in all, out of which thirty-nine are situated in the tehsil of Bhattiyat and the rest in the tahsil of Chamba. The slates of a few quarries, considered suitable for the manufacture of school slates, were sent to the Geological Survey of India for their opinion. The Geological Survey of India recommended the slates of Johar, Makroti and Sajot quarries for the manufacture of school slates. Out of these quarries the slates of the Makroti slate quarries are the best."

Types of Dwellings (Bhattiyat Tehsil): "Generally the houses are rectangular. The favourite orientation is towards the east and the south. The majority of the houses is two storeyed. Roofs of the houses are covered with slates and are kept slanting on both the sides. This is called the *Kanchi-jor* style after the wooden supporting framework made by rafters joined together. The material used in the construction of houses is dressed or undressed stone, earth and *chil* or Deodar wood. In the lower storey which is called the *van* or *obri*, a portion is utilised as sleeping room and the rest as a store for valuables. The upper storey is meant for kitchen as well as storehouse of less valuable articles. The house contains only one main door in the lower storey and one or two holes in the upper storey. To reach the upper storey there are steps made of earth and stone, the entire flight being inside the building. The upper storey is called *bhor*. People take their food in the kitchen. The space in the *bhor* is also used for thrashing maize. In the *bhor* there is a round hole to the lower storey. Through this hole the separated grain of maize is poured down. Cattle are housed in a separate structure known variously as *god* or *goran* or *gowar* or *ghural*. A small court-yard is kept in front of the house, invariably. The structure of the houses is fairly suitable for different seasons. The total cost of construction of an average house goes upto one thousand and five hundred rupees. Since the people help each other on reciprocal basis in the construction of the houses, the cost in cash, generally speaking, does not exceed seven hundred to eight hundred rupees.

The site of a house is selected in prior consultation with the pandit to whom some earth of the proposed site is brought and shown. When the site has been approved of by the pandit the time for commencing the construction or laying down the foundation stone is also fixed by him. The foundation-laying is called *baisku-rakhna*. The time for erecting the door of the house is also fixed by the pandit. After construction, an auspicious day for *pratishtha* (consecration and opening) is also fixed by the pandit. On the *pratishtha* day, after *hawan* (sacrificial fire) in the house, a *dham* or feast is given to all the relatives, near and dear and neighbours. The priest gets some grain and ..... for analysing the earth. The person laying the foundation stone also gets one Rupee and twenty-five naye paise for the job.

Similarly the person erecting the door gets something according to the means of the owner of the house. On the completion of the house the carpenter gets one rupee and twenty-five naye paise and is also given the gift of some clothes, besides his normal wages. All these payments are customary and are locally known as *lag*.

No special arrangements are made for the escaping of the smoke from the kitchen. But when the smoke accumulates, a slate on the kitchen is removed to one side, thus improvising an outlet. Threshing floors are, sometimes, constructed at a distance from the house and, at other times, the courtyard of the house is used for the purpose. Usually, no arrangement for the bee-hive is made in the house.

The above description is of the housing conditions in the lower altitudes of Bhattiyat. Higher up in this tahsil, there is this difference to be found that the lower storey, is, as a rule, meant for livestock, and the upper one which is more of a formal and regular room than the *bhor* of the valley, is used by human beings.

With the advance of times, modern touches are appearing in houses, and, already, there is quite a number of newly constructed buildings substantially different in style from the traditional ones and tending appreciably towards modern patterns, especially in matters like ventilation. Conscious efforts on the part of official quarters are also afoot to improve housing styles, and these efforts are exercised not only in verbal advice but also in the shape of practical stipulations when loans and subsidies are given to prospective house builders.

Furniture and Decorations: In an average house, the furniture consists of the following main articles:—

(1) Cots (*manja*). This article of furniture is more prevalent in the main valley than in the villages at higher altitudes.
(2) Grass seats (*binne*).
(3) Wooden seats (*baisani*).
(4) Mats (*mandiri* or *phuri*) made of rice straw or *bagra* grass."

Houses (*Chaurah Tehsil*): "The general shape of the houses is square or rectangular. The shape of the houses is not uniform. Whatever shape the site of construction may warrant, is adopted. Majority of the houses is one storeyed, a few are two storeyed, and very few three storeyed. Roofs are generally flat, made of shingles on which clay, about one-and-a-half feet deep, is spread and pressed hard by employing the animals to tread down the same. This is due to the reason that slates are dear and construction of flat roofs involves less cost, and also for the reason that flat roofs are capable of being used as thrashing floors which, owing to the inadequacy of flat space, cannot always easily be built separately near the house. The walls of the houses are generally built of stone and wood. The timber used, as a rule is *taun* and *kail* and occasionally deodar. Doors are made of *kail*. Provision for ventilation and light is very limited. Only about five per cent of the houses are provided with a proper window. The inside of the houses is almost dark, so much so that even in day time a light has to be lit to find things. The accommodation usually consists of only one hall enclosed by four walls. This serves all the purposes of a store, a dining room, a sleeping room and a cooking place, and for housing of animals too. This accommodation is utilised in this way; in the centre is the hearth; on either side of the hearth are the beds of the family; and behind the hearth is a screen of spars behind which animals are tethered with their faces towards the hearth. The surroundings of the houses are worth no special mention, except that near some of the houses there are kitchen gardens in which some vegetables for the family consumption may be cultivated. But where the village consists of many houses standing in a close cluster, the surroundings may be too congested for this. If the houses are arranged in tiers, then the flat roof of the lower house serves as the courtyard of the upper house if both houses belong to the same family. In the ancient days, an ordinary house of flat roof could be built with a cost of about two hundred rupees. In these days the same type of house requires an expenditure of six hundred rupees. The main cause of the rise in the cost of construction is the rise in wages and prices.

A pandit is consulted invariably regarding the time; date etc., of laying the foundation-stone for fixing the frame of the door (*dwar sakh*) and, about the auspicious occasion for the fixing up of *agethi* i.e., hearth. After the

completion of the house, whenever it may be possible for the owner, a ceremony called *amokh* is also performed in which pandits, relatives and near and dear are feasted. *Khir* (rice boiled in milk and sweetened) is served essentially. Other items of food are *dal, kari* and *manday*. On the same day the carpenter constructing the house is paid whatever remains of his dues and besides, a complete suit and a *chaddar*. The carpenter in his turn is required to throw some water on the house meaning that he has received all his dues and nothing remains due from the owner. A hole is left in the *saran* (flat roof) to serve as chimney. It is through this hole only that some sunlight enters into the house. This hole is called *ungu*. It is partly covered with three stones in such a way that the water of the rain may not find its way through it into the room. In the winter when the cold is severe, something or the other is thrust in this hole to prevent the piercing cold winds from blowing into the room.

Bee-hives are often fixed in the walls. The hive is often nothing more than a log of wood, hollowed from end to end and laid across the wall so that one end is outside and the other projecting a little into the interior. In the outer end is a small hole to serve as entrance and exist for the bees, and the inner end is so closed with mud that it can be opened, at the will of the owner, for the extraction of honey.

Furniture: The articles of furniture in this tahsil are almost the same as in the Bhattiyat tahsil. The wooden seat known as *baisani* in Bhattiyat is called *dikhru* in this tahsil."

Types of Dwellings (Pangi Sub-tahsil): "The houses are usually rectangular and double storeyed, and are made of wood and stone, the roofs being as a rule, flat, covered with clay. This shape and structure of the roof often makes it handy as a threshing floor. Ventilation is inadequate, the stress being on making the building resistant, to the maximum limit, to cold and wind, even at the sacrifice of ventilation. There is usually a hole in the roof for the escape of smoke. In many houses, there are special rooms, in the lower storey, for winter, when human-beings share the ground-floor with the live-stock, at times in different rooms and in other cases in one and the same room, the animals occupying one end and the human-beings the other.

Every snow-fall produces the common spectacle of whole village on their house-roofs throwing away the snow with flat wooden shovels, specially made for the purpose or with other weapons.

At an average a house costs about five hundred rupees exclusive of the value of the mutual assistance traditionally rendered free of wages by the villagers. The usual practice is for no Brahmin to be consulted for any auspicious moment for the commencement of the building work of the house and for its inauguration. Sanitation leaves very much to be desired. As a rule, there are no bath-rooms or latrines or urinals attached to the houses. In fact, there are no community bath-rooms or latrines or urinals either. While the face and the hands are washed daily, by and large, the bath of the whole body is a very different matter and, throughout the year, there are but rare occasions when the average villager thinks of bathing. Streets, edges of paths, cultivated fields, and convenient places almost anywhere in the snow bound area, are utilised for answering the call of nature. The torch-wood is still the predominating means to light the nights, lamps and lanterns being exceptions come by only here and there, to say nothing yet of electricity. Water supply within the house is unknown and water is drawn and brought home daily from open springs.

Furniture: There is no furniture. Not to speak of other pieces of furniture, even *charpies* (cots) are not available in so many villages. Generally, brass utensils are used as food vessels and for cooking. Foodgrains are kept in wooden boxes or goat skins. Clothes are kept hanging over windows or lie on the floor. They have generally a weaving apparatus known as *kargha*. They have spinning tools too, made of wood. There are goat-hair-mats for sitting and lying purpose locally known as *thobies*.

Decorations: Pictures are found in very rare cases and these are of Shiva, Ganpati and Chamunda Devi etc. Windows and doors are not painted. The wood work is quite simple. People have hardly any artistic taste in these matters."

Notes on House Types and Residential Pattern of Villages

HOUSES OF CHAMBA DISTRICT, HIMACHAL PRADESH BY D. D. BINDOO, ARCHITECT, HIMACHAL PRADESH, PWD

The houses surveyed here show a great variety in size, planning as well as the method of construction used. But they also have a kind of similarity which has been brought about by the use of indigenous building materials and because of the people's mode of living.

Some of the houses consist of only one room which is actually a multipurpose space enclosed by walls around and a roof above. The whole space is shared both by animals and men. The use of the various spaces in the room is defined by low partitions etc. Some portion of the room is usually set aside for storage purposes. The room is mainly used only for cooking and, sleeping; and for bathing but only in cold weather. In some cases the planning is improvised by using a low ground floor for the cattles and the upper floor for the human beings. Those who can afford to build larger houses, have built smaller rooms for different purposes. These rooms mostly have communication through a large multipurpose room. Thermal insulation has been achieved by compact planning and by adopting the age old indigenous methods of construction. All the houses show a total absence of bath rooms and latrines. Bathing in winter is done inside a small nook in the kitchen itself or near about the cooking space and in summer every one takes bath in any nearby mountain brook. People mostly prefer living out of doors whenever it is possible to do so; and the house is mainly used as a night shelter for themselves and for their animals.

The method of construction used throughout the District is roughly as follows:—

Houses are either single or double storeyed, the most important material of construction being the local stratified slate-like stone and wood. Walls are built of rough stones in mud mortar, their thickness varying from 1′—6″ to 2′—6″. They are further strengthened in some cases by introducing horizontal wooden plates at regular intervals. The lintels for openings consist of thick wooden scantlings. The walls are plastered internally by a mixture of earth and cow-dung. They are also plastered externally. When the walls are plastered externally the plastered surface receives a lime wash. The flooring consists of rammed earth brought to a smooth finish by plastering it with a slurry of soft earth and cow-dung. The posts, beams and joists consists of deodar wood scantlings or even round ballies. The roof is generally laid on 1″ thick wooden boarding. It consists of a 6″ layer of mud mixed with chopped hay (pine leaves and cow-dung are also mixed in it sometimes). Above this is laid a 6″ top layer only of mud and cow-dung brought to a smooth finish with a soft slurry In some cases the layers described above are intercepted with a thin layer of *"Bhojpatra"*, used as a water proofing material. When sloping roofs are used they consist of a truss formation composed only of a horizontal tie beam with vertical posts to support the slopping rafters. The top covering consists of closely spaced battens to support the top layer of slate-tiles regular or polygonal 1″ to 1½″ thick. Rough stone or wooden ladders are used to reach the upper floors or the attics. These are generally placed immediately below the access aperture in the floor. The floor heights vary from 5′—6″ to at the most 8′—6″. The thin inner partitions are often built with 3″ thick planks of deodar wood. Windows are small and are mainly used for the purpose of ventilating the rooms. They are often ornamented externally in the traditional manner. The walls are also sometimes decorated by painting geometrical or floral motiffs on them, painted with indigenous earths on a lime-washed surface.

DEVI KOTHI VILLAGE, CHAURAH TEHSIL

Residential Pattern: The villages are seen wherever there is culturable land available. In the higher mountains care has been exercised in selecting sites for houses or villages to avoid risks of falling rocks and avalanches. Though precautions are taken accidents do occur. Landslides too constitute a danger which must be considered while selecting the sites. A hundred years ago an entire village near Tisa in Chaurah Tehsil was destroyed by a big land-slide.

The settlers of Devi Kothi have taken care to avoid the danger of possible land-slides, and have built their houses at three different localities, named Dhariala, Loharka and Devi Kothi. All these form one revenue village called Devi Kothi.

House Types: With the exception of a few, houses are single storeyed. These are constructed in a terrace formation. There is one specific pattern of the houses in so far as their roofs are concerned. The houses have flat roofs. The roof of one house below serves as a courtyard for the other above. The flat roofs are used as thrashing floors also.

Discord in the flat roof structure is provided by four buildings where they are gabled. These four buildings are the Forest Rest House, Forest Guards Quarter, the temple building of Chamunda Devi and a shop cum residence.

In majority, each house consists of one room with an entrance from a side. In a few other cases, a house consists of one room and a partly enclosed verandah in the front both connected by a door. Breadthwise, verandah is completely walled up from one side, and the side opposite to it has a built in main entrance to the house with a proper door fixed. The family including guests and livestock live in one room. This is sleeping room, sitting room, kitchen and cattle shed all combined into one. No proper ventilation is provided excepting an outlet for smoke in the roof. The hearth is made in the centre of the room. Cattle are generally kept on one side of the room. Storage vessels are kept on the other side of the room.

There is no structural difference between the houses of Scheduled Castes and others. Economic factor and/or personal taste makes the difference. Even today a house of a *Batwal* (Scheduled Caste) may be better than the house of a Brahmin for reasons of personal taste and better economic conditions. Houses of the poor usually consist of one single room.

The main entrance of the house faces east or west but never downwards or upwards towards the hill. It never faces north or south as that is considered inauspicious.

Construction: The simple village folks have simple arrangements to construct their houses with the help of locally available material. No religious customs or beliefs are associated. It is not necessary to consult a *pandit* about the suitability of the site, but an auspicious day is fixed for digging the foundations. If convenient a Brahmin is consulted about the day otherwise any day is fixed. Foundations to the depth of 2 to 3 feet are dug. At the time of laying the first foundation stone, *halwa* is distributed to all present. Well-to-do people sometimes sacrifice goats and the meat is shared by all who work on the foundations.

The village *Lohars* — blacksmiths (Scheduled Caste) are the village carpenters also. During construction, the carpenter is served daily meals, and is paid some agreed wages in cash and kind. The villagers help one another in collecting the building material, such as stones and timber. The intending builder of a house serves the helpers with a good meal.

The walls are generally built in dry stones with intervening rough logs of wood fixed at every 3 feet or so. When the walls are 9′ or 10′ high the roof is laid. Over the wooden frame work of the roof dry grass leaves or *bhojpatra* sheets are spread. About 6″ moist-clay is then spread over the *bhojpatra* or grass leaves and rammed down. Then a coating of clay and cow-dung is given and this completes the roof. The roof is properly supported by four wooden and stone retainers built inside at the four corners of a room. These retainers are locally known as *tholas*. Wooden supporting poles to the roof are fixed in the centre of a room in case of a big roof. In some houses if a room is big it is divided by a wooden partition. The walls of a room are plastered with mud. They are given a coating of clay mixed with cow-dung at least once a year. The mud floor of a room is given a coating of clay mixed with cow-dung frequently.

Since the room serves as cattle shed also, the place of the cattle is penned off by a wooden railing. A smoke outlet (*ougoon*) is provided in the roof. For keeping water pots and utensils a niche is provided quite close to the entrance to the room and this is called *gharyani*.

General sizes of various parts in a house—

Floor	20×18 Feet
Door	6×3½ Feet
Roof	25×22 Feet
Height of wall	9 Feet
Size of cattle pen	20×6 Feet

KUPHA, MALET, PARMAS AND THAMOH VILLAGES, PANGI SUB-TEHSIL

Residential Pattern: Kupha, Malet, Parmas and Thamoh are four revenue villages, situated quite close to each other. Rajputs, Brahmins, *Aryas* and *Lohars* are the residents of these

villages. The main concentration of the Rajputs is in Kupha and Thamoh and of Brahmins in village Parmas. Some *Aryas* and the *Lohars* too have constructed their houses side by side. Similarly Rajputs and Brahmins live in village Malet, where the *Aryas* have a majority.

All houses are built along the mountain side—generally facing either the east or the south. There are no lanes or by-lanes. The house construction has been greatly influenced by the severe winters. The site should be sunny and closeness to fields and water are the governoring factors.

House Types: Generally double storeyed houses are built. The upper-storey is not built congruous to the lower storey. This is because upper storey is smaller in dimensions than the lower storey. Each storey generally has one room used for all purposes, cooking, sleeping and storing grains. In addition to this the ground storey room is used as a cattle-shed also. It is in winter that this ground storey serves both the household members and the livestock.

The upper-storey is locally called *mahala* or *bukhaari* and the ground-storey is called *koth*. The Pangwalas do not have separate cattle-sheds. The *koth* serves this purpose. In two sides of a *koth*, about six feet away from the walls, a wooden fence is fixed. The enclosure thus formed is the pen for the goats, sheep and cattle. Locally it is called *gawail* or *aaghal*.

The entrance to the ground storey is through a small door known as *shinkhal*. A small ventilator is provided which serves as an outlet for smoke also. It is fitted with wooden bars. A fire place or *chullah* is provided in the centre of the room.

During winter, the entire Pangwal family moves to the ground storey. The livestock is herded into the *gawail or aaghal*. With the heat of the *chullah* and warmth emitted by the cattle the temperature rises considerably and in the cosy warmth of the room, the Pangwalas are able to pass the dreary winter months with the few clothes. When summer approaches, the livestock is sent to the pastures and the household members shift to the upper-storey.

House Construction: The main material sed for constructing the houses are stones, ood, *bhojpatras* and *kangsi* grass. These are vailable locally.

The villagers help one another in the construction of the houses. One person more or less, from each household provides a day's free labour and the intending builder in return, of course, serves meals, in which *ghee* is served to one's hearts content. For all other days, wages are paid at the rate of Rs. 5.00 per day, per person.

Foundation (manyad rakhna): The village elders are invited to examine the suitability of the soil and site for the house. After this a foundation is dug three to four feet deep. The laying of foundation is called *manyad rakhna*. A small ceremony is observed at that time. When the foundation has been dug out a small bowl containing milk, a small piece each of gold and silver, one or two flowers, mustard seeds and a small piece of *lucchi (chapati)* is buried in one corner.

Ground Storey: After foundation has been laid, and filled up, work starts on construction of walls. The walls are generally eighteen inches thick, and of dry stone masonry. The door and ventilator are fixed at requisite heights in the walls.

Nias and Daar Lagana: When the walls of the ground storey are raised to the requisite height, big wooden logs called *nias* are laid on the walls. The heights of walls vary from house to house, ranging from $6\frac{1}{2}$ to 8 feet. This *nias* laying is a special occasion in the construction work. For this, villagers collect and bring the *nias* from the forest. This is known as *daar lagana*. When the *nias* is laid, a small ceremony is performed. A ram is sacrificed by the household building the house. The liver of the ram is roasted and distributed among the villagers. A piece of white cloth is tied to the *nias* which is given to the mason alongwith the head of the slain ram. After this ceremony, the roof of the ground storey, in other words the floor of the first-storey is laid. Wooden joists are laid across the *nias* and the walls. These are covered with small thin wooden boards called *faat*. The *faat* are covered with a typical grass known as *kangsi*. Over *kangsi*, sheets of *bhojpatra* are spread and on that about 6 inches of fine clay is

evenly spread. This is rammed down. That completes the ground storey.

Upper Storey: After the completion of the ground storey work starts to build up the walls of the upper storey. These walls as in the ground storey, are generally 18 inches thick and of dry stone masonry. The door and ventilator having been fixed at requisite heights in the walls and the walls having been raised to the requisite heights, wooden logs and joists are laid across the walls. The walls of the upper storey are a little higher than the walls of the ground storey, ranging in different houses from 7 to 9 feet. Over the joists in the upper storey roofing is done as in the case of ground storey. The roof has a little slope to drain away the rain water. Both sides of the walls in the house are plastered with mud when the construction is complete.

Makol: It is a type of white clay and is used for white-washing the walls of the house.

Badhaie Manana: On completion of the house, *badhaie manana* ceremony is performed. To observe this the house is cleaned. A ram is sacrificed and the hearth, locally called *udhaan* is consecrated by sprinkling the blood of the ram. The meat is distributed among the kith and kin. A feast is given to the relatives and villagers, followed by merry-making and dancing.

The residential pattern and house types of the villagers have been described above. About three miles away in the west of Malet some new buildings to house the government offices and the employees were coming up. The P.W.D. offices and Police Thana had been constructed. The School building was nearing completion. These new buildings had been constructed or built up in shape and design quite different from the local pattern. Spacious and well ventilated rooms were being erected. In windows and ventilators glass panes had been fixed. In some cases cement had been used in construction. The roofs of the new buildings were gabled and in place of G.I. sheets, however, wooden planks were being used as roofing material. The walls were white-washed and wooden frames of doors, windows and ventilators were painted.

Chitrari Village, Chamba Tehsil

Residential Pattern: The village is not laid out in any systematic way and a number of factors seem to have determined the pattern of settlement. The temple is the main attraction and this is surrounded on all sides by houses. Evidently it is clear from the situation of old houses that the first settlers occupied the space around the temple or near about. Closeness to the water sources is the other consideration. Clusters of houses all about the water springs have sprung up in the course of time. The main foot path passes by the temple and cuts across the village. The shops are located on either side of the path. The village is divided into nine sections namely Basarka, Chhatrari I, Kalanka, Brainka, Chhatrari II, Chachian, Kamharki, Ukhli and Charauta. They are connected with one another and the main path by narrow paths. The castes other than the scheduled castes live intermingled but the tradition has kept aloof the scheduled castes. *Aryas* and *Bensis* live in Basarka.

House Types: In all, there are 106 houses in the village. The houses are rectangular in shape. Except in the case of the Government and Panchayat buildings, which have been constructed recently and are spotted out by their G.I. sheet roofs, the houses are built with the locally available material. The use of cement and glass-panes is only found in a few newly built buildings. The three storeyed houses are more prominent. The houses situated in open locations have spacious courtyards in front with parapet walls about two feet high. The courtyard is paved with thick flat stones or slates.

The Gaddis have their own way of constructing the walls of their houses. Rough wooden planks in length corresponding to the thickness of wall and of varying breadth and thickness are used in an adequate number to erect hollow *thathre* upon the wooden binders placed on the plinth. Initially two planks are placed parallel to each other resting on their thickness lengthwise over the binders. Bridging the two planks at their outer edges two other planks are placed and fixed parallel to each other resting on their thickness lengthwise. This process continues till the required storey height of *thathre* is attained. The hollow space in between *thathre* is filled with random stones. The *thathre* are connected by horizontal wooden binders, placed at varying intervals. These are locally called *chewals*. The frame

work so erected is filled in with dry stone masonry. After the walls have been completed these are plastered with a thick layer of mud mixed with cowdung and straw. Hitherto white washing has been hardly known to them. Of late, however, the well-to-do households have taken to white washing with clay, locally called *makol*.

Farque Walls: The portions in between *thathre* instead of being constructed in solid masonry are covered with wooden planks fixed vertically and nailed to bracings. Generally the walls above the ground floor are built in this pattern. This is done to reduce the dead-load of the walls and there is increase in the size of accommodation.

Generally in the upper floors, the joists are projected over the walls to lengths varying 3 to 5 feet. Planks are fixed across over the projected joists. This forms a canti-lever verandah, locally called *dragra*.

Roofing: The roofs are generally gabled. Rough and coarse slates of irregular shapes and sizes are used for roofing. The slates are fixed on thick planks which rest on purlins. The purlins are fixed across on wooden rafters. In many houses the slates are fixed directly on the purlins thus avoiding the use of planks.

Source of Material: The timber, stone and slates used in the construction of the houses are available locally within the radius of four to five miles. Paints, varnish and window panes which are imported are being used in new constructions.

Structural fixtures are manufactured by the local blacksmiths for which raw material is procured from Chamba.

The villagers of Chitrari can obtain timber on concessional rates for constructing their houses from the local unclassified protected forests and demarcated protected forests. The rates charged per tree are:—

Name of tree	Diameter in inches	Rates Rs.
Deodar	28 to 32	7·00
Deodar	24 to 28	5·00
Deodar	20 to 24	3·00
Deodar	16 to 19	2·00
Deodar	12 to 15	1·00
Deodar	8 to 12	0·50
Deodar	under 8	0·25
Kail	24 and over	2·00
Kail	20 to 24	1·50
Kail	16 to 19	1·00
Kail	12 to 15	0·50
Kail	8 to 12	0·25
Kail	under 8	0·12
Fir tree	24 and over	0·50
Fir tree	20 to 23	0·25
Fir tree	16 to 19	0·12
Fir tree	12 to 15	0·06
Fir tree	under 12	free

Obra: The ground floor is locally called *obra* and is used as cattle-shed. Along the walls in the *obra* wooden pegs are fixed in the ground to tie the cattle. There is only one small entrance to the *obra*. Small holes in the walls are provided as ventilators. Agricultural implements are stored in one of the corners of the *obra*. In some houses, the *obre* are partitioned and portions thus formed are used for sleeping by the households.

Bhor: The top storey of a house is locally called *bhor*. It is approached from below by a wooden ladder peculiar to the hills. It is a log in which notches are cut vertically to form steps. The floor inside is of wooden planks with thick coat of mud over them. The members of a household reside in the *bhor*.

Obri: In a three storeyed house the first floor is called locally as *obri*. It is approached from below by a wooden ladder. It is used for keeping the utensils and other household goods.

The height of the walls in the houses is kept deliberately low because of the snow-bound character of the region. Rooms high and large can be very cold. The same very reason explains scantly ventilation and the small sizes of the doors passing through which one has to bow a little. These help to keep the cold draught out to a great extent.

The villagers do not help one another by way of free labour in the construction of houses, as is done in many villages in the hills. The construction of the houses is executed by masons and carpenters from nearby villages. One carpenter lives in the village. His charges are Rs. 4.00 per day. Quaint figures are drawn on the walls in varied colours of pink, yellow and red. The motifs primarily relate to their religious beliefs and practices.

Rituals: The local priest is consulted for laying the foundation of a new house. The site is also approved by him. In case it is considered unlucky, he suggests some sort of propitiatory worship and *dan*. A goat or sheep is sacrificed. Then the foundation stone is laid in compliance with the injunctions made by the priest. The main beam is also laid on an auspicious hour, when a goat or sheep is sacrificed. A piece of meat is tied to the beam to ward off evil spirits. Before the occupation of the house, *puja*, locally called *nawala*, is offered to Lord Shiva to invoke his blessings. The blessings of the local goddess 'Shiv Shakti Devi' are also invoked by *puja* in the temple.

MAINGAL VILLAGE, CHAMBA TEHSIL

Residential Pattern: There are thirteen hamlets in the revenue village Maingal inhabited by 31 households. The households in general have built their houses adjacent to their fields, and thus so many hamlets. The hamlets are Bhalala, Bhoolo, Galoo, Gandera, Kayada, Maingal, Malog, Manait, Manaita, Manaiti, Ragual, Tapay-da-Ghot, and Tritha. Maingal hamlet after which the revenue village is named, has 7 houses closely built, the other hamlets have one to three houses in each. Maingal hamlet inhabited by Brahmans is surrounded by eleven *Gujjar* hamlets and one *Lohar* hamlet on three sides. Bhalala, and Tapay-da-Ghot lie about hundred yards to the north, Tritha about 50 yards to the south and Gandera and others about 300 yards towards east.

The houses have been built up without any planning on the slopes. The narrow zig zag paths connect the hamlets. Before every house, there is a small courtyard, where grains are spread for drying and cattle are tethered in fair weather. One or two trees of wild appricot or peach stand in the compound.

House Types: The houses are single storeyed. Alla Ditta, a *Gujjar*, has built the only double storeyed house recently with the grant given by the Social Welfare Department. The housing patterns of Muslim *Gujjars* and Brahman *Gaddis* differ. *Gaddis* have separate cowsheds whereas, in majority a *Gujjar* family ties its cattle under the same roof in a separate enclosure, partitioned by a *pucca* wall. Passage to the enclosure is through the living room of the *Gujjar* family. *Gujjars* do not have any windows in their houses, whereas *Gaddis* have.

The dwelling of a *Gujjar* is known as *kotha* rectangular in shape, having flat mud roof. A *kotha* has one multipurpose room and a walled enclosure for cattle. In the room, kitchen is on a raised ground separated by a small partition. There are no windows or ventilators provided. The inside is stuffy and smoky due to constant fire, and because of the numerous buffaloes in the adjoining enclosure with no direct opening outside. Mosquitoes and flies abound.

Houses of *Gaddis* have been built one behind the other. They have windows and are comparatively open and cleaner than the *Gujjar* houses. Cowsheds and kitchens are separate. The roofs of *Gaddi* houses like those of the *Gujjars* are of mud and flat.

Building Material: For construction timber is obtained from the forests near the village. It is available at concessional rates from the Forest Department, according to the rights of the villagers. The villagers do not have to worry about stones, which are found nearby.

Labour: The villagers help one another in collecting the building material. This collective effort is known as *saret*. No wages are paid in kind or cash to working men. Due to their tight economy, villagers revealed, that work like sawing of timber, preparation of door frames, digging foundations, construction of walls and laying of roof are carried out by the house owner with the help of relatives and neighbours. It is very rare that paid labour is engaged. Sharwan *Gaddi* is the only person who is reported to have engaged labour from Kakala village 4 miles away. He paid Rs. 2.00 for a labourer and Rs. 5.00 for a carpenter or mason.

Construction: When enough building material has been collected, construction starts. *Gujjars* select any of the four days; Sunday, Monday, Thursday or Friday for starting the construction. But Brahman *Gaddis* consult their family priest and find out an auspicious day for starting the work.

The first stage is the excavation of foundation. This is called *Neeh*, about four feet deep and is filled with stones. When the foundation reaches the ground level, the wall construction starts. The walls are between two or two and a half feet in width.

There is no superstition about keeping the doors in any particular direction. It all depends upon the site where the house is to be constructed. In a majority of houses doors face the south. The door frame is placed when the wall reaches a height of about a foot. When the foundation is dug and door frames are placed, *gur* is distributed to those who gather for this occasion. The construction of the walls is carried to the height of about eight feet when the house is ready for roofing. Mortar is not used. Walls consist of undressed stones and wooden beams placed at intervals. The back wall of the house is erected along the hill slope. This remains damp during rainy season.

During the construction of walls, small niches are left out which are used for keeping household articles. When the walls reach generally the height of about 8 feet, roof is laid. First of all, long wooden beams are placed one foot apart over the walls. These are known as *bandey*. Then small wooden rough planks are placed over *bandey*, which are known as *sheele*. After laying of *sheele*, it is covered with *bhojpatar*. Then about 9" thick layer of mud is spread all over the roof and rammed down. *Kakeh* grass is also used in place of *bhojpatar*. Stones are placed on the edges of the roof all around. In this way mud keeps intact and does not wash out in rains. A thin layer of mud is spread on the roof frequently. The roof projects outward by about two feet over the walls. To one side of the houses in some places, the projection of the roof is about 6 feet, under which agricultural implements and fodder are kept. The roofs are supported by one or two poles from the centre of the rooms.

Doors are of thick wooden planks. These sometimes have a crude carving of flowers or animals. The window shutters in *Gaddi* houses are not permanently fixed with hinges. Instead wooden planks are used in a manner that they can be removed away or placed in position to open or close the windows. The dwellings have no bathrooms or latrines.

After constructing the walls and laying the roof, the house is plastered with mud. After this a thick coat of brown mud known as *gunret* is applied. When this dries, a coat of white mud known as *makol* or *gunret* again is given inside and outside. Even doors and windows are coated with *makol* or *gunret*. The mud floor inside the room is given a coating of mud at frequent intervals. Coating of walls takes place once a year. In some houses, a few line drawings of guns or trees on the walls have been observed.

A ceremony is held before occupying the new house. A feast is thrown out to the near relatives, friends and villagers. Among *Gujjars*, this ceremony is known as *Nayaz* while *Gaddis* call this *Pathraitna*.

The cost of a house is considerably low. The help rendered by the villagers and relatives keeps the cost low.

HALTI VILLAGE, BHATTIYAT TEHSIL

Residential Pattern: Halti is the biggest of the 10 hamlets forming the revenue village. The residential pattern in Dramman varies from other hamlets. Some of the houses here have shops in the front and a portion is utilised for residence. The shop-cum-residential houses have been constructed in a single row in the form of a bazar whereas in other hamlets no systematic pattern has been followed and houses have been constructed wherever space was available.

In Hatli proper, the people live in separate clusters of houses connected by narrow lanes and bye-lanes paved with unhewn stones. Other hamlets more or less follow the same pattern.

A mention may be made of the Bangala colony which has been constructed by the Government and forms a single row of huts ments with open space in front as well as at the back. The boundary of each house is generally marked with low boundary-walls. In some cases no boundary walls exist and the houses open either directly on the fields or on the by-paths.

Generally houses have some open space in front of them which are the *angans* (courtyards) of the houses and which are generally used for tethering cattle. Excepting the *Chamars*, all the castes live inter-mingled and it is not uncommon to find the house of a *Doomna* situated near the house of a Rajput. *Chamars* live in Gadwana hamlet on the outskirts of it. Other hamlets do not have any *Chamar* population, and they are served by the *Chamars* living in Gadwana hamlet. Incidentally, it is again this hamlet where Muhammadens, barbers, a blacksmith and a tailor live.

House Types: The houses in the village are generally double storeyed. The ground floor generally has a verandah in front. The verandah has lean-to-slate roofing whereas the rooms on the first floor have gabled or pant-style slate roof. The number of rooms vary according to the means and the requirement of the owner but usually a house has two rooms on the ground floor with a separate kitchen and two rooms on the first floor.

Although the size of the room varies according to the requirement of the owner, the general size is 10′ x 12′ or 12′ x 14′. The height of the room on the ground floor is 7-8 feet and on the first floor 6-7 feet. A room has a single door of 3′ x 6′ dimensions. The windows are without shutters but have iron bars.

After the selection of the site and its levelling foundations are excavated to a depth of about 3′ and a width of about 2½′. Dry stones are filled up in the bed of the foundations up to 1′ height. Sufficient ramming is done to make it even and compact. Random rubble stone masonry is then done in off sets upto the plinth level. Since the village lies in the semi-hill area, it is safe from the capillary action of water, therefore, the height of the plinth is kept only 9″ to a foot. The gap between the wall and the excavated ground is then filled up with flints and earth.

If structural stones are not available in the vicinity, sun dried bricks are used in the superstructure. There are no fixed standards for the sizes and specifications of the bricks. We had an opportunity of observing the different stages of brick preparation during the period of investigation. The size of the brick under preparation was 10½″ x 5″ x 2½″. A locally made wooden mould was used for preparing bricks. The clay is brought over from the fields. It is well kneaded with feet after an infusion of straw till it becomes homogenous. The clay thus prepared is moulded into bricks which are then left to dry in the sun.

The standard width of the outer wall is 1½ feet but the inner walls may be of single-brick width. The masonry is done in mud mortar.

Niches are kept in the walls during the stage of construction. Generally no lintels or arches over the doors or windows are provided and the purpose is served by a thick stout wooden board of suitable thickness known as *saldar* or *sardal*. When the ground floor walls are complete a wooden beam is placed on the shorter span of the room in the centre. Generally the ends of the beam rest on half the thickness of walls. In some places full bearing width is given to the beam. After this the joists are placed. Their ends rest on the wall on one side and on the beam on the other side. The spacing in between two joists is generally 1′ centre to centre. Thereafter the wall construction is carried on to the first floor roof level.

After completing the walls the roofing is done. Rafters are placed on the walls forming regular slopes. A ridge pole is placed resting on the walls. The rafters are properly fixed to the ridge pole to avoid displacement.

On these rafters purlins are fixed across at about 9″ centre to centre. However, the spacing of purlins ranges according to the length of slates. On the purlins slates are nailed starting from the lower end of the gable towards the ridge end. The slates of one side of the roof project over the slates of the other side by about 6″ to avoid the leakage of rain water on the ridge. Sometimes semi-circular tiles are placed on the ridge to cover the slate joints. The slates used are of size 8″ x 16″ or 10″ x 20″. These are procured from Dharamshala hill slate quarries.

After completing the external operations of the building construction, the internal works are taken up. Generally *kacha* floors are in vogue in ground floors. However, in well-to-do houses tendency of having cement floors is on the increase. To make a *kacha* floor, the natural bed of the earth is watered and is well rammed. Flints and pebbles are filled in to raise the height of the floor to the plinth level. Well puddled mud mortar mixed with straw is then spread to form a level finish. After the floor is half dried, cowdung coating is given to make the surface smooth and to plug the cracks. The verandah floor is constructed in a similar manner. The outer walls of the verandah raised up to plinth level are covered with flag-stones. On these flag-stones, base-stones of 9″ x 9″ x 9″ ornamentally dressed are placed at about 7′ centre to centre. On these base-stones verandah posts are erected. A beam is placed upon these posts and rafters are laid. The lower ends of the rafters rest on this beam and the top ends are fixed

in the wall. Purlins are placed across, resting on these rafters. After this, the slates are nailed on these purlins to form the verandah roof.

Over the joists placed in position over the ground floor walls, at the time of construction, planks of about $1\frac{1}{4}''$ to $1\frac{1}{2}''$ thickness are nailed. Well kneaded mud mortar mixed with straw is then spread over the planks and a finishing is done similar to that of the ground floor. This completes the floor of the second storey. In the case of houses of the poor people, the planks are substituted by bamboos and local bushes.

Shutters of door and windows may be fixed with the help of hinges but in many cases they are provided with pivots locally called *chuls*. Such shutters produce a creaking noise when opened or shut. Paints and glasses had not been in use, but of late the villagers are developing a taste for using these materials in considerable quantities. Structural steel and other material are procured from Shahpur bazar.

The people use white or brown earth for white or colour washing. In many houses colour washing is done up to the height of 2′ from the floor level. In such houses lining of colour washing is also given to walls all round just below the ceiling. Rest of the portions are white washed.

There is a practice of providing maximum possible niches and recesses in the walls and most of them are provided in the kitchen. These are to serve as cup-boards to hold various articles required in the kitchen. A corner of the kitchen is paved with stones or slates where utensils are washed and serve as the bathing place also.

No smoke outlet is provided in the kitchen. The smoke from the hearth escapes through the door or window. The sides of the hearth are kept about 9″ high from the floor and a lining of about 1′ radius is given in somewhat semi-circular way touching both sides of the hearth. This is done in order to keep the rest of the kitchen free from hearth ashes.

Ceremonies: The family priest is invariably consulted for the selection of house site. Before laying the foundation, the site is sprinkled with sanctified water and a stone tied round with *mauli* (auspicious thread) is placed in the bed of the foundation. The priest attends this ceremony and for this he is given some rice, *gur* and *ghee*. *Gur* or *halwa* is distributed among those present.

While placing the main door-frame in position, the carpenter ties with a *mauli* thread in a small piece of coloured cloth, red or yellow, *dhaniya, supari* (beetle nut) and *kusumba*. This is fastened to the door-frame. Here the presence of the priest is not necessary. *Gur* or *halwa* is again distributed to mark the occasion. Similar ceremony is also performed while placing the main beam over the ground floor.

On completing the roof carpenter sits on it taking some flowers, rice and *drub* in his hands and he pours water from a pot down the roof. He would refuse to come down unless something is given to please him. The owner gives him a shirt and a turban or some clothes and a few rupees.

Parithya (Grihpravesh): On an auspicious day, after the house is complete, a ceremony known as *parithya* (the house occupation ceremony) is performed. This is the local derivation from the Sanskrit word *pratistha*. The family *purohit* works out an auspicious time for this. Before the ceremonial entry a *hawan* is performed to invoke the blessings of the gods. Five to seven Brahmans are feasted on this occasion and often *Satya Narayan Katha* is also recited. The near relatives and villagers are also feasted.

Wages: The daily wages for a carpenter and a mason is from Rs. 2.50 to Rs. 3.00 and for a labourer from Rs. 1.50 to Rs. 2.00 plus morning meals and the evening tea.

Timber: The timber required by the villagers for the construction of houses is available to them at concessional rates from the Forest Department. They have to submit their applications to the Forest Department through their Gram Panchayat. The concessional rates at which they are supplied timber by the Forest Department are—

Size (in diameters) and price per tree

Species	8″–12″	12″–16″	16″–20″	20″–24″	24″–28″	28″–32″
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Chil	0·12	0·25	0·50	0·75	1·00	1·00
Fir	0·03	0·06	0·12	0·25	0·50	0·50

39 households have only one living room each and 41 households two living rooms each for themselves. 14 households have three living rooms each whereas 8 households possess four rooms each. Only 4 households live in houses containing five or more rooms each. It would appear here that the largest number of households (41) are living in two-room houses. 31 households live in houses of more than two rooms each. Accommodation in Hatli is no problem at present.

BRAHMAUR VILLAGE, BRAHMAUR SUB-TEHSIL

Residential Pattern: Brahmaur is a congested village and has little room for expansion. The village has been built up on the slopes reaching the Chaurasi area and the houses are not systematically planned. Houses have been built wherever sites were available. Somewhere there is a mushroom growth and somewhere the houses are a little spaced. The lanes and bye-lanes are narrow, partly paved and mostly untidy. Each household has a courtyard paved with slates which is also used as *khalyan* (threshing floor) and is enclosed by a parapet wall about two to three feet high. In fair weather, cattle, goat and sheep may be tethered in the courtyard. The courtyard is used for sunning the grains, cutting fire-wood and other domestic chores, besides serving as a gathering place for the women to sit and gossip. The houses are generally two to three storeyed high although a few of the houses have four storeys. Due to shortage of building space, the emphasis is, therefore, on building multi-storeyed houses. The lower storey is called *obra*. The *obra* has a sort of verandah in front of it and a staircase (*manjhi, paran* or *sanari*) in the verandah leads to the first floor called *bhor*. Similarly a staircase in the first floor leads to the second floor called *mandeh*. In some cases where the *obra* has no verandah, the staircase leads to the first floor from within the *obra* just near the entrance called *dwari*. The *obra* is used for keeping the cattle, but if big enough, it is also used for living purpose. Sometimes it is partitioned, a portion being used for cattle and the other for residing. Agricultural implements are also stored in the *obra*. If the *obra* becomes too small for the livestock, then additional space is provided by constructing a cabinet called *ora*, of rough and uneven planks of wood, just outside the *obra*. Instead of regular ventilators, small round or triangular holes called *tohlu* are provided in the walls which let in some light and fresh air without creating draught. If the house is only two storeyed high, the *bhor* over the *obra* is the main room of the house. This is a living, sleeping, sitting, store-room and kitchen all rolled into one. In one corner of this *bhor*, a small space is paved with stones and an outlet provided for waste water. This is called *chara* and household utensils are cleaned here. This is where people bathe also. A separate bath room is never provided. Similarly no latrine is attached to the house and all go out to fields. The hearth is in a corner of the *bhor*. The people are unaware of the use of chimneys and a loosely fixed slate in the roof is shifted to serve as an outlet for smoke. Whenever it rains or snows, the slate is replaced. Near the hearth is a small platform (*charyali*) about $1\frac{1}{2}'$ high, used for keeping utensils and pitches of water. Alongwith the hearth is a structure called *harpur* where food is kept warm by the heat of the hearth. The *bhor* has a wooden projected verandah running full length in front of it. It is called *dragra*. Generally it is an open verandah used for basking in the sun, but a portion of it may be closed and the space used for storing grass. If the house is three storeyed high, the second floor is called *mandeh*. In that case, the *bhor* (first floor) is used as a store-room and *mandeh* as the living room and kitchen. Generally the *mandeh* has also a *dragra* running in front of it, but in quite a good number of cases, the *mandeh* is built over the *bhor* and its *dragra* to have added room accommodation in the *mandeh*. There is no *dragra* in such *mandeh*.

No cupboards or cornices are provided in the rooms, but niches or *tiru* are provided to keep the family idols and *Nags*.

Construction: A new house is constructed if the old one has become too small for the growing family and then when finances are available. The size and design of the new house depends on all these factors. The main materials used for building the house are stones, timber and slates. No mortar is used. If there is vacant space near the old house, that is used for the construction of the new house, otherwise a new site is acquired and the *chela* (oracle) of some deity is consulted who advises whether the site would foretell luck. If

not, a *puja* is held as advised by the *chela* or the priest and a goat may have to be sacrificed. The timber is obtained at concessional rates (*bartandari* rates) from the Forest Department. The people of Brahmaur are allowed to have timber from the Brahmni reserved forest and an application has to be submitted to the Forest Department after getting it recommended from the Village Panchayat. The slates required for roofing are obtained from any of the three slate quarries situated within a radius of two miles from Brahmaur. These slate quarries are known and called as Simbar Khaan, Goshen Khaan and Bassaur Khaan. Khaan means quarry. Stones are available near the village and for this too, a permit is obtained from the Forest Department. No royalty is paid for extracting slates and stones. The building material used to be collected with the help of the relatives and villagers. Food and *sur* were served to them. This practice is dying out and now labourers are working on daily wages @ Rs. 2.00 per labourer. As the construction of a house is a technical job, an experienced carpenter is engaged on a daily wage of Rs. 6.00. The carpenter may be of any caste as carpenters do not constitute a separate occupational caste here. In Brahmaur there is only one carpenter, a Brahmin by caste. The villagers often get carpenter from the neighbouring villages of Gossan, Sachuwin and Malkota. For constructing Government buildings, masons from Chamba are engaged by the contractors. They are also paid Rs. 6.00 per day. Foundations are dug to a depth of two to three feet and filled with dry stones and solid stone masonry wall is raised up to the ground level. The first step in the construction of walls above the ground level is to place wooden binders. Over them a number of *thathre* are erected to the storey height. Their number depends on the length and width of the structure. A *thathra* is a sort of wooden frame-work of planks (*thathar*). Planks in length corresponding to the thickness of wall are used in the erection of *thathra*. Initially two planks are placed parallel to each other resting on their thickness lengthwise over the binders. Bridging the two planks at their outer edges two other planks are placed and fixed similarly. This process continues till the requisite height of the *thathra* is attained. The hollow space of the *thathra* within is filled with random stones. The *thathra* are connected by horizontal wooden binders placed at varying intervals. The intervening space of the binders is fitted with random stones. Thus walls are completed which may be plastered with mud and cowdung. In some houses the portion in between *thathre* is covered with wooden planks, nailed to bracings. This type of wall structure is called *farque*, and generally built in the upper storey. Frames of doors and other openings are placed in position at appropriate places during the construction of walls.

Due to the area being subject to gale, sometimes as fast as 80 miles per hour, the roofs are made of heavy slates. The structure for laying the slates in many houses consists of the ridge pole (*baranda*), and wooden battons (*nhas*) laid parallel to ridge pole. The battons rest on rafters. In some cases in place of battons, there are wooden planks resting on rafters. The slates are nailed to the battons or planks. In government buildings G.I. sheets are used as roofing material instead of the traditional slates.

A *puja* is held while laying the foundation stone and offering of a goat or sheep is made. A goat or sheep is again sacrificed when the ridge pole of the roof is laid and some portion of the meat is tied to it to ward off evil spirits. When the construction is complete, a ceremony called *pratishta* is held and god Shiva is propitiated by *puja*. A feast is thrown to all the relatives. The carpenter and the labourers also participate in the feast and *gur* is distributed among all present.

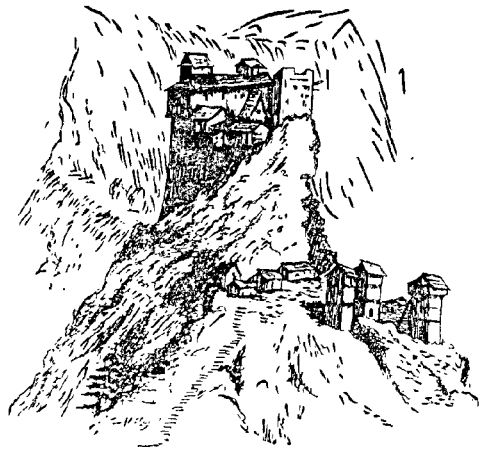
There are in all 146 households with a population of 720 persons and the total number of rooms in the village available for this population is 268. Thus on an average, a room is shared by two to three persons. Of these 146 households, 80 households with 277 members have one living room for each household whereas 40 households with 246 members have 2 rooms each. There are only 12 households with 91 members having 3 rooms each. The number of households having more than 3 rooms each is very small. Only 7 households have 4 rooms each and 3 households have 5 rooms each. There are only 4 such households who have 5 or more than 5 rooms each.

Changes: The building activities in Brahmaur have been rather slack. Only about 11 new houses were constructed in the post independence period.

During the course of investigation, three houses of the villagers were under construction. In them cement was being used. Windows with iron bars were being provided. Doors of bigger dimensions were being fixed. The insides of the new houses were white washed and ceilings provided.

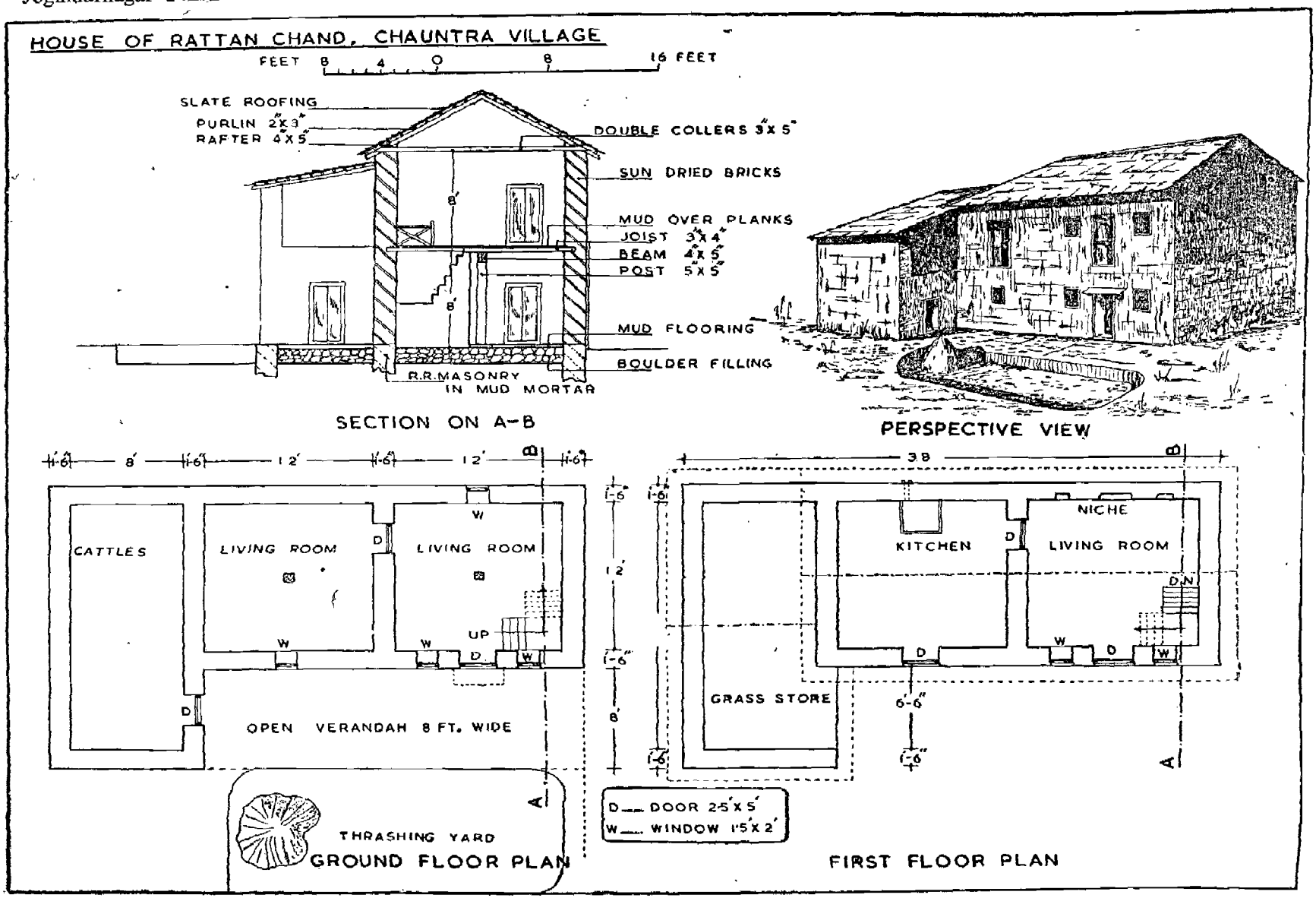
The interior of the old houses in general is dark and dingy as enough light is not admitted through the *tohlus* and small doors. White washing is seldom done and the soot emitted from the hearth keeps on depositing on the walls. It is only on festive occasions that the walls are given a new mud and cowdung coating. The floors are of course, swept daily. The walls are occasionally decorated with cheap printed pictures and calendars. The entrance is embellished with floral designs, done with *geru*.

At the time of investigation, the offices of the Block Development Officer and the Tehsil building were under construction. These buildings were not being constructed according to the orthodox pattern. Villagers were critical of these buildings. They felt that the new building fashions were bound to be unsuitable there due to the peculiar terrain of the area. Also there was a feeling that slates ought to have been used and not G.I. sheets for roofing.



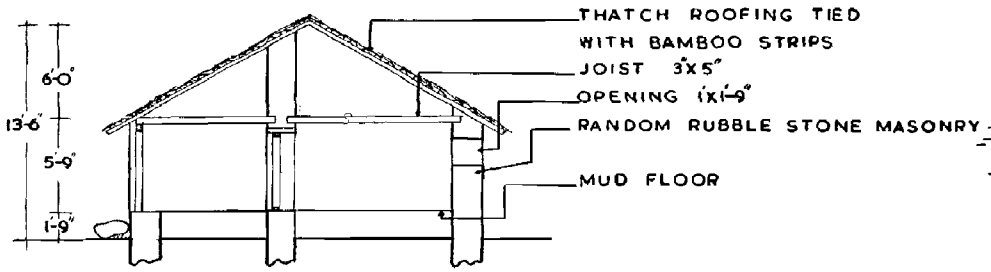
Rural House Types—Line Drawings including Ground Plans and Elevations—Mandi District

Serial No.	Tehsil/Sub-Tehsil	Village (Hadbast No.)	Owner of house/caste	Main building material used in construction of house	Availability of material	Year of construction declared by owner	Approximate cost when constructed according to owner	Rooms and their uses
1	2	3	4	5	6	7	8	9
							Rs.	
1	Jogindarnagar Tehsi	Chauntra (H. B. No. 41)	Rattan Chand (Scheduled Caste)	1. Wall—Sun dried bricks 2. Roof—Slates	Main material available locally	1962	6,000·00	1. Ground floor—Two living rooms and one cattle shed 2. First floor—One kitchen, one living room and one grass store
2	Mandi Sadar Tehsil	Kangru (H.B. No. 45)	Mangsaru (Scheduled Caste)	1. Wall—R. R. stone masonry 2. Roof—Thatch	Main material available locally	1940	300·00	One living room, one kitchen-cum-living room and improvised cowshed
3	Sarkaghat Tehsil	Kot (H.B. No. 21)	Thali Ram (Rajput)	1. Wall—R. R. stone masonry upto plinth and mud wall above plinth 2. Roof—Slates	Main material available locally	1950	4,000 00	1. Ground floor—One cattle shed, one kitchen and two living rooms 2. First floor—Three living rooms and one grass store
4	Chichot Tehsil	Galu (H.B. No. 122)	Mangsaru (Scheduled Caste)	1. Wall—R. R. stone masonry 2. Roof—Thatch	Main material available locally	Not known to the present owner		1. Ground floor—Cattle shed 2. First floor—One room used as kitchen-cum-living room
5	Sundarnagar Tehsil	Chahmbi (H.B. No. 19)	Phogal Ram (Scheduled Caste)	1. Wall—R. R. stone masonry in ground floor and sun dried bricks in first floor 2. Roof—Slates	1. Wall material available locally 2. Slates brought from a distance of about 7 miles	1940	10,000·00	1. Ground floor—One store and one living room 2. First floor—One living room and a kitchen
6	Karsog Tehsil	Karsog (H.B. No. 85)	Mangat Ram (Vohra)	1. Wall—R. R. stone masonry 2. Roof—Slates	Main material available locally	1880	5,000·00	1. Ground floor—Nine rooms 2. First floor—Nine rooms

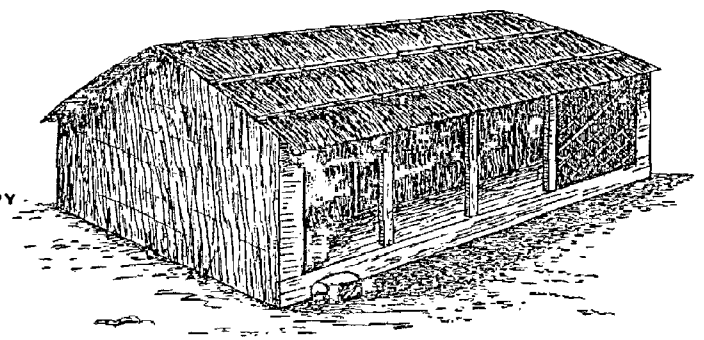

HOUSE OF RATTAN CHAND, CHAUNTRA VILLAGE
FEET 8 4 0 8 16 FEET
SLATE ROOFING
PURLIN 2"X3"
RAFTER 4"X5"
DOUBLE COLLERS 3"X5"
SUN DRIED BRICKS
MUD OVER PLANKS
JOIST 3"X4"
BEAM 4"X5"
POST 5"X5"
MUD FLOORING
BOULDER FILLING
R.R.MASONRY IN MUD MORTAR
8'
8'
SECTION ON A-B
PERSPECTIVE VIEW
1'-6" 8' 1'-6" 12' 1'-6" 12' 1'-6"
B
CATTLES
LIVING ROOM
LIVING ROOM
D
W
UP
OPEN VERANDAH 8 FT. WIDE
THRASHING YARD
A
GROUND FLOOR PLAN
38
B
1'-6"
12'
1'-6"
8'
1'-6"
KITCHEN
NICHE
LIVING ROOM
DN
GRASS STORE
6'-6"
1'-6"
A
D— DOOR 2·5'X5'
W— WINDOW 1·5'X2'
FIRST FLOOR PLAN

HOUSE OF MANGSARU, KANGRU VILLAGE

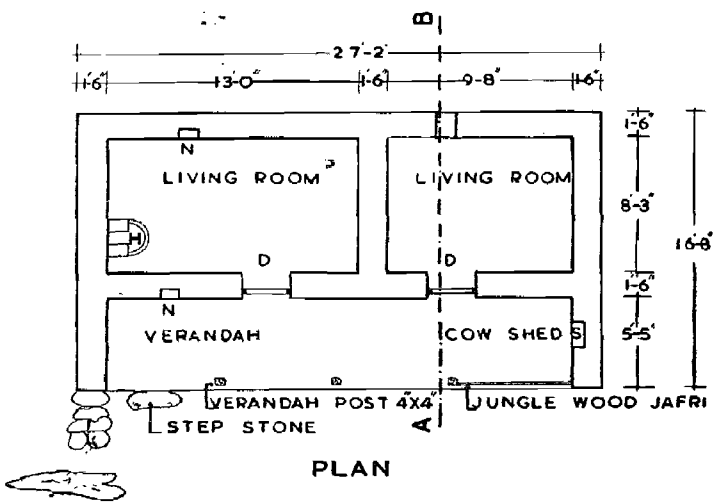
FEET 8 4 0 8 16 FEET



SECTION ON A-B

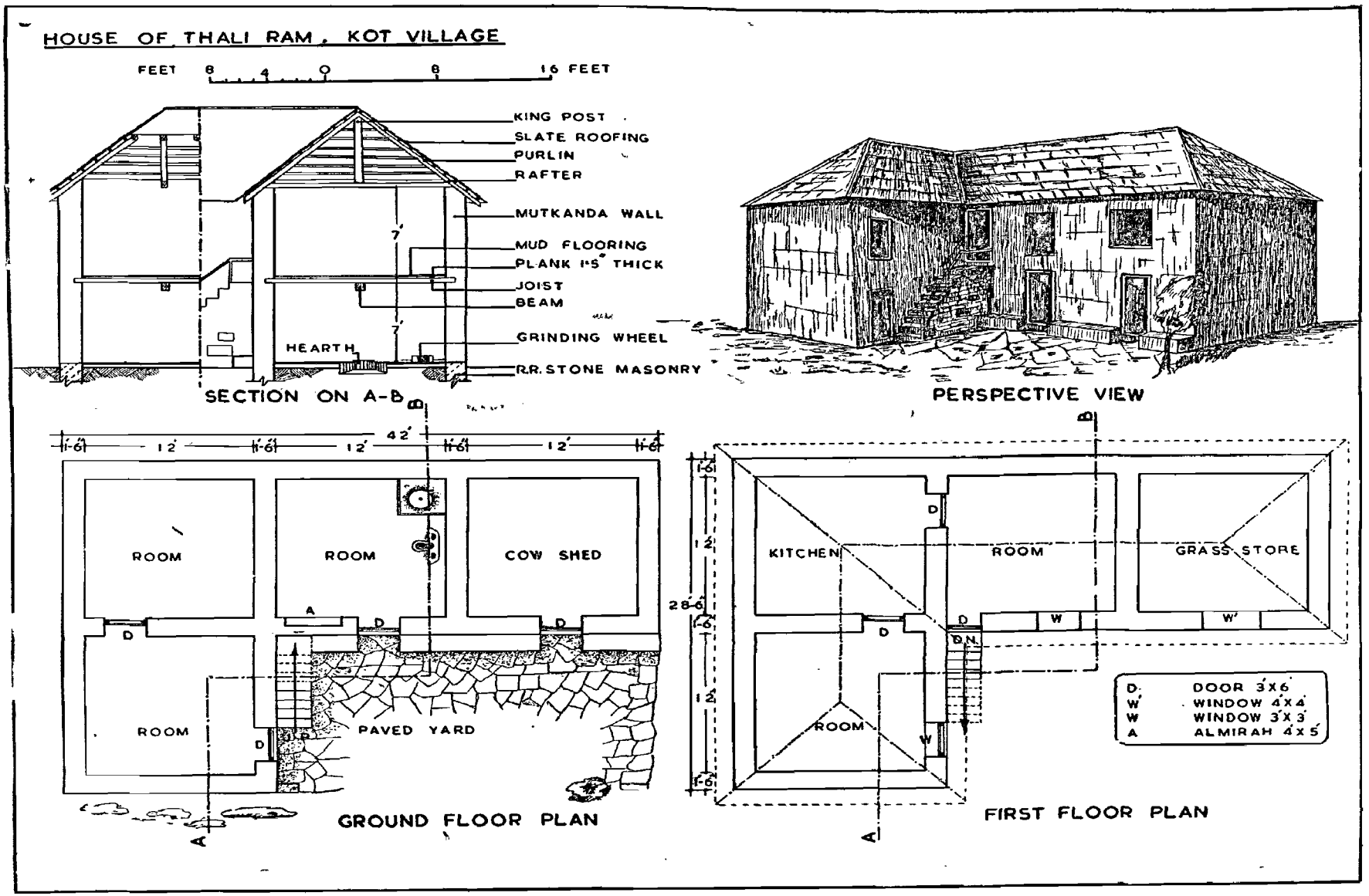


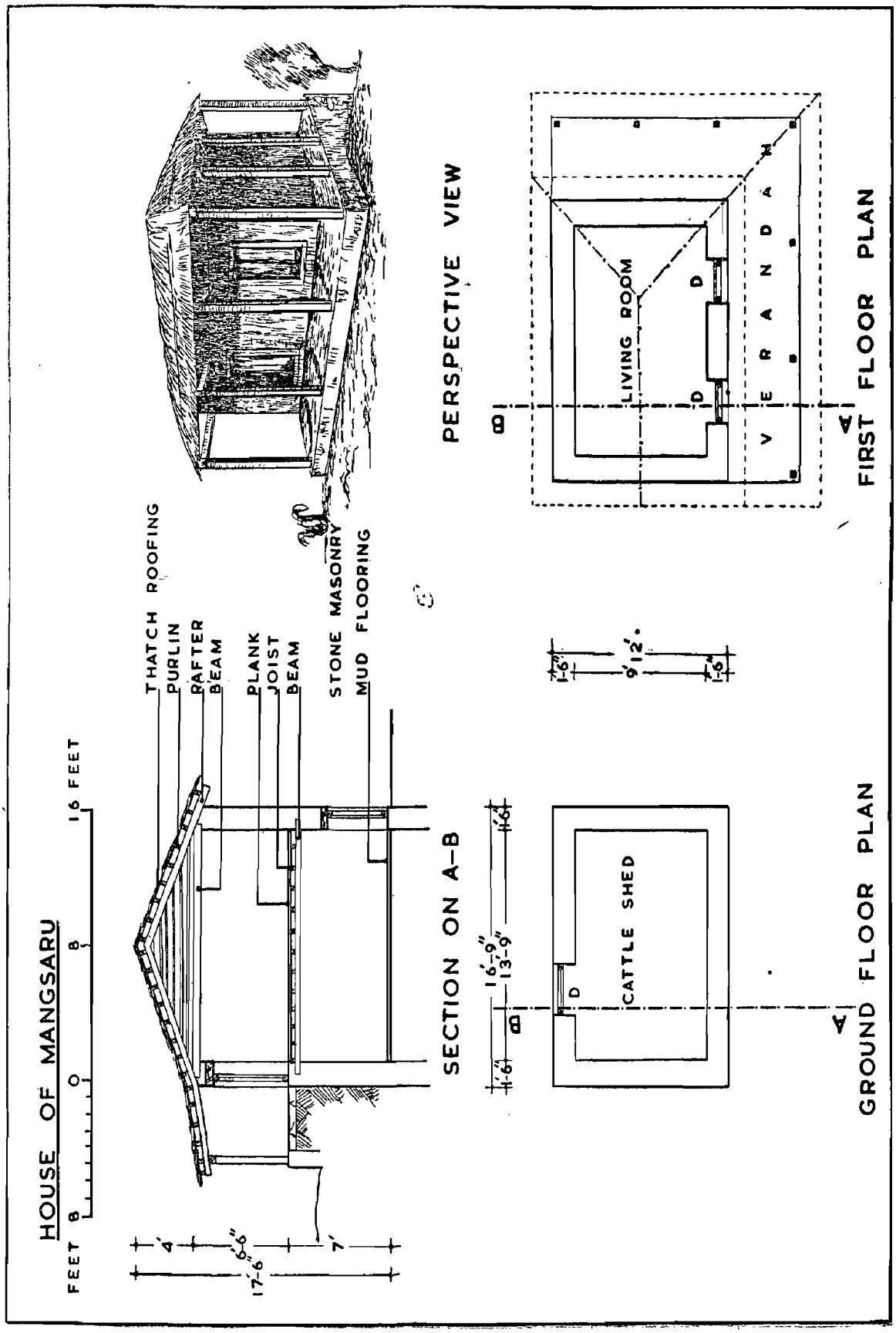
PERSPECTIVE VIEW



PLAN

D.....DOOR 2'-6"X4'-9"
N.....NICHE 1'-0"X1'-0"
H.....HEARTH
S.....SHELF

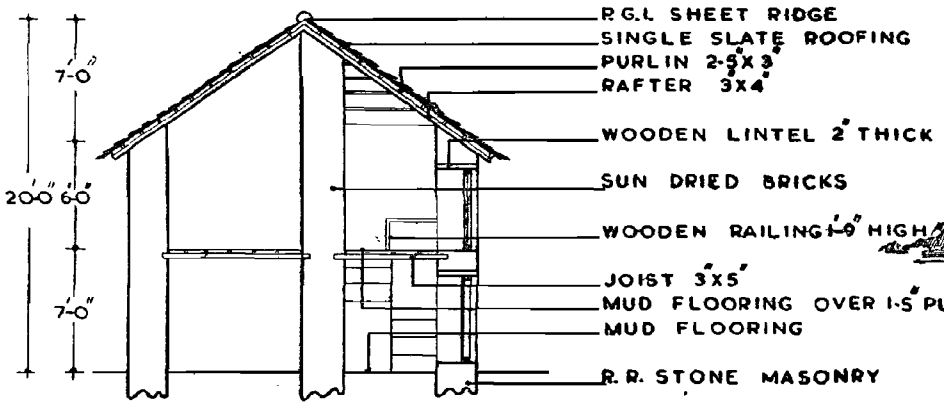

HOUSE OF THALI RAM, KOT VILLAGE
FEET 8 4 0 8 16 FEET
KING POST
SLATE ROOFING
PURLIN
RAFTER
MUTKANDA WALL
MUD FLOORING
PLANK 1·5" THICK
JOIST
BEAM
GRINDING WHEEL
R.R. STONE MASONRY
HEARTH
7'
7'
SECTION ON A-B
PERSPECTIVE VIEW
42'
1'-6"
12'
1'-6"
12'
1'-6"
12'
1'-6"
ROOM
ROOM
COW SHED
ROOM
PAVED YARD
D
A
B
GROUND FLOOR PLAN
28'-6"
KITCHEN
ROOM
GRASS STORE
ROOM
W
D, N
D DOOR 3'X6'
W WINDOW 4'X4'
W WINDOW 3'X3'
A ALMIRAH 4'X5'
FIRST FLOOR PLAN



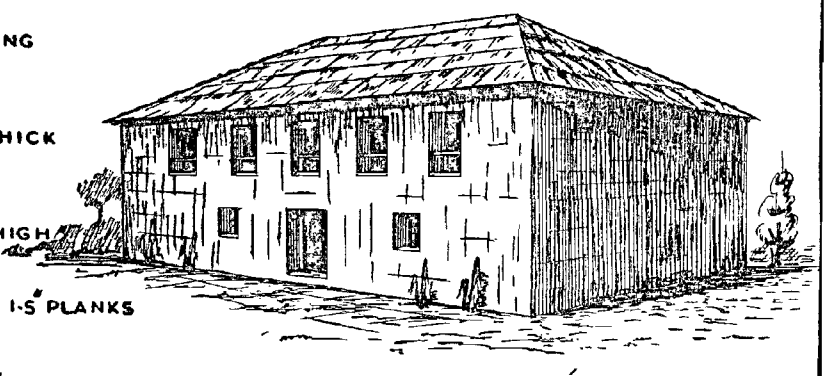
Sarkaghat Tehsil

HOUSE OF PHOGAL RAM, CHAHNBI VILLAGE

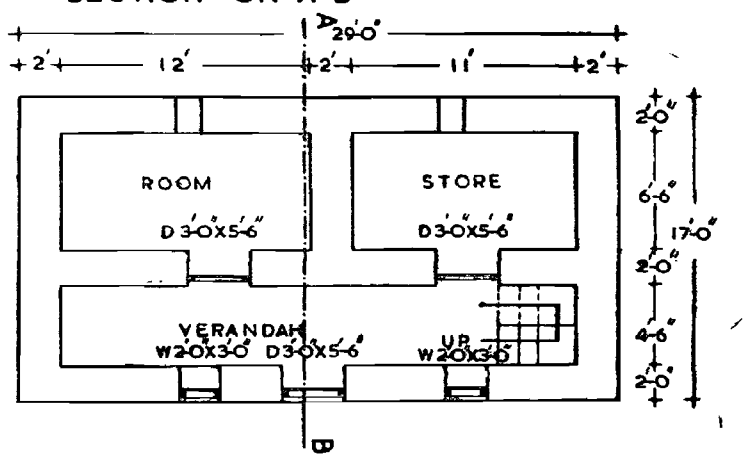
FEET 8 4 0 8 16 FEET



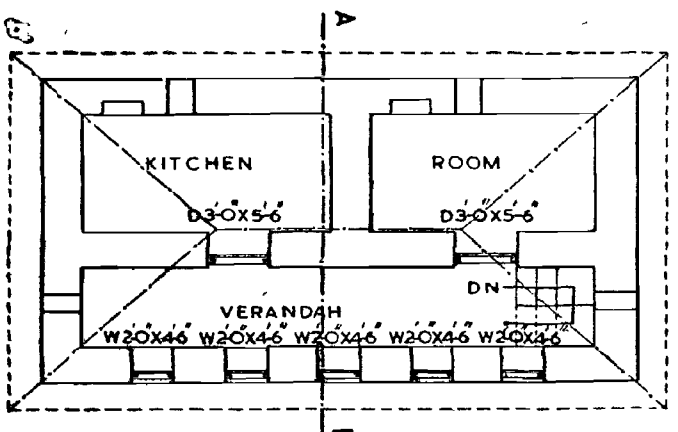
SECTION ON A-B



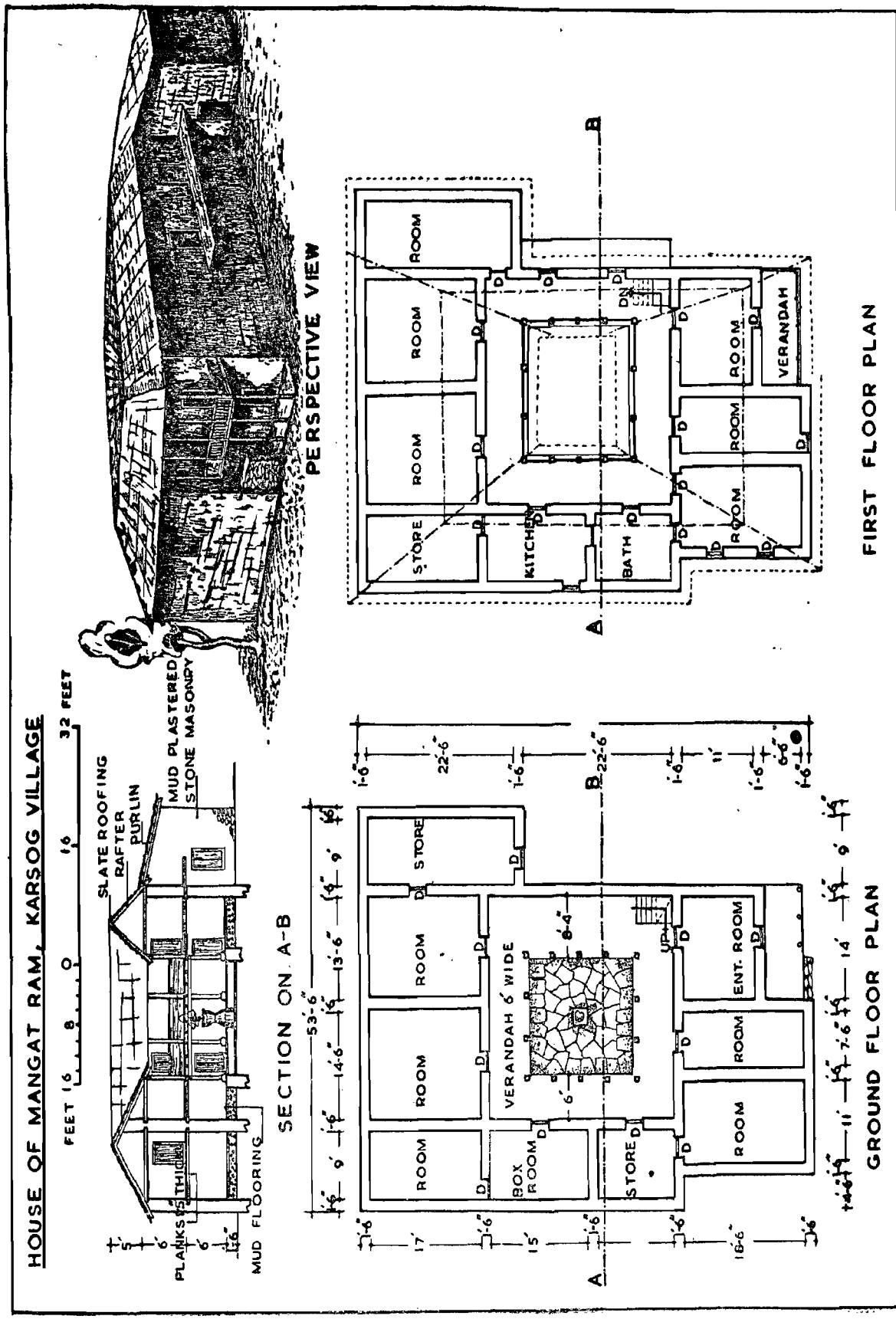
PERSPECTIVE VIEW



GROUND FLOOR PLAN



FIRST FLOOR PLAN


HOUSE OF MANGAT RAM, KARSOG VILLAGE
Karsog Tehsil
PERSPECTIVE VIEW
SECTION ON A-B
SLATE ROOFING
RAFTER
PURLIN
MUD PLASTERED
STONE MASONRY
PLANKS
MUD FLOORING
FEET 16 8 0 16 32 FEET
GROUND FLOOR PLAN
FIRST FLOOR PLAN
ROOM
STORE
KITCHEN
BATH
VERANDAH
VERANDAH 6' WIDE
BOX ROOM
ENT. ROOM
UP
DN
A
B

MANDI DISTRICT

Extracts and Reprints

PUNJAB GAZETTEERS, MANDI STATE, 1920, PAGES 18-19, 78-79

Archaeology-Normal Style of Architecture (Temples): "Of the ancient temples of Mandi town, it may be said in general that the architecture is good. They are chiefly in stone and in the style of *Sikhara* temples of the plains. They consist of a cella, surmounted by a spire and a porch usually decorated with carvings. The spire is of the usual type. In sanctuaries of a comparatively later time, however, it assumes the form of a dome, in consequence of which they appear more like mosques than Hindu temples. The larger and more important temples are also furnished with an anteroom or *mandap*. The particular feature which distinguishes them from the temples of the adjoining States is the trefoil arch which generally decorates the facade or porch. It chiefly rests on the capital of the pillars or pilasters supporting the arch which are usually fluted. The brackets are often shaped as human figurines, seated on the head of an elephant and holding the trunk in their hands. The corners are sometimes ornamented with the figures of celestial musicians or *gandharvas*, and the whole combination produces a very pleasing effect.

* * * *

Types of Villages: In the upper hills except in the outlying *dogris*, the houses are tightly packed together on a site chosen either for its proximity to water or because of its negligible value as arable land. Villages are rarely built on land capable of cultivation. Many are situated on rocky spurs above the main cultivation, and, where the site available is insufficient to allow of extension as the population increases, the individual peasant builds a second house on a worthless plot of land as close of his fields as possible. There is no sanitation, and the care with which manure is preserved adds to the dirt and smell of the habitations. But the hillman is very particular about segregating the villagers of low caste, who are required to live either below the main site, or at a considerable distance on either side of it. The house of the average hill Kanet is substantially built and reasonably commodious, although the number of storeys is usually less than in the Upper Sutlej Valley. It is built mainly of timber, but the outer walls consist of dry masonry interspaced with massive beams at narrow intervals. Wherever procurable, deodar is used; but the Forest Department has now placed restrictions on its free employment although it still furnishes timber of this kind for the doors and windows whenever possible. The roof is either slated or of shingles, and most houses contain a balcony on the third storey which in case of need can be divided off into living compartments. The ground floor is given up to the cattle and sometimes the sheep and goats are housed above these again. A granary is found in the houses of the well-to-do, and, owing to the late dates at which the spring crops are harvested, sufficient accommodation either in the form of balconies or small sheds has to be provided for the storage of the unthreshed wheat or barley. For the same reason, the threshing floor adjoins the dwelling and is flagged, thus enabling the husbandman to take prompt advantage of even a short break in the rains.

In the lower portions of the State the villages are more scattered and the accommodation of the individual landholder less compact. Many of the houses are single-storey and it is unusual to see any of more than two storeys. The cattle sheds are separate from the main block and the threshing floors are usually outside the courtyard, being often made from year to year at suitable places in the fields. Slate roofs are growing in popularity, but the poorer classes have still to depend on thatch. In the Western and Harabagh Circles, where the forests are not abundant, timber is used sparingly, but that available is put to the most economical use. The walls are either of mud or of unbaked bricks, only the prosperous being able to afford dry masonry. They are newly plastered inside and out at least once during the year, and are often decorated with rough designs of men and animals. Generally, the lower villages with the scattered

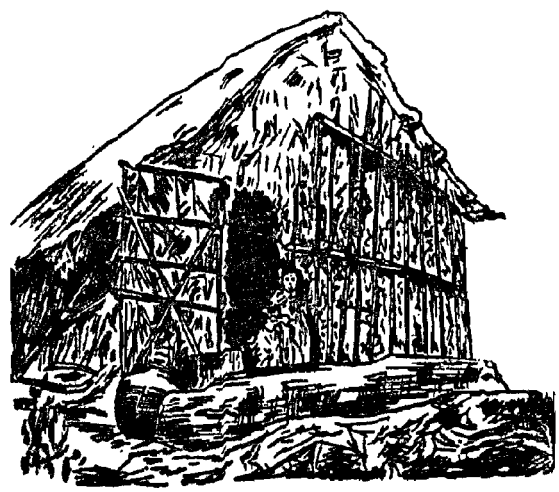
farm houses standing on their own lands present a picture of neatness and prosperity which the more substantial structures of the hills fail to convey."

HISTORY OF THE PUNJAB HILL STATES, VOULME II, BY J. HUTCHISON, L.R.C.P. & S.E., J. PH. VOGEL, PH.D.

"The palace at Mandi is a long barrack-like, but not unpicturesque, building with whitened walls, gable ends and slated roofs. Before it is a large oak, and on the west of it is a garden in which the Raja had pitched a tent for me. The walks, as is the case generally in the east, were straight, and raised above the surface of the borders so that they could not be injured by the system of irrigation which is universally practised. The borders themselves were covered with but one mass of orange, shaddock, and citron trees which were loaded with a profusion of fruit. The bazar is large and well stocked for so insignificant a place. A large proportion of the town is on the opposite side of the Beyas, and accessible by a large ferry-boat. The river passes the town from east to west and immediately turns due north, and continues in the same direction for about four miles, which is singular, considering how near it is to its debouchure on the plains. It is very deep at Mandi, and flights of steps, or ghats, Hindu images and a large figure of the monkey god, Huniman, have been sculptured on the rock by the river-side, and Thakurdevaras or Hindu temples, are conspicuous in different places of the town".

A GAZETTEER OF THE SUKET STATE, 1927, PAGE 46

Types of Villages: "In making a selection of a site of a house the people have very great regard to its proximity to water and to the forest from which they can get fuel. Houses are generally situated on rocky spurs above the cultivation or on worthless patches of cultivated land. The houses have low roofs with no ventilation. The manure collected close to the houses adds to the dirt and smell of the habitations. Cattle, sheep and goats are housed in the ground floor, but where the house has only one storey a separate shed close to the house is provided for them. Grain is also kept in the lower storey. The houses are mainly built of timber and their walls of dry masonry. The roofs are either slated or of grass."



Thatched Hut

Notes on House Types and Residential Pattern of Villages

CHAUNTRA VILLAGE, JOGINDARNAGAR TEHSIL

Residential Pattern: The village has three settlements, the upper Chauntra, the lower Chauntra and the tea estate settlement in between them. The Pathankot-Mandi-Kulu motor road passes by the upper Chauntra. The Pathankot-Kangra-Jogindarnagar railway line passes through the lower Chauntra. The nearest railway station for the village is Ahju.

The bulk of the population of the village resides in the lower Chauntra. The village is inhabited by Suds, Khatris, *Kolis, Bhanjre, Tarkhans (Thavis), Darjis, Julahe, Chamars,* Rajputs and Brahmins.

House Types: The pattern of construction of the houses is more or less the same as in Kangra District. The houses are double storeyed with front verandahs in both the floors, The village lies in an open and spacious valley and there is no dirth of land for constructing houses. Every house has a spacious court-yard. Many of the houses are surrounded by fields or by kitchen gardens. The Suds are considered to be better off. They have *chawki* type houses with shops in one of the wings facing the village street. Other houses have a 'L' or 'U' shaped lay-out. Such houses belong to the villagers having average means, these are mostly Brahmins, Rajputs and a few of scheduled castes. There are also modest houses with rectangular lay-out. For keeping the cattle, the villagers have separate cow-sheds. The cow-sheds are small huts with thatched roofs.

Sites are preferred near the fields where water is available. The soil being sandy, loam and porous, the foundation has to be dug deep. The depth varies from 4 to 5 feet. The foundation is not dug further, if a hard layer or rock is sometimes struck at a lower depth. The width of the foundation varies from 2 to 2½ feet. After digging the foundation the bed is watered and rammed thoroughly. This brings compactness and evenness. Then upto 9 inches to one foot thickness the foundation is filled with stones. These stones are available from Bajgar Khad and other nullahs nearby. The layer of stones is rammed thoroughly. The foundation is sometimes dug before rains and kept open to the weather for the entire season. This secures firmness to the foundation. On an auspicious day, foundation stone is laid and then the shaping of the structure starts. The thickness of the wall upto the ground level and sometimes upto plinth level is kept the same as the width of foundation. But now, masonry work in the foundation in off-sets is being preferred. This system is economical and facilitates the structural work. The plinth level varies from 9 inches to 18 inches. When the masonry work upto the plinth level is complete, the room portions in between four walls is filled up with flints, and pieces of stones to bring the surface in level with the walls which have already been raised upto plinth level. Then door frames are placed wherever necessary. Placing of the frame of main door is marked with minor rituals. A red *mauli* is tied to the frame and *gur* is distributed among the workers. The mason, incharge of the construction gets a turban and money depending upon the means of the owner. The masonry work is continued after leaving gaps for the doors. When the walls are raised upto window level, the window frames are placed. One window suffices for each room. At various stages of the wall construction, care is taken to provide small openings and niches. The villagers find it difficult to get structural stone. This is found in a limited quantity. They use sun-dried bricks extensively. The stones are used for construction of outer walls of the ground floor. For the inner walls in both the floors and the outer walls of the 1st floor, bricks are used. The villagers make these bricks themselves Thickness of the outer walls is 1½ feet. The interior walls are sometimes of single brick width.

When the construction is complete upto the second storey floor level a *shateer* is placed across each room on the shorter span. This is followed by placing joists or bamboo *karian* over the *shateer*. Unlike other hill villages, the height of the walls is not kept low in Chauntra. It varies from 7 to 8 feet in the ground floor and 6 to 7 feet in the first floor. Then starts the construction of four walls of the first floor. After fixing the door and window frames, these walls are raised upto the roof level. Postponing the construction operations in the interior of the house, roofing is taken up first. The houses in the village have pant style roofing. For roofing regular trusses are not provided. Instead, two rafters and a

beam between them are fixed. In many of the houses where thatched roofing is provided, for rafters bamboo poles are used instead of timber. One end of the rafter is fixed on the ridge pole with a notch. The other end rests on the wall end with sufficient projection towards gable end. On the rafters purlins are fixed. The spacing of the purlins varies according to the length and breadth of the slates to be used. The slates are nailed on purlins from gable end to ridge. To avoid leakage, lap of 2" to 3" is given at the joints. The slates used are procured from Kanhyara quarries near Dharamsala. Slates are also available at Jogindarnagar where they are transported from slate quarries in Mandi district. Ceiling is not generally provided.

The work in the interior of the house is then taken up. Floor in the ground storey is generally of mud. In the first floor both mud and wooden floorings are found. In the ground storey, the natural bed is watered and rammed with *durmat* thoroughly, so that it becomes firm and compact. Then the space is filled in with waste material and earth upto the plinth level. A thick coating of *gara*—mud mixed with cow-dung, is given, which when dried is followed by a fine cow-dung coating. Similarly walls are plastered with *gara* and cow-dung and then white washed with *makol*. Some time walls upto window height is coloured with *losti*.

Chawki Type: A *chawki* type house has a rectangular or square paved court-yard which is enclosed from three and in certain cases from all the four sides by double storeyed structure. All wings of the house have verandahs facing the court-yard. Entry to the house is through a room in the ground floor called *praur*. A stair-case at one corner leads to the 1st floor. Arrangement of the rooms in both the floors is the same. If the ground floor has 4 rooms, the 1st floor will have the same number of rooms of same length and breadth. In case there is no room in one of the wings of a house, that wing is called *naswar*. All the rooms of a *chawki* have separate doors opening on the verandah and may be inter-connected from inside. The verandah in the 1st floor has wooden railings. In such houses, there are separate kitchens mostly in the upper storey. The houses of L shaped lay out are of the same type with the difference that such houses have only two wings and entry to the house is direct through the verandah of the ground floor.

In a house with barrack-like layout, there are one to two rooms in the ground floor and only one big hall sort of room in the 1st floor. There can be two rooms in the 1st floor. The breadth of the rooms in ground floor varies between 12′ and 15′ and length between 15′ and 20′. Entrance to the house is through a verandah in the ground floor. Each room has a separate 5′×3′ door with a 2′×1½′ window. In some there are small round holes instead of proper windows. In one of the corners of a room in the ground floor, a stair-case is provided. It connects ground floor with the first floor. The inmates occupy the lower floor, the upper being used during the greater part of the year as lumber room or store room for grains. During the rains the upper room is used for cooking and in many cases as sleeping room also. There is no separate kitchen. The rooms are kept clean. The lower parts of inner walls are plastered with red or light coloured earth known as *losti*. The front space is kept tidy and clean, encircled by a hedge maintaining privacy.

The local names for the different parts of the house are:—

1. *Angan*	Court-yard or the portion of land facing the front of the house
2. *Bala*	Rafters
3. *Bharti*	Stones for filling in the foundation
4. *Bheen*	Ridge of the verandah in the ground flour
5. *Bhit*	Door
6. *Birang*	Wooden railing in the verandah of the first floor
7. *Chhanaur*	Thatch of the roof
8. *Chhaprur*	Gable end
9. *Chokathha*	Frames
10. *Dharwan chhat*	Gabled roof
11. *Dwari*	Window
12. *Dwar sakha*	Doorframes
13. *Gara*	Mud mortar
14. *Karyan*	Joists
15. *Lada*	Ridge pole
16. *Lakore*	Nitches
17. *Maidgi*	Mud plaster
18. *Naun*	Foundation
19. *Oata*	Verandah in the ground floor
20. *Obra*	Rooms in the ground floor
21. *Paura*	Verandah in the 1st floor
22. *Phare*	Wooden planks
23. *Praur*	A room in the ground floor, through which one enters the house
24. *Sangha*	Stair-case
25. *Thamb*	Posts
26. *Wan*	A big room in ground or first floor with no front wall

BIR VILLAGE, MANDI SADAR TEHSIL

Thirty six households live in Bir. The house construction is influenced by the availability of material locally, the physical aspects of the village and the prevalent traditions in the area. The houses, built in clusters, are generally single storeyed. The sizes and layout of houses vary according to the economic status and the requirements of the owners. We find four types of houses in the village. These are *chawki* type and houses with 'U' and 'L' shape layout. The fourth type is houses with single wing.

Chawki Type: These houses have four wings which enclose a spacious courtyard, Every wing has a verandah facing the court-yard. The entrance is in the middle or at one corner of a wing facing the village street. These houses have gabled roofs with one slope towards the outerside of the house and the other towards the courtyard. The courtyard is generally *pucca,* paved with thick slate or stone slabs. To drain away the water, an under floor out-let is provided at one corner of the courtyard. In these houses, every wing has two to three rooms of different sizes. All the rooms have separate entrances from the verandahs. The rooms may be inter-connected. In many cases, one or two wings of the house have no regular built rooms. Small square or round openings in the walls fitted with wooden bars serve as windows.

'U' Type Houses: These are a few in number. Such houses have three wings with a courtyard in between. Every wing has a verandah facing the court-yard. The approach to the house is from the open side. It is preferred to have the open side of the house towards the sunny aspect. Then privacy is the governing factor. To maintain it, the sunny aspect is ignored. Each wing of the house has two to three rooms. One of the wings may not have regular built in rooms. The roofing is gabled with hipped ends. Ventilation and windows are provided both in the back and front of a wing. The courtyard is semi-pucca. It is used for drying grains. The let-out for the drains is through the open side.

'L' Type Houses: These have two wings, one larger than the other. Each wing has a verandah towards the inner side facing a spacious court-yard. The court-yard is generally *kacha.* The larger wing has two to three rooms of different sizes. Approach to the house is through a verandah. To maintain privacy, the houses do not face the streets. Roofing is gabled with hipped ends

Houses with Single Wing : These are few. Such a house may have two to three rooms with a verandah and a courtyard in front. To maintain privacy, the back of the house faces the village street.

Construction: The villagers possess limited land. Efforts are made to waste minimum land for purposes other than agriculture. The houses have, therefore, been constructed in clusters on rocky surfaces which are of minimum use for agriculture. The foundations are not dug deep. The depth varies between one and a half feet to two and a half feet. The width is kept one and a half feet. Before digging the foundation, a formal *puja* is held at the site. Base is of the foundations filled in with stones which are available in the nullahs nearby. In case, hard surface is struck in the foundation, filling is avoided. The foundation is generally dug before the rains, and kept open for sufficiently long.

For laying the foundation stone, an auspicious day is fixed by the *purohit* in the months of Asvina and Chaitra during Navratras. Asvina falls after the rains are over, and it is the best month for starting the construction work. On the fixed day *basti* ceremony is observed. A *havan* is performed. The foundation stone is worshipped with *kungu, mauli, drub* and flowers. *Gur* is distributed to all present. After this, the raising of the foundation starts with masonry work. The stones used are of random shape and size. Mud mortar is extensively used for masonry work. The clay found in the village is of good quality for construction work. The thickness of walls upto the plinth level is the same as of the base of the foundation. The off-set system is not in vogue. The plinth level is kept upto the level of the verandah. It varies from one and a half feet to two feet. After the completion of the walls upto this level, the portions in between the walls are filled with flints, irregular pieces of stones and clay. This brings the floor in level with the walls upto plinth level. The floor is then rammed thoroughly to ensure firmness.

Side by side, the carpenter goes on preparing the door and window frames. The section

of door and window frames is kept 3″ × 4″ Grooves or rebates for fixing the door shutters are not provided. These are fixed by means of pivots provided at the bottom and top corners of the door frames. In a few houses, newly constructed, hinged doors with panelled shutters are provided. The sizes of windows vary from house to house. The door size in old houses is 3′×4′. In new houses, the size is 3′ × 5′.

Door and window frames are fixed in the walls as construction proceeds. Niches are also left. The height of the walls varies from 5 to 7 feet. The outer edge of the verandah is paved with flat thick stones. Corbel stones serving as base for verandah posts are fixed at required spacings. Corbel stone is generally 9″ × 9″× 9″ in size. It is dressed in an ornamental fashion. Posts are fixed in holes made for the purpose in corbel stones.

Two opposite side walls are raised for laying gabled roof. At the top a ridge pole is placed. Then the rafters are placed with one end resting on the ridge pole and the other on the walls. Purlins are fixed cross-wise on the rafters with the ends resting on the battered walls. For rafters and purlins, both bamboo and timber are used. Slates are fixed on purlins, from the gable end to the ridge. At the ridge the slates overlap. The houses in the village are generally without ceiling.

After the roofing, work in the interior of the house is taken up. Both sides of the walls are plastered with thick layer of clay mixed with cow-dung. When dry, white washing with *makol* is done. In a few houses, *loshti* is applied in the lower portion of walls in the interior.

Mandla and Kyari: In the houses of Rajputs, a *mandla* is provided in the centre of the court-yard. *Mandla* is a big piece of stone, chiselled into three stepped shape all around. Its top is flat with a square surface. An image of God Ganesha is carved in it. *Mandla* is worshipped daily by a married woman in the morning. A few houses have *kyari*. It is a stone structure of about $1\frac{1}{2}' \times 1\frac{1}{2}' \times 4'$ size. Its top surface is used as bed for growing *tulsi* plants. *Kyari* and *mandla* have religious sanctity. These are not found in the houses belonging to *Chamars* and *Hessis*.

The villagers cover verandah with bamboo mats. This covered portion is used for kitchen. Every house has a thatched cow shed adjacent to it. Its walls are either *matkandha* type or made of bamboo mats. In a few houses there are *matkandha* walls instead of stone walls.

Matkandha Walls: For constructing *matkandha* walls, clay, straws and some small pebbles mixed with water are used. These walls are constructed above the plinth level. Two or three frames of wooden planks are prepared. One frame is fixed with temporary supports where the wall is to be constructed. After this wet mixture of clay, small pebbles and straw is filled in the hollow of the frame and rammed thoroughly with wooden beaters. This is then left to dry and in the meantime other portion of the wall is taken up. This process continues till the wall reaches the desired height.

Housing Material : Clay, stones, timber, bamboo and slates form the main material for the construction of house. Villagers help one another in collection of building material. Clay and stones are available in sufficient quantity nearby the village. The stone they use is of inferior type, though better stone is available within a radius of 5 miles. Bamboo is available in the village. A few villagers have bamboo trees in their own fields. Others purchase it at the rate of Re. 1.00 per pole. For timber, the villagers make use of the trees grown in their own fields. They have *bartandari* rights in Gandhiru Forest which is at a distance of about 2 miles. The required number of trees are sanctioned by the Forest Department on the recommendation of Gram Panchayat. The slates used are coarse, thick and of irregular shape. These are available locally in a quarry at a distance of about five miles. In few houses fine slates have been used. These are fetched from Mandi. Carriage charges come to Rs. 12.00 to Rs. 15.00 per hundred from Mandi. The rates of sale for slates at Mandi are:—

Size	Rates
8″×16″ . . .	Rs. 16·00 per hundred
9″×10″ . . .	Rs. 18·00 per hundred
10″×20″ . . .	Rs. 20·00 per hundred

The slates used in the village are generally of 10″×20″ size.

The table below gives break-up of house-holds (H.H.) by number of rooms and by number of persons.

Total No. of H. H.	Total No. of rooms	Total No. of family members	H. H. with one room		H. H. with two rooms		H. H. with three rooms		H. H. with four rooms		H. H. with five and more rooms	
			No. of H.H.	Total No. of family members	No. of H.H.	Total No. of family members	No. of H.H.	Total No. of family members	No. of H.H.	Total No. of family members	No. of H.H.	Total No. of family members
1	2	3	4	5	6	7	8	9	10	11	12	13
Chamar—(14)	21	133	9	62	4	51	..	..	1	20	..	..
Hessi —(2) . .	2	13	2	13	..	..	..	..	..	..	..	..
Rajput (20) . .	61	155	2	4	8	43	2	20	5	57	3	31
Total .	84	301	13	79	12	94	2	20	6	77	3	31

The total population of the village is 301 persons. They possess 84 rooms. Each room is thus shared by 3.6 persons. 133 *Chamars* have 21 rooms. Thereby each room is shared by 6.3 *Chamars*. 13 *Hessis* have two rooms. Thus the *average* comes to 6.5 *Hessis* per room. Similarly 155 Rajputs possess 61 rooms and the average comes to 2.54 Rajputs occupying one room. From these figures it is clear that the *Chamar* and *Hessis* are in worst plight.

Local names for the various parts of the house and material used for construction

Angan . . Courtyard

Bharti . . . Filling

Bhind . . . Plinth level

Chakka . . . Slates

Dara . . . Random stones

Dhehar . . . Sill

Dwar Sakka . . Door frames

Gara . . . Mortar

Gawain . . . Co-shed

Jirde . . . Bamboo matting

Kandhi . . . Wall

Kainchi . . . Truss

Laatha . . . Ridge pole

Kari . . . Purlin

Kursi . . . Corbel stone

Newn . . . Foundation

Obra . . . Small side room

Ota . . . Verandah

Palre . . . Door shutters

Pair-swan . . Steps

Raak . . . Thick flat stones

Ratha . . . Stone layer

Shangar . . . Door chairs

Takki . . . Window

Thamb . . . Verandah poles

Teer . . . Niche

RIWALSAR VILLAGE, MANDI SADAR TEHSIL

Residential Pattern: There live 102 households in village Riwalsar, and its two hamlets Doh and Hawani. The village is situated along-side the banks of Riwalsar lake, the hamlet Hawani on the Riwalsar-Mandi Road, and the hamlet Doh on a ridge above the beautiful lake. There are 223 houses in these three places. Barring a few houses of Mahajans who are shopkeepers, other houses are designed on the traditional pattern which is centuries old. The houses of the Mahajans are pucca-built and well ventilated. Six houses of Lahaulas are also pucca-built, double storeyed modern structures, located in Riwalsar.

The *Lohars, Chhimbas,* Mahajans and *Lahaulas* live in Riwalsar. The Brahmans and Rajputs live in Doh and Hawani. On the west bank of the lake, there is a bazar, with houses used as shop-cum-dwellings. On the eastern side of the lake there are residential houses and the Primary school. In the hamlets of Doh and Hawani houses have been built here and there. Doh hamlet is dominated by the Brahman community. All the Government buildings are located in Riwalsar village. The veterinary dispensary and the weaving and spinning centres are in the Riwalsar bazar, housed in rented buildings. The Panchayat Ghar which is being constructed as a pucca structure is on the southern side of the lake. Higher secondary school is on the western side of the lake. Right around the lake is a fence and alongside it there runs a circular road, generally called the *prakarma* road.

House Types: Houses are generally double storeyed. A verandah is attached to the upper storey facing the sunny aspect. In three storeyed buildings verandahs are in the top most floors. The verandahs have lean-to-on slate roofs and the rooms have a set pattern of slate roofing, which are gabled or pant style. The number of living rooms vary according to the means and requirement of the owner.

There are no standard specifications which are followed in respect of the room size. Availability of building space and the requirement decide the length and breadth of the room. However, the general size is 8′×10′ with a height of 8 feet. A room may have one or two doors.

Leaving aside the houses situated in the bazar most of the other houses have courtyard in front of them. These are utilized mostly for tethering the cattle. By many households cowsheds are built adjacent to or quite near the houses. These sheds are called *gawain* in the village.

There is no practice of having separate baths and kitchens although in the case of big and commodious houses one room is set apart for cooking purposes. Round holes chiselled out in the slate slabs on the roof provide outlets for smoke. One corner of the same room is used for taking bath during winter, whereas, bath is taken in the open during summer. Whenever women take bath a temporary screen is put up with the help of cots just in front of the corner.

In the new houses a touch of modern influence is quite discernible. Iron handles, nails, bolts, screws, paints, varnishes and window glasses have been used. They are obtained from local shopkeepers who import these things either from Mandi or direct from other important markets of Punjab. The use of cement has also been made in new buildings.

Construction: After the site has been selected, attention is paid to its levelling due to hilly terrain. The task involves much labour and expense. Foundations are dug to a depth of about 3′ and about 2½′ wide. Upto a foot or so dry stones are filled up in the bed of the foundation and rammed down. Stone masonry is done in off sets up to the plinth level. The plinth level is kept low, as the village is situated in hills and as such is free from the capillary action of water rising above the plinth level.

The principal building materials stones, mud, timber, bamboo and slates are available locally. Stones are available in plenty either in the fields or at places nearby. For quarrying slates, prior permission of the forest authorities is obtained. On an average, slates cost from Rs. 20.00 to Rs. 30.00 per hundred.

The timber of chil and deodar is used and for its supply the villagers depend upon the forests of Kaldoh. The villagers are *bartandars* or right holders of these forests. Whenever they need timber they apply to the forest authorities through the Gram Panchayat. The people have a general complaint against the

forest authorities as they have to wait long before the requisite supply is assured.

Masons and carpenters are engaged from outside the village. The wood-work is done by the carpenters. They are paid at the rate of Rs. 4.00 to Rs. 5.00 a day, whereas, a mason is paid from Rs. 2.50 to Rs. 3.00 a day. An ordinary labourer is hired at Rs. 2.00 a day.

White-washing is done with *makol,* a type of clay, which is imported either from Mandi or purchased locally. Cow-dung mixed with clay is used for plastering the floor. White-washing is done generally on the eve of Baisakhi. The Mahajans get their houses and shops white-washed at the time of Dewali.

Temples and Shrines: The gurudwara, a popular Sikh shrine held in high esteem is just above the lake. It has on all sides lovely lawns and is approached by a long flight of steps. The domes and minarets have been built up in the typical Sikh style of architecture. The shrine overlooks the lake. The shrine has attached to it a two roomed *dharamshala* which is used extensively by the pilgrims.

The most important religious shrine in the village is the Mani-phani temple, the famous Buddhist monastery. The design and architecture of the monastery is said to be similar to monastries found in Lahaul-Spiti and other places of Buddhist importance. It has the most artistic and colourful adornments and paintings. On the outer wall painted in harsh colours are protectors of the four regions, two on each side of the entrance. On the walls of the verandah there are two other frescoes, one representing the wheels of existence and the second a *lama* ascetic. In front of the temple hundreds of lamps of *ghee* are lit up daily. All around the walls of the monastery are fixed drum shaped prayer wheels called Mani-phani. The temple was re-built in the year 1935 at a cost of Rs. 36,000 which was raised from the public mostly on the eve of Shechu fair.

The other four temples, are pretty ancient as is apparent from the style and form of architecture. A low roofed primitive building on the bank of the lake is by common belief, said to be the temple of Lomas Rishi. Outside this stands the full-sized statue of *nandi* bull which is held in high esteem by the villagers. The other three temples are of Kali, Shivji and Lachhmi Narayan.

Rituals: Laying the foundation stone of a house is called *bastu lagana.* On an auspicious day, to be fixed by the priest, the man constructing the house comes to the house site in the morning accompanied by the mason and the priest. He brings with him a few blades of *doob* grass and a handful of *shakkar,* some flowers and vermillion placed in a *thali.* The priest recites *mantras* and places these articles on a big piece of stone which is laid afterwards in the foundation. The priest is given Rs. 1.25 by way of reward—*dakshna.* After the foundation stone has been laid, sweets are distributed amongst all present on the occasion. The main entrance of the house is kept facing east or north. When the house has been completed *pratistha* ceremony is performed before occupation of the house. *Havan* is performed and a garland of *peepal* leaves hung above the main door. Afterwards a feast is held to which all the villagers are invited. Sweet dishes and boiled rice are served to the guests.

Parts of the house

Angan	Courtyard
Bakhal	Slate roofing
Darwaza	Door
Dawal	Wall
Farsh	Floor
Gawain	Cattle-shed
Ghas-ka-Pur	Second storey
Karin	Thatched roof
Lokoli	Niches in the wall
Loidan	Small window
Obri	Ground floor
Sanglu	Latch
Taki	Window
Thamb	Pillers
Uan	A small side room

KOT VILLAGE, SARKAGHAT TEHSIL

Residential Pattern: The village has a scattered habitation roughly forming three groups of houses located on three hillocks. The habitations are inter-connected by several foot-paths.

The scheduled castes have constructed their houses slightly away from the Rajputs and Brahmins. The Rajputs and Brahmins live

in double-storeyed houses with slate roofs, and the scheduled-castes, excepting a few, have constructed single storeyed houses with thatched roofs.

Houses: The houses of the village may roughly be classified in two categories according to the material of the roof—slate or thatched. There is one house with G.I. sheets roof also. The houses having slates on their roofs are better built in every respect and are more commodious depending upon the economic standing of the owners.

The houses are all well ventilated. The floors of the rooms are made of mud. In a double storeyed house, passage to the upper storey is built by stairs. In some the stairs are from outside and in some others from inside the ground floors. Only a few houses have verandahs in them.

The cattle sheds, called *gohar*, are mostly built away from the houses, excepting in some double storeyed houses. In them, one room in the ground floor of a house is used as a cattle shed.

Building Material and Construction: A site is selected to build a house, generally nearer to the fields. When the site has been selected, the village *Pandit* is called. He gives the auspicious time and date of starting the work. On the fixed day he performs *havan*, in which the eldest member of the family participates. When the *havan* is over, the household distributes *halwa* among those who have assembled and the villagers. When all this is over, the construction work starts. The site is levelled, and the foundation is dug about three to four feet deep and filled with stones.

Maximum use of mud has been made in the construction of houses. In a large number of them, *bhitwali chinai*, i.e., *matkanda* walls, has been the mode of construction of walls, which are built about one and a half feet thick. For this two wooden planks, equal to the length of the wall, are fixed apart and the inner space is filled with wet mud. This mud is then beaten with wooden hammers and allowed to dry. A part of the wall has thus been built. These planks are removed and used again to build the upper portion of the wall likewise. In this way the entire wall is completed.

These days mud-bricks of size 12″×4″×3″ are used. To prepare these clay is collected, beaten and sieved. Then it is kneaded with water. Small pebbles are mixed. Finally, through a wooden mould bricks are cast. As is customary in this region, these bricks are not baked but are simply dried in the sun and used for constructing the walls.

Round stones, generally found in a riverbed, are available and used in walls. These stones are collected, chiselled to rectangular shapes and then used. The first one or two feet height of the walls above the ground level is built with stones. The walls above are built in mud or sun dried bricks. In some houses, the walls in the ground floor have all been built in stones.

In a double storeyed house, when the walls of the ground floor have been built up to the requisite room height, the floor/floors of the room/rooms in the storey above are laid. As there is scarcity of timber, bamboo strips are laid on the sparse joists instead of wooden planks. Over this about 2 inches thick layer of mud is set to form the floor. The construction of the upper storey proceeds further after this. The frames of doors and windows are set in position during the construction of walls.

The slates for roofing are brought from Kangra and Dharamsala, costing approximately Rs. 25.00 per hundred. This includes transportation charges. In the houses of the poor who cannot afford slates, thatched roofs are laid on bamboo strips.

For white-washing the houses, a type of greyish clay, which is sufficiently available in the village, is used.

Window-panes, varnishes, paints and other modern building materials have been used in some houses.

An auspicious day is fixed in consultation with the village *pandit* for occupation of the new house. On the appointed day *havan* is performed and *halwa* is distributed among the villagers. The *pandit* is paid Rs. 1.25 for his services.

Although it is the village mason, who constructs the houses, but the villagers help one another in providing unskilled labour. All villargers come to assist the owner in the house

construction. The owner in return serves them meals, tea and tobacco. The mason is paid Rs. 2.50 to Rs. 3.25 a day plus meals. Similarly, carpenters are paid like that.

Parts and apartments of a house in local terms

Ghar . . .	House
Bethak . . .	Drawing room/living room
Duar . . .	Door
Challa . . .	A place used for washing the utensils
Rosoie . . .	Kitchen
Gohar . . .	Cattle-shed
Okri . . .	Store-room

PANJAIN VILLAGE, CHICHOT TEHSIL

Residential Pattern: In the main *abadi* the houses are tightly grouped together on a site which the villagers selected because of its negligible value as arable land. The villagers do not build houses on a land capable of cultivation, they have their houses on the rocky spur near their fields. Besides the main *abadi*, there are small cluster of houses in Jugri and Mahnoo—sections of the village. Sanitary conditions in the village are far from satisfactory. Manure and dirt are heaped in front of the houses. *Harijans*, could build their houses only at a lower elevation to the houses of the *Swarns*. This is because of the old social taboo.

The Forest Department's rest house, Panchayatghar and a school building are located on the top of the hill above the village.

None of the houses (except one which faces north) faces north or south. This seems to have no scientific explanation and is only due to superstition.

The rooms have low ceilings about six feet high. Doors to the rooms are also low in height, normally about 4½ feet high and 4 feet wide.

The ground floor is used as cattle-shed and is called *khood*. In several houses *khoods* are partitioned, for keeping calves, sheep and goats separate from cows and bulls. A small door, about four feet square, is provided in the *khood* for entrance.

Ugal, the first floor, is used as store. No door is provided in this from outside and the entrance to it is through a trap door from the room or rooms in the second floor, to which it is connected by *sangah*, the wooden step-ladder. Light and air to *ugal* pass through one or two small holes in wall/walls, called *teera(s)*.

The floor above *ugal* is called *bourdi*. Outsiders can visit only the room/rooms in this floor, caste permitting. It is connected to the outside through a *sangah* or *seerhi* from the ground below, leading on to the verandah. *Seerhi* is a log with notches cut in it for steps. The room/rooms in the *bourdi* are spacious and have small *teeras* in the walls which serve as ventilators. A space is provided in the centre of a room for a hearth or *angeethi*. *Bourdi* is generally used for sitting and sleeping.

The top-most floor, called *churli*, is used as a kitchen and dining room. Some houses have the kitchen and dining room combined in one, while in others, the big room in the *churli* has a wooden partition and the dining room is separated.

There is nothing very different between the four and five or six storeyed houses, excepting that extra storey or storeys are constructed between *bourdi* and *churli*. In them the storey below the *churli* is called *bih*, very open from one side and used for sleeping during summer. Village deity, during festivals and *yajnas*, also stay in this *bih*. In the six storeyed house, the storey below *bih* is called *chhoti bourdi*, and provides spare sleeping accommodation. The storey/storeys above *bourdi* are approached or inter connected by *sangah* or *seerhi*.

A verandah, called *chauri*, is there in each storey above *ugal*. No latrine and bath room are provided. However, in a corner of a room in *bourdi* or in a portion of the *chauri*, slate stones are fixed on the floor to be used for taking bath.

Building Material: Timber is one of the materials which has been used extensively and justifiably so, as it is readily available in abundance in the deodar forest surrounding the village. It is used to provide frame-work to the wall structure, for roof trusses and rafters and for all the floors except in the ground storey, which has mud floor. Stone is used to give the body to the wooden frame-work of walls while slate is used for roofing.

Construction of a House: Recently M. Thakur has built a four-storeyed house on the conventional pattern. Before starting the actual construction, he approached the village deity for permission, which was obtained by a special method. He went to the oracle of the deity with three balls of cow-dung one of which had some rice inside it, the other had some flower petals, whereas the third had nothing. He also carried three small sticks, each some six inches long, two differently marked and the third one without any marking. The sticks marked were named *Guru* and *Vashisht* according to different marking on each. *Gur*, the oracle, then placed the cow-dung balls under a bronze plate and rotated them unobserved from above. Similarly, the sticks were also rotated. Then the *gur* paired, one ball from under the bronze plate with one stick from under the other plate, till three such pairs were formed and placed separately. The cow-dung ball paired with the stick of *Guru* was then opened and it happened to be the one with rice inside it which signified permission of the deity. Invariably, it is the ball paired with the stick marked and named as *Guru* that is opened. According to the villagers, the ball with rice meant the approval of the deity. If, on the other hand, there had been flower petals or nothing in side the ball, the former would have meant partial approval while the latter 'no' from the deity. Partial approval could, however, be set right by a *havan* and also sometimes, by sacrificing a goat.

After M. obtained the permission of the deity, he started making arrangements for collecting timber, stones and slates. The site for the house was, where he had his previous dwelling. He, therefore, had to demolish it first. He gave contracts for quarrying and fetching of stone and slates. He spent Rs. 200.00 cash for the stone quarrying work and another Rs. 300.00 on feeding the persons, who fetched the stones to the building site. Similarly, the expenses on slates came to Rs. 300.00 for quarrying and Rs. 250.00 on meals to those who fetched the slates for roofing.

Pathretus, the persons, who had to go to the quarries for fetching the slates had to start from the village early in the morning. One of them, a *tehlu*, would prepare meals for the rest at the quarry and for this service, he was given six *chhatanks* of *ghee* in addition to the meal served there. The food consisted of *roti, bhagloon* and vegetables whenever available. In the evening, all the *pathretus* used to be fed at the house of M. Thakur and the meal consisted of *roti, daal* and 1½ *chhatanks* of *ghee* per *pathretu*. The *tehlu* or cook would again get six *chhatanks* of *ghee* for his service.

M. had much of the timber saved from his old house. He got some trees on concessional (*bartandari*) rates from the Forest Department. The expenditure on sawing and carriage of timber was Rs. 300.00 cash and a similar sum was spent on food to the labourers.

After collecting all the requisite material, he consulted his *purohit*, a Brahmin from Dadwari, to find the auspicious moment for starting the work. The *purohit* consulted his *jantri* for this and marked the spot where the foundation stone was to be laid. The entrance to the cattle-shed should be on the right of this stone. The *purohit* also calculated the life-span of this stone, which came to twenty-five years in this case. After this period, the owner would be required to replace this stone.

M. did not have to dig the foundations, as he utilised the previously filled in foundations of the old house. He simply inserted the *pathru*, i.e., the foundation stone, at the auspicious time and place, which was followed by a *hawan* and *kankwaru*, a feast of sweet dishes and some *dakshana*, alms given to unmarried boys and girls and the Brahmins.

A carpenter, who lived in the village, was engaged for the entire construction work. The carpenter promised to build the entire house in a period of twelve months. M. Thakur promised to pay him a sum of rupees seven hundred cash for this assignment. He also promised to give him on every *Shankrant*, four *battis* of food-grains and six *chhatanks* of *ghee*.

Walls: The walls of dry stone masonry, about two feet thick, were erected. At regular intervals, wooden beams were placed to give binding effect to the stones.

When the ground storey, i.e., the *khood* was ready, a set of clothes each to the carpenter and his wife was given. They received a coat piece of locally made *patti*, a shirt, a pyjama,

a *pattu* and a pair of *pulan* and *dohru*—blanket tied round the body by the village dame. M. Thakur also gave a bedding, comprising of a *durrie* and a *shella*—the goat hair mat, to the carpenter.

The ceiling of the lower storey serving as a floor for the upper one was laid. It comprised of wooden planks laid on joists. The construction method of walls and floors for all the storeys above upto the *churli* floor was the same.

The walls of this *churli*, unlike the usual stone-cum-timber walls of the lower storeys, were made of wooden planks.

The slate-roofing was laid, and the house was ready for occupation. Before occupying the house M. Thakur sacrificed two goats and also performed *havan*. The *Pundrik*, village deity, was present at the time of *havan*. M. Thakur spent about Rs. 200.00 at this occasion.

NALAG VILLAGE, SUNDARNAGAR TEHSIL

Settlement Pattern: There are eighty eight households lying scattered in different places of Nalag, Behna, Dhar, Balrah and Rakh. These are the various *pattis* or hamlets forming the one revenue village of Nalag. On the way to Nalag from Dehar, a bus terminus, one reaches Behna hamlet first. Behna is in the south of Nalag proper. A *nullah* flows through the village and on either side of this are the clusters of houses. The hamlets of Dhar and Balrah are in the north of Nalag and are situated on either side of the *nullah*. In Rakh, on the eastern side of the main village Nalag, there are a few houses, which are mostly the *doghris* of the villagers having their houses in the other hamlets. There are 86 structures distributed among these hamlets. There is no public place located here in the village.

Behna is predominantly a Brahmin hamlet. Nalag is predominantly inhabited by Rajputs. The scheduled castes *Lohars*, *Dumnas* and *Chamars* live scattered in the entire revenue village. Of course, their houses are built on one side away from others.

House Types: The houses in the village are built on the old and traditional pattern and no change has occurred in the style during the last so many years. However, in the hamlet of Behna, one comes across a few houses built recently in semi-modern pattern. Houses are generally double-storeyed with a sprinkling of three-storeyed structures. They have slate roofs gabbled or pant style. The number of rooms constructed may vary from owner to owner. Generally there is built one room which is partitioned into two or three by means of wooden partitions. The ground floor, in most cases is used as a cattle-shed. Some have their cattle-sheds built separately.

There are no standard specifications followed in respect of the size of the rooms. Availability of the space, means and requirements are the governing factors. A typical house in Nalag would be the one belonging to Jangi Ram, a Rajput. His house is said to be 50 years old and cost Rs. 1,000 when it was built. This is a double-storeyed structure, each floor has one room. The overall dimensions of the room are 15 feet length and 13 feet breadth with a height of 6 feet. Each room has only one door and no windows. The houses are, generally, ill-ventilated and low-roofed.

The houses have court-yards in front which are used for tethering the cattle. The houses being small and the hygienic sense non-existent, there is no practice of having separate baths and kitchens. One corner of the room may be used for taking bath by the women of the house. Men take their bath in the open in a corner of the court-yard. But these baths are had after long intervals. No provisions exist for smoke outlets. Generally round holes are chiselled out in the slate-slabs, which provide an escape for the smoke.

The floors are plastered with cow-dung and clay. White washing with *makol*, purchased from Dehar is done only by few. The important occasions for white washing are Bishu and Dewali festivals.

Construction: Due to the hilly terrain of the village one has first to do levelling of the site. This involves much labour and expense. All the adult family members assist in this apart from the hired labourers. The foundation may be two to three feet deep. Dry stones are filled in the bed of the foundation and to make the surface even and compact, a certain amount of ramming is done. Masonry of dry stones is done in off sets up to the plinth level. In the hills, there is a common practice to keep the plinth level low. In some cases it is up to the ground level only. This is due to the

fact that the houses situated in the hills are free from the capillary action of water rising above the plinth level. This very practice is followed in Nalag also.

Stones, mud and slates used for construction are available locally. The villagers are experiencing acute shortage of timber. But for this difficulty, the villagers feel, the houses could have been better. Though the villagers are *Bartandars* or right holders of Kalhog forests and entitled to get the timber at concessional rates but it is not available easily and according to need. Stones are extracted from fields without any difficulty. The slates available locally are not of good quality but the villagers feel that the same serve their purpose well. The poor and scheduled castes use thatch for roofs.

The masons and carpenters are engaged from the neighbouring villages. The wood work is done by the carpenter who is paid Rs. 4.00 to Rs. 5.00 a day. The mason is paid from Rs. 3.00 to Rs. 4.00 a day. Unskilled labourer does not charge less than Rs. 2.00 a day.

The village blacksmith contributes his share in the construction work. He prepares iron handles and nails.

Rituals: The religious ceremony associated with the laying of a foundation stone is called *pathru*. The day on which the foundation stone is to be laid is fixed by the priest. The owner goes to the site selected along with the priest and the mason. *Puja* and *havan* is performed. A piece of red thread is tied round a piece of stone, called *pathru*, which is placed in the bed of foundation. If directed by the priest, the piece of stone may bear the images of a cow or bull. This is done to ward off the evil spirits. After the *puja* finishes, the priest is paid Rs. 1.25 by way of his *dakshana*. The days from Phalguna to Chaitra are chosen for construction work.

On the day on which construction of wall starts the priest is called again. According to the size of the house, a flat piece of stone is properly hewn, if the house is 30′×15′ (20 *hath* × 10 *hath*) the size of the stone would be 20 *ungals*×10 *ungals*. This stone is washed in *panch-gabya*. *Panch-gabya* is prepared by dipping red hot or cold pieces of silver and gold in cow's milk. To this is added a little cow-dung and sacred water of Ganges (*Gangajal*). That is in all *panch-gabya*. *Gangajal*, brought from Haridwar, is generally kept in many houses. The stone after washing in *panch-gabya* is placed in the middle of the wall. The priest is given Rs. 1.25 as *dakshna*. This is called *bastru* ceremony. Four types of *bastrus* have been classified. These are *bail bastru*, *nag bastru*, *sher bastru* and *dhuj bastru* and signify different ages of houses, ranging from 20 to 100 years. When a house has reached the prescribed age according to a particular *bastru*, the *bastru* stone must be replaced or the house rebuilt.

The table below gives an account of households and the number of rooms occupied:

Total No. of households	Total No. of Rooms	Total No. of Members	Households with one room		Households with two rooms		Households with three rooms		Households with four rooms		Households with five rooms		Households with five rooms and more	
			No. of households	No. of family members	No. of households	No. of family members	No. of households	No. of family members	No. of households	No. of family members	No. of households	No. of family members	No. of households	No. of family members
82	386	572	9	44	17	119	4	22	23	118	4	34	25	235

PANGNA VILLAGE, KARSOG TEHSIL

Residential Pattern: Pangna village is situated alongside Mandi-Karsog motor road. There are four houses situated on a slope, quite apart from each other, above the road and the rest of the village is below the road on a slopy terrain. Besides the main Pangna *abadi*, inhabited by Brahmins, Mahajans, Rajputs, *Lohars* and *Telis*, the village has as many as eight other hamlets distinctly named. Five of these eight hamlets, *viz.*, Ghengli, Ram Bagh, Dhungru, Khalog and Tharu Dar are inhabited by *Kolis*, *Naths*, *Chanals*, *Kolis* and *Chamars* respectively, all scheduled castes. In Rakin hamlet there live *Kolis* and Mahajans, in Kufri *Kolis* and Brahmins and in Sanur *Kolis* and Mahajans.

During the last twenty years the main *abadi* has spread towards the bridge on Pangna *khad*, where, along the sides of a mule road, shops were built by the Mahajans and a few Brahmins. Initially it was only a business

extension by the Mahajans and the Brahmins with their residences elsewhere in the village. In due course of time, with the increase in the sizes of their families, the shops became shops-cum-residences.

There are a number of government buildings in the village. P.W.D. Rest House, Police-Post, Ayurvedic Dispensary, Patwarkhana, Gram Sewak Hut and the school building are in the main *abadi*. P.W.D. Overseer's quarter-cum-office is away from the main *abadi* alongside the Karsog-Mandi motor road. All these buildings, excepting the P.W.D. Rest House and the school building are recent constructions.

Near the P.W.D. Rest House in the main *abadi*, there is a very old five storeyed building, the remnant of a Raja's palace-fort. Pangna was before 1240 A.D. the capital of Suket State. The old building now houses the image of a goddess.

House Types: There are 93 residential buildings at Pangna, each occupied by one or more households. Broadly speaking, there are three types of houses which are to be found in the village. Most conspicuous are the *chauki* style houses. There are in all eight such houses, scattered all over the village and they all belong to the Mahajans. The next ones are the shop-cum-flats, eleven in the village. All the rest are ordinary type single or double storeyed houses. There is no structure, except the remnant of an old palace fort, having more than two storeys. There are fifteen modern style buildings, if these may be called as such on account of large glazed windows. Rest of the houses have been built in the traditional pattern. The floors of five shops have been cemented.

In a two storeyed house, the ground floor is called *obra* or *gwain* locally and in many residential houses, these are used exclusively as cattle sheds. The *chauki* style houses have separate cattle sheds attached to them. Similarly, in the case of shop-cum-flat type houses, separate cattle sheds have been built, wherever needed. The rooms in the upper storey are called *baud* and are used for living purposes.

(i) *Chauki type*: *Chauki* type house structure is built along the four sides of a piece of land or say a court. In other words, it is a house with four wings built around a court. The verandah and entrances to rooms in the house face the court in the centre. In Pangna these houses are all double storeyed. The entrance to the house is from the ground floor. This is locally called *paraul*. The verandah inside on the ground floor is called locally *bih*, from where there are stairs to the upper storey. The verandah inside the upper storey is locally termed *paura*. The *bih* is paved with stone slabs or it has mud floor. Of late, the *bih* floor in some of the houses is built in with cement and concrete. The *paura* above the *bih* has wooden or mud flooring laid on wooden planks. There is no railing in the *bih*. Well shaped wooden pillar posts are there to support the *paura* above. The *paura* has a railing. The court in the centre, in local term known as *angan*, is paved with stone slabs. To drain away the water, there is one outlet from one side of the *angan* passing through under the ground floor of the house. In the middle of the *angan*, there is a pedestal, two to three feet high, round or rectangular in shape. Upon this in an earthen vase, sacred *Tulsi* plants are grown.

The upper storey of the house has, more or less, the same number of rooms as in the ground floor, with entrances leading to them from the *paura* and *bih* respectively. The door frames and shutters in many houses are carved in exquisite and traditional designs. It is not necessary that rooms are built in all the four wings of the house. Any wing without rooms is called *naswal*. In any wing of the house, in between two rooms or alongside a room, there may not be a fully built-in room. This is called *van*. It has got no wall built-in on the verandah side.

The exterior view of the *chauki* type house on all four sides presents walls with small or large door like windows in them, excepting the *banglu* in the upper storey in one of the four corners of the house or in one of the wings. Instead of a fully built in four walled room in the corner or the wing, there is this *banglu*. In the corner one or both the walls of it from without are not built up and in the wing one wall from without is not built up. It is the *baithak* (sitting room) of the ladies in particular during the day time. It is secluded and yet commands a full view of things around.

Due to abundance of rooms in a *chauki* type house, if only one household is in occupation of it, there will be one room exclusively used as a kitchen in the upper storey. In some houses, the room immediately below the kitchen in the ground floor is kept filled up with earth as a safety measure against fire. Smoke outlet from the kitchen is a hole in the roof which can be closed or shut with a sliding slate.

(ii) *Shop-cum-Flat houses*: These are two storeyed structures. The ground floor is used as a shop while the upper storey is used for living purposes. The shop is usually about fifteen to twenty feet in length and eight to ten feet in width with a store in the back. The commodities for sale are arranged in built in wooden shelves. Stairs either from the store or from outside the shop or from both lead to the upper storey which may contain two to four separate rooms and a verandah, called *paura* locally. The *paura* forms a sort of porch for the shop.

(iii) *Other types*: Most of these houses are double storeyed. The ground floor is invariably used as cattle shed, while the upper storey is used for living purposes. Upper storey of a house is approached from below by stairs or ladder leading on to the verandah. In some cases the verandahs of the houses in the upper storeys are in level with the ground on the slope above, providing straight approach. Some houses are in 'L' shape style. Such houses are locally called *gunia wala ghar*. *Gunia* incidently is the name given to a 'L' shaped tool of mason-cum-carpenter, used for judging whether the two walls are at right angle or not. In these houses provision of a separate kitchen depends upon the number of households residing in a building and number of members in a particular household. Large families, with a small number of rooms are obliged to utilize one of the living rooms for kitchen as well.

There is no bath or latrine provided in any type of house of villagers in Pangna. People go out in the neighbouring fields or near the Pangna *khud*. A house, in which there is a separate kitchen, have a small space in a corner of the kitchen paved with stone slabs. Here household members bathe and wash utensils. This space is called *chala* by the villagers.

The space between the ceiling and roof, approached from inside the room by ladder leading on through an opening in the ceiling, is used as a store for spare household articles.

Building Material: For roofing of houses slates are used. In old houses and on those owned by poorer classes of people there are thick slates of irregular shapes, while on the new ones of the well-to-do, there are superior quality slates on the roofs. Slates are purchased from the government quarry at Jaun, 2 kms. away from Pangna. Small slate quarries, owned by different households, also exist in Pangna village. Timber is available for construction of houses on concessional rates, from Bakaran, Begli, Chhattri, Kufri, Sandral and Surehi forests of Pangna block. Stone used for construction of walls is available near about in the village.

Construction: *Mahurat*, auspicious time for commencing the construction of a house, is worked out by the local priest. Walls are built, $1\frac{1}{2}$ to 2 feet in thickness, in dry stone masonry, with beams of wood at regular intervals. The wooden beams serve as binders otherwise the entire wall is likely to crumble down under its own weight. Doors in the old houses are about 5 feet in height and about three feet in width. No proper windows were provided in them. Small recesses were provided inside in the walls in every room, called *teera*, for keeping lamps or other small articles there. Comparatively in new houses or old houses repaired, which are very small in number, doors six feet in height and proper windows in all the rooms, have been provided.

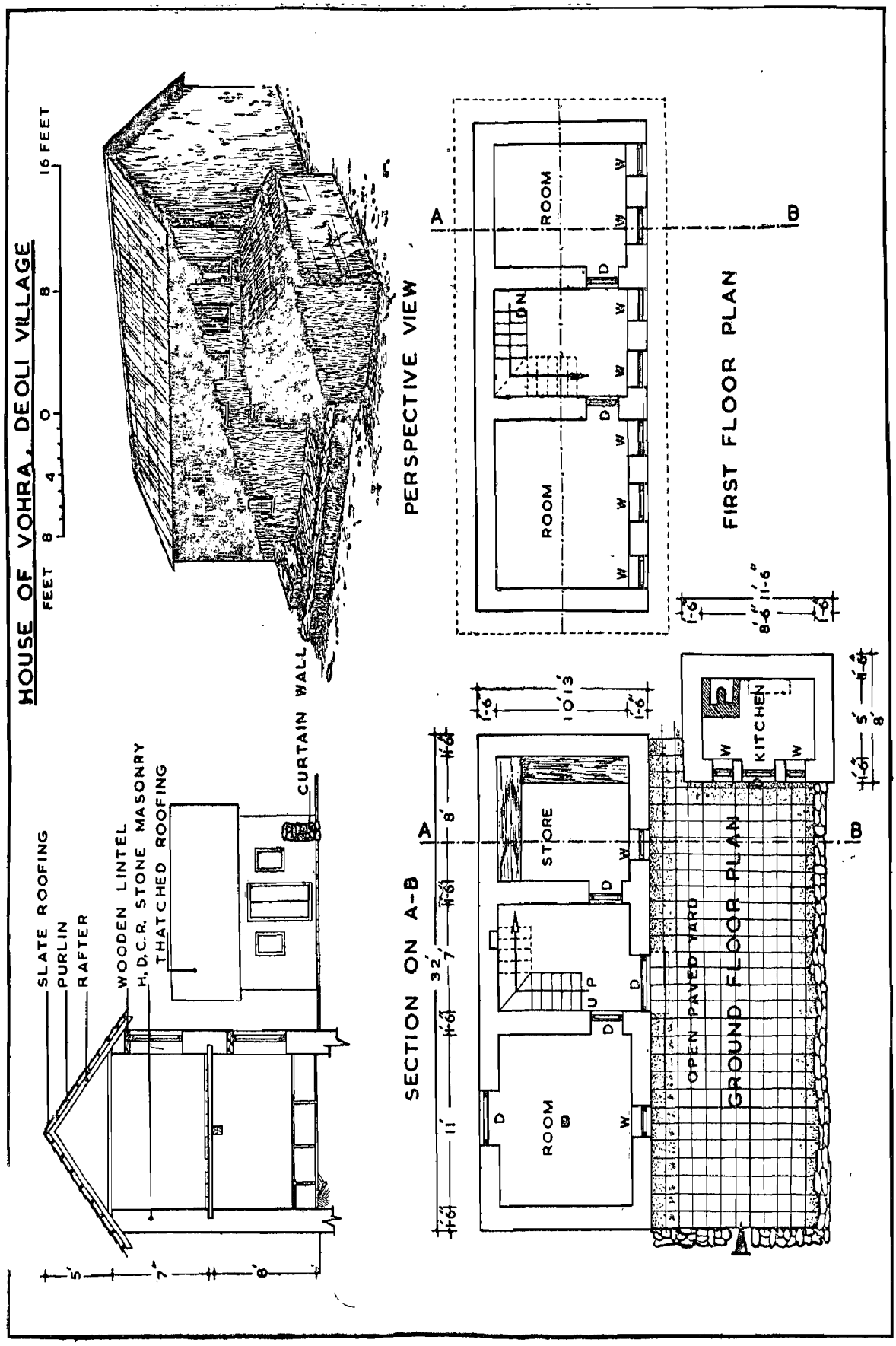
All the houses are white-washed with an indigenous type of white clay called *makol* which is brought from nearby villages of Barnog, Odi and Halaina in Chichot Tehsil. A grey coloured *makol*, which is available at *Tattapani*, at a distance of about 27 miles, is also used sometimes.

Bolts, nails, screws, doors handles, varnish, window panes etc., for houses are all sold by local shopkeepers who obtain these from the wholesale markets of Delhi and Amritsar.

Masons and carpenters are available in the neighbouring villages of Charkari, Galiyong, Kaniog and Rubara. The wages paid to the carpenters-cum-masons are Rs. 2.50 to Rs. 3.50 per day and those paid to the unskilled labour are Rs. 1.25 to Rs. 1.50 per day, plus meals.

Rural House Types—Line Drawings including ground Plans and Elevations—Bilaspur District

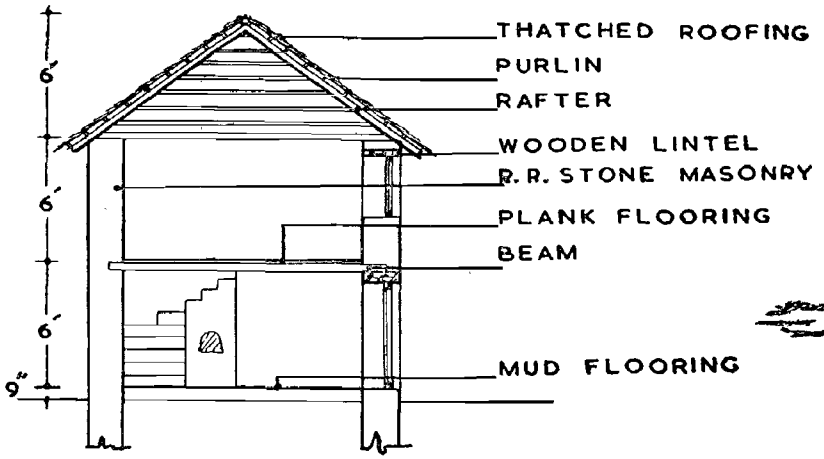
Serial No.	Tehsil/Sub-Tehsil	Village (Hadbast No.)	Owner of house/Caste	Main building material used in construction of house	Availability of material	Year of construction declared by owner	Approximate cost when constructed (according to owner)	Rooms and their uses
1	2	3	4	5	6	7	8	9
							Rs.	
1	Ghamarwin Tehsil .	Dabhla (H.B. No. 415)	Mahantu (Scheduled caste)	1. Wall—R. R. stone masonry 2. Roof—Thatch	Main material available locally	1940	1,000·00	1. Ground floor—One kitchen and one living room 2. First floor—Two living rooms
2	Bilaspur Sadar Tehsil .	Deoli (H.B. No. 108)	Vohra (Brahmin)	1. Wall—H.D.C.R. stone masonry 2. Roof—Slates and thatch	Main material available locally	1950	3,000·00	1. Ground floor—One kitchen, one store and one living room 2. First floor—Two living rooms



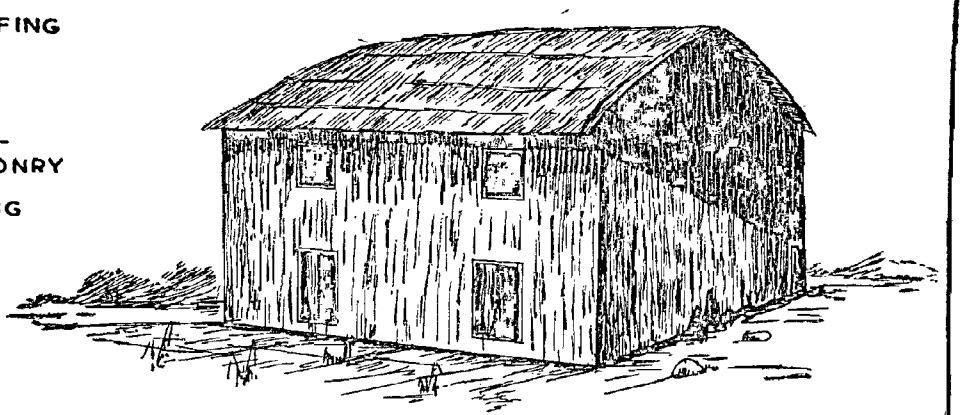
Bilaspur Sadar Tehsil

HOUSE OF MAHANTU, DABHLA VILLAGE

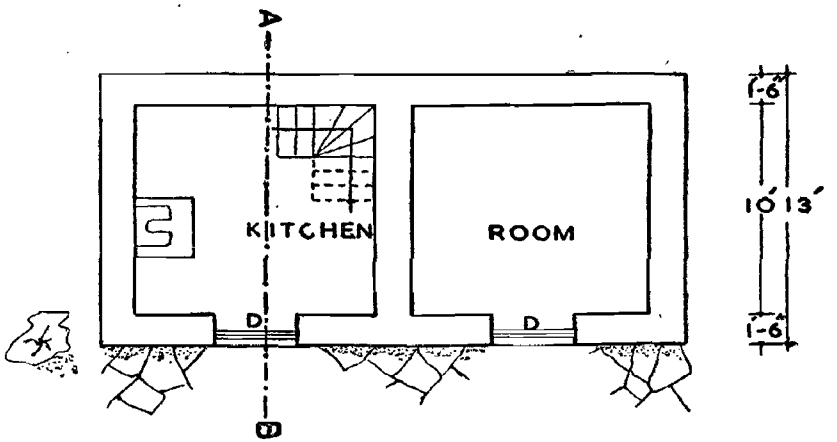




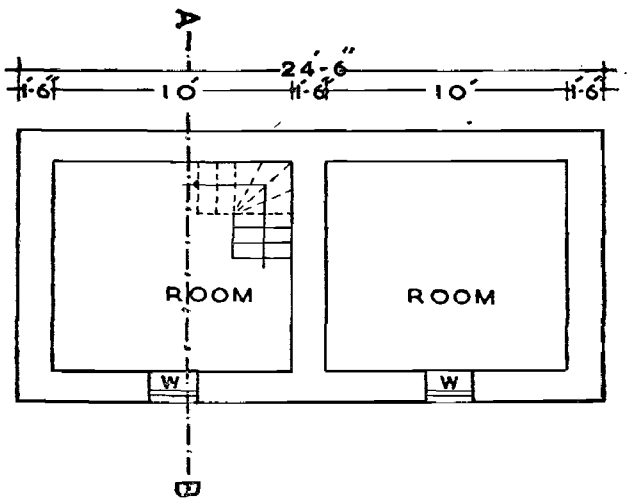
SECTION ON A-B



PERSPECTIVE VIEW



GROUND FLOOR PLAN



FIRST FLOOR PLAN

Extracts and Reprints

BILASPUR STATE GAZETTEER—1901, PART—A

"*Buildings**: Previous to the State being brought under management the palace erected by Raja Amar Singh was the only public building of importance. During the last two or three years substantial stone buildings have been constructed for the hospital and school, new barracks and State stables have been built, and a large Durbar Hall, called the Victoria Diamond Jubilee Hall, added to the palace. This is a memorial designed by the present Raja to commemorate the Diamond Jubilee, but for various reasons its execution had to be postponed."

* All submerged now in Gobind Sagar lake on completion of Bhakra Dam.



Bangala Huts

Notes on House Types and Residential Pattern of Villages

DABHLA, DARI VILLAGES, GHAMARWIN TEHSIL

Residential Pattern: Dari village is on a higher level above Dabhla, and inhabited by Brahmins and one household of a Muslim *Teli*. In Dabhla there live Brahmins, Scheduled Castes—*Daola, Chamar, Koli* and *Hesi* and one household each of a Jat and a Khatri. Dabhla village stands divided into seven sections locally known as *plangariyan*. Each *plangri* is distinctly named. Baghal *plangri* is inhabited by 12 households of *Chamars*. 2 households of *Kolis* and one Brahmin shopkeeper. In Neri *Plangri* there are two households of jat and *Hesi*. Jarol *plangri* is inhabited by one household of a Brahmin. In Lerah *plangri* there live two households of Brahmins. In other two *plangariyan* of Balh and Gor there is no habitation.

The lay-out of houses in both the villages is not systematic excepting in a part of Dari Village. In Dari about 25 years back, a huge fire broke out and almost half of the houses there were gutted. After this the new houses were built up in an orderly fashion. Barring this there is nothing systematic in the layout and one finds clusters of houses and solitary houses here and there.

There is no difference between the houses of scheduled and non-scheduled castes. A well-to-do villager, no matter of what caste, has a better house.

House Types: New houses are well ventilated as compared with the old ones. The houses are mostly double storeyed. The houses do not have open verandahs excepting one house which is a shop-cum-dwelling.

The double storeyed houses are built after one common pattern. The ground floor is called locally *paura*. In the ground floor, the entrance room is called *beeh*. The inner room/rooms is/are called *obri/obriyan*. The first floor is called *baur*. A double storeyed house is styled locally as *paure wala ghar* and a single storeyed house as *bij paure wala ghar*. The first floor is reached from the ground by a stair in the *beeh*. In the first floor, there are in majority of the houses three rooms. One room is rectangular just above the *beeh* of the ground floor. This rectangular room on the first floor and the *beeh* on the second floor would have been verandahs but for the enclosing walls. Kitchen is on the first floor of a double storeyed house.

The roofs of the houses are covered with slates mostly. Houses with thatched roof are also there.

In most cases, in front of a house there is a small open space, a sort of a courtyard where cattle are tied in winter months during day time and at night during summer. In many cases one such courtyard will be common to two houses opposite to each other. There are kitchen gardens around the open spaces in front of some houses. Some statistics about living accommodation are—

(1) 35 households (146 persons) live in houses having four rooms each.

(2) 15 households (103 persons) live in houses having five or more rooms each.

(3) 16 households (72 persons) live in houses having two rooms each.

(4) 12 households (53 persons) live in single room houses.

Building Material: There is dearth of timber, so much so that doors in the first floor of most of the houses are without shutters. In some cases, the windows are also without them. Shisham wood is used for doors and windows. Slates have to be brought from Kangra District. For thatched roofs, *surar* grass is locally available. Bamboo, used in roofing is available locally without much difficulty. Iron hooks, nails, nuts, bolts, screws are procured from Ghamarwin shopkeepers. Cement is being used in new constructions by some well-to-do villagers. Stone for construction is available quite near. Sun dried bricks are used in building houses and these are prepared by the villagers.

In the past, villagers helped one another free of charge in the collection of building material, particularly stones. They helped in preparing bricks and even during the construction. Everyone willingly came forward and helped, even if it meant keeping one's work pending. This practice is now almost dying out, because the amount spent on feasting the helpers does not compare well with the work done. According to a village panchayat member, those who come to help do not work hard as they should. Now labourers are employed on daily wages.

Construction: For house construction skilled workmen are engaged from neighbouring villages of Kothi, Glassin, Kasole and Kalari. The months of February and March are considered suitable and convenient to take up such work.

The *Swarns* consult the *pada*—village priest before constructing a house. Some scheduled castes also do it. The *pada* has a pertinent say in declaring the site suitable or unsuitable. He fixes an auspicious day for starting the construction after the foundations are dug. A big stone slab, locally called *chaka* is placed in the foundation on the morning of the auspicious day. The owner and the workmen are present and the priest performs a *puja* and places on the *chaka* rice, *gur*, a piece of coin, *mauli* thread, flowers, and *tikka*. Then it is covered with earth and the foundation is filled up, and construction work starts. If during the ceremony of placing the *chaka*, a fox or a jackal or a dog howls or an owl hoots, that is considered very inauspicious and the work is not put through. The priest gets *dakshna* for the *puja*. *Gur* is distributed among children.

The foundation of the house is generally dug about three feet deep, and its bed is well rammed. It is filled with stone masonry. The stones are fixed with mortar. From the ground level, the outer walls are all built of dressed stone masonry and mortar upto the height of the rooms in the ground floor. The internal walls of the ground floor forming the rooms are of sun-dried bricks. The walls of the first floors by some well-to-do villagers are also built in the pattern of the ground floor walls. But in a majority of cases the walls of the first floors are of sun dried bricks. The frames of doors and windows are fixed at appropriate heights in the walls as construction progresses. When the first door frame is fixed in position, a shell, a piece of coin, some rice, some blades of *kusha* grass, and some flowers are placed in a piece of red cloth and tied to the door frame.

When the walls of the ground floor have been erected to the height of the room joists are laid to support the floor of the upper flat. After this the construction of the walls of the first floor proceeds till they are raised to the room height. If timber is available, joists are laid at this stage for the ceiling of the first floor. But there is dearth of timber in general. After this, work proceeds to complete the roofing, gabled or pant style, according to one's liking.

The houses have mud floors. In the ground storey, the earth inside the rooms is levelled and rammed. Over this a thick plaster of clay is given. For giving a smooth finish to the surface a coating of cowdung and clay is given. In the upper flat, over the joists laid already to support the floor, wooden planks are nailed and over them some grass or palm leaves are spread. These are covered with a spread of about 4" thick earth, which is rammed and the flooring work is carried further to finish as in the ground floor. All the floors are given a thin coating of cowdung mixed with clay once a week at least. The walls of the houses are plastered with mud and coated with a mixture of cowdung and clay. The walls are further white washed with a type of white clay, locally called *golloo* or *makol*. The walls are cared for and white-washed regularly. That keeps the house clean.

A new house may be occupied by a household for sleeping or other use except cooking of food. Meals can be cooked and taken there only after *Parthishta* ceremony is performed on some auspicious day fixed by a priest. On this day a big long garland, known as *patar mala*, of mango and *banyan* tree leaves is prepared. This is tied round the house. Blief goes that this *patar mala* keeps the evil spirits away. It is the sacred thread of the house. *Havan* and *puja* is performed by the priest. Brahmin and relations are feasted.

A house and its various parts are known by the following terms in the village.

Single storeyed house	*Bij paure ka ghar*
Double storeyed house	*Paure wala ghar*
House 25½′ × 12½′	*Kera ghar*
House 25½′ × 19½′	*Dora ghar*
Ventilator . .	*Roshandan*
Wall . . .	*Kand*
Floor . . .	*Bajitter*
Roof . . .	*Pauth*
Ceiling . . .	*Chhat*
First Floor . .	*Baur*
Ground floor . .	*Paura*
Entrance room in a double storeyed house . . .	*Beeh*
A window with shutters	*Khirki*
A window without shutters	*Dwari*

DEOLI VILLAGE, BILASPUR SADAR TEHSIL

Residential Pattern: Deoli village is situated alongside Simla-Bilaspur-Mandi motor road. Ali *khad* flows through the village and on one bank of this *khad* is located a big mirror carp hatchery established by the Himachal Pradesh Government. The village comprises of three distinctly named hamlets, Bakhail, Deoli and Saryali. Bakhail and Saryali hamlets are on one side of Ali *khad* and Deoli proper is partly on one side and partly on the other side. *Chamars* and a household of *Lohar* live in Bakhail. Their houses are built well spaced from each other. In Saryali there live *Chamars*. Here too the houses are well spaced from each other. In Deoli proper, in one side of Ali *khad* there is a school building and 7 houses of Rajputs, *Kolis* and a Vohra. There houses are at one place, two a little distance away from them and the others far away from them and each other. On the other side of the *khad* are the houses of the bulk of the population of the village. Out of them five houses of *Julahas* are situated, two at one place and three a little away in one side; six houses of Rajputs, away from each other, in another side; and two other houses of a Brahmin and a *Julaha* in the third side, far away from the main habitation in Deoli proper. These houses of the *Julahas* and the Rajputs, particularly of one Rajput, are at a distance from the main habitation. In the main habitat, the houses of *Bhanjre* are distinctly located, and the rest of the habitation is that of Rajputs, Brahmins, Sunars, *Julahas, Chhimbe, Doomnas, Lohars* and one household of a *Daola*, with houses built in proximity.

There is one Forest Rest House, and a hut for Fishery Guards, recently built, near the hatchery tanks.

House Types: The dwellings have gabled roofs, thatched or of slates. Houses are mostly double storeyed with an approach to the upper storey from inside the ground floor through stairs. The houses have windows and are well ventilated.

There is no structural peculiarity between the houses of the different castes. Economic factor determines the structure of houses. A well-to-do family may have a good house, no matter what caste.

Material: Locally available material is used mainly. There are grass reeds for thatching, stones, sun-dried bricks, bamboos and timber available locally. Galvanised iron sheets have been used in some houses for roofing which are procured from Bilaspur. Slates are brought from Suket area of Mandi District. Iron handles, screws, nails and bolts are available with local shopkeepers. Dressed stones set in mortar are used for construction of walls. The timber of *simbal* and mango tree is used for doors. *Makol* or *goloo*, a white indigenous clay, is used for white-washing. Cow-dung mixed with clay is applied on the walls and floors for giving a smooth finish to the mud plaster and floors. Occasionally, say once a week, the floors of all rooms are coated with cow-dung. The use of cement is becoming popular.

Selection of a House Site: Among the scheduled castes there are no formalities observed. They build their houses wherever they want on their lands. Among others the approval of a *pandit* is formally obtained for a site. The elder of the household intending to build a house takes a handful of grains, blades of *drub* grass and petals or flowers to the *pandit*, who puts these in a *thali* full of water. Then he would stir this with dry blades of *kusha* grass. If most of the things placed in the water assemble, the site selected is approved. Otherwise the location may be slightly changed by a foot or so.

Construction: The foundation is dug some two to three feet deep. The walls are raised right from the foundation bed in dressed stones masonry, set in mortar. The walls of the ground floor are of dressed stones and in the second storey these are invariably of sun dried bricks fixed with mud mortar. Poor villagers use dressed stones only in the foundation depths, and the rest is all in sun dried bricks. Dressing of stones costs much. In most cases, alongside the front wall of a house, a platform about 1 foot high from the ground and 1½ feet wide, is built, where people sit to bask in the sun.

In the ground floor barred windows are provided. In the first floor well-to-do families have windows with wooden shutters and the others, who are poor have windows without shutters. In winter they put a curtain of gunny bags or bamboos' strips on the open windows to protect themselves from wind and cold. The roofs of the houses are mostly of slates.

By convention, the main door of the house must face east or west, and not north or south.

To keep the main door towards south is considered inauspicious.

Well-to-do families build separate cattle sheds near their houses. Poor families build sheds attached to their houses. During day time the cattle are tethered in the *angan*—court—in front of the house.

Workmen on construction are engaged from the village. The skilled masons belong to *Chamar* and *Doomna* castes. They get Rs. 3.00 per day, plus food. Unskilled labour is employed @ Rs. 2.00 per day. Carpenters belong to *Doomna* and *Lohar* castes. Thatching of roofs is done by *Bhanjara* craftsmen.

Villagers help one another in collection of building material and preparation of sun-dried bricks. This help is termed as *Jowari* locally. Food has got to be served in *Jowari.*



Wall Paintings

Rural House Types—Line Drawings including ground plans and Elevation—Mahasu District

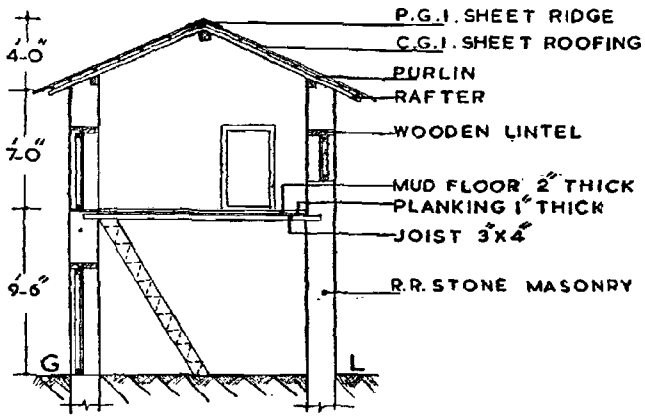
Serial No	Tehsil/Sub-Tehsil	Village (Hadbast No.)	Owner of house/ Caste	Main building material used in construction of house	Availability of material	Year of construction declared by owner	Approximate cost when constructed (according to owner)	Rooms and their uses
1	2	3	4	5	6	7	8	9
							Rs.]	
1	Arki Tehsil . .	Haripur Shahbar (H.B. No. 463)	Nikka Ram (Scheduled caste)	1. Wall—R.R. stone masonry 2. Roof—C.G.I. sheets	1. Stone and mud available locally 2. C.G.I. sheets from Subathu (Punjab)	1958	1,500·00	1. Ground floor—One cattle shed, one kitchen and one store room 2. First floor—Two living rooms
2	Seoni Sub-Tehsil .	Shakrori (H.B. No. 133)	Kanhya (Rajput)	1. Wall—R. R. stone masonry 2. Roof—Slates	1. Stone and mud available locally 2. Slates from Pangna	Not known to the present owner	Not known to the present owner	1. Ground floor—One living room and one store 2. First floor—Two living rooms and one kitchen
3	Kumharsain Sub-Tehsil	Kotgarh (H.B. No. 32)	Sagar Dass (Rajput)	1. Wall—R. R. stone masonry 2. Roof—C.G.I. sheets	1. Stone available locally 2. C.G.I. sheets from Simla	1958	15,000·00	1. Ground floor—One kitchen, one cow-shed, one store and two godowns 2. First floor—Four living rooms and one drawing room 3. Second floor—Three living rooms
4	Rampur Tehsil . .	Khaneri (H.B. No. 715)	Tanu Ram	1. Wall—R.R. stone masonry 2. Roof—Slates	Stone and slates available locally	Not known to the present owner	Not known to the present owner	1. Ground floor—One cattle shed, one sheep shed, one living room and one store 2. First floor—One kitchen, one store and two living rooms
5	Rohru Tehsil . .	Chergaon (H.B. No. 61)	Devi Nand (Rajput)	1. Wall—Dry stone masonry 2. Roof—Slates	Stone and slates available locally	1920	2,500·00	1. Ground floor—Two cattle sheds 2. First floor—Two living rooms 3. Second floor—Two living rooms
6	Jubbal Tehsil . .	Deorha (H.B. No. 22)	Jeet Ram	1. Wall—R.R. stone masonry 2. Roof—Slates	Stone and slates available locally	1920	1,000·00	1. Ground floor—One store and one cattle shed 2. First floor—One kitchen and one living room

Rural House Types—Line Drawings including ground plans and Elevation—Mahasu District—contd.

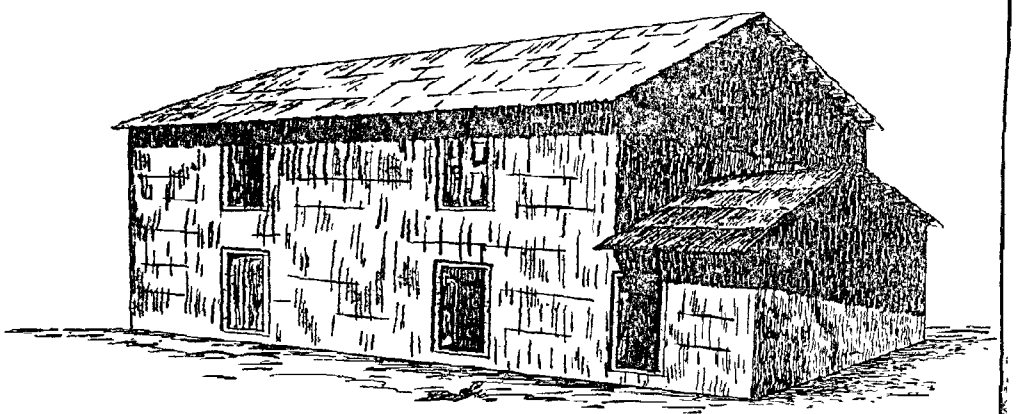
Serial No	Tehsil/Sub Tehsil	Village (Hadbast No.)	Owner of house/Caste	Main building material used in construction of house	Availability of material	Year of construction declared by owner	Approximate cost when constructed (according to owner)	Rooms and their uses
1	2	3	4	5	6	7	8	9
							Rs.	
7	Kotkhai Sub-Tehsil	Purag (H.B. No. 137)	Mirzoo Ram (Rajput)	1. Wall—R. R. stone masonry 2. Roof—Slates	Main material available locally	1814	Not known to the present owner	1. Ground floor—Three cattle sheds, two living rooms 2. First floor—Five store rooms 3. Second floor—Three living rooms, one store and one kitchen
8	Theog Tehsil	Gijari (H.B. No. 322)	Loku (Rajput)	1. Wall—R. R. stone masonry in mud 2. Roof—Slates	Stone and slates available locally	1950	2,500·00	1. Ground floor—Two cattle sheds 2. First floor—One living room and one kitchene
9	Kasumpti Tehsil	Mahili (H.B. No. 113)	Het Ram (Brahmin)	1. Wall—R. R. stone masonry 2. Roof—Slates	Stone and slates available locally	1930	1,000·00	1. Ground floor—Two cow-sheds 2. First floor—One living room and one kitchen
10	Solon Tehsil	Ber (H.B. No. 44)	Kali Dass (Harijan)	1. Wall—R. R. stone masonry 2. Roof—Planks and rammed earth	Main material available locally	1942	1,500·00	One bath room, two store rooms, one kitchen and two living rooms
11	Chaupal Tehsil	Chaupal (H.B. No. 53)	Mast Ram (Lohar)	1. Wall—H.D.C.R. stone masonry 2. Roof—Slates	1. Stone available locally 2. Slates from a distance of 14 miles	1935	1,500·00	1. Ground floor—One cattle shed 2. First floor—One living room

HOUSE OF NIKKA RAM, SHAHBAR VILLAGE

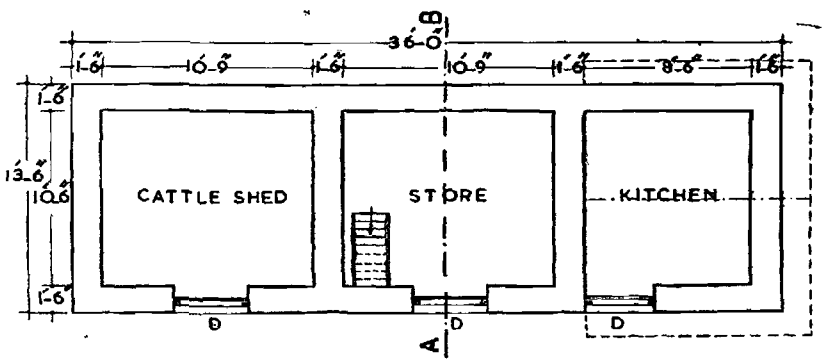
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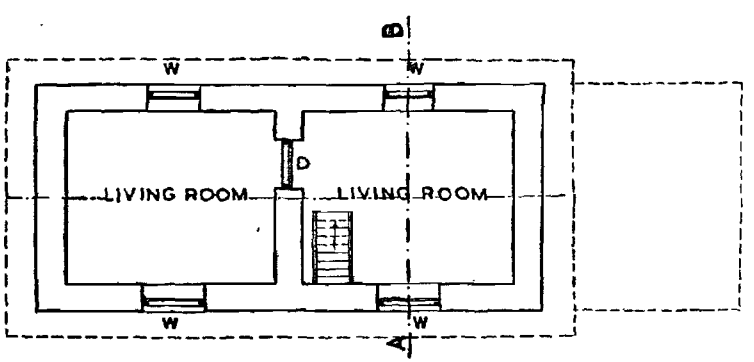
SECTION ON A-B



PERSPECTIVE VIEW

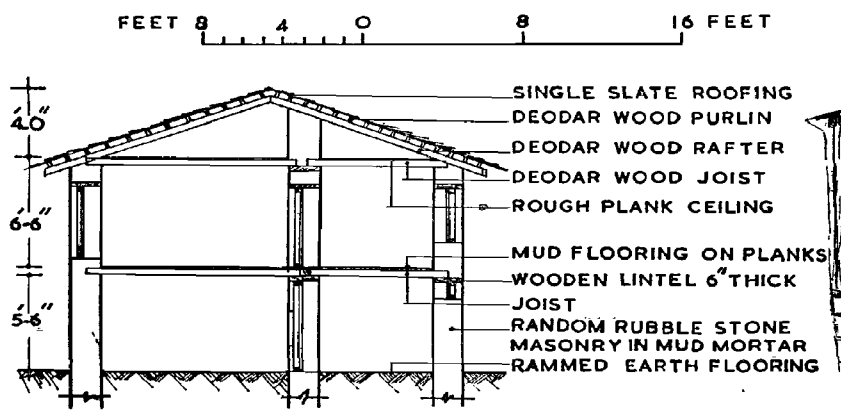


GROUND FLOOR PLAN

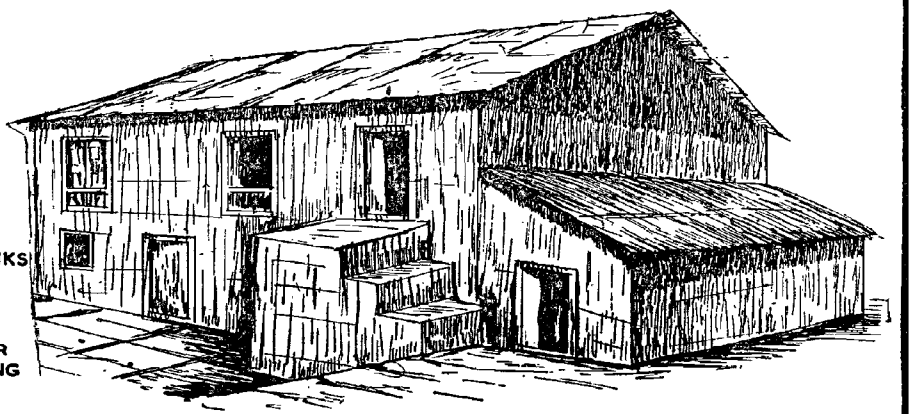


FIRST FLOOR PLAN

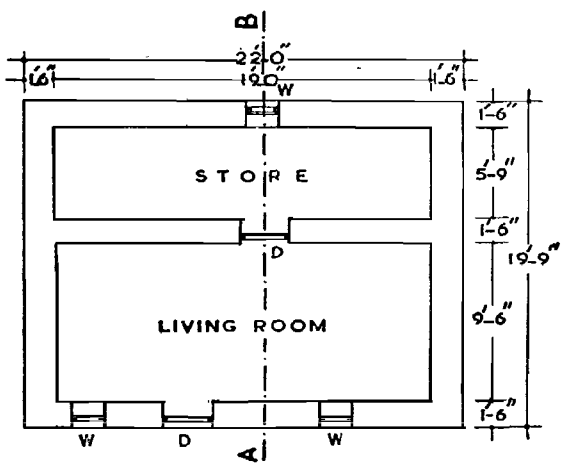
HOUSE OF KANHYA SHAKRORI VILLAGE



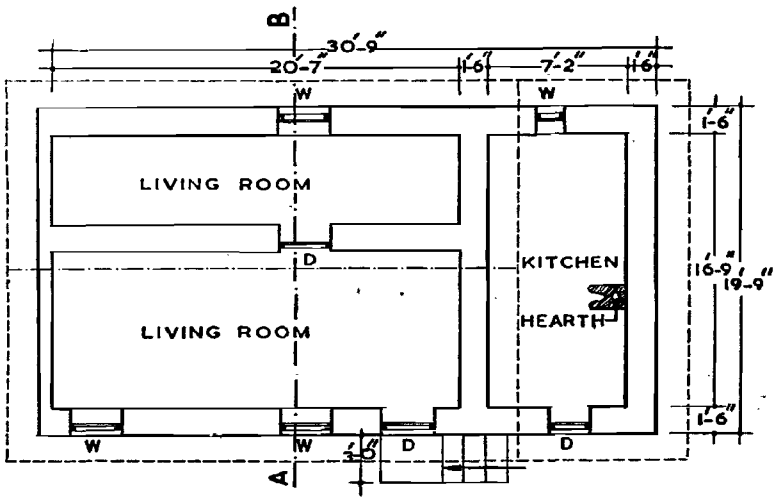
SECTION ON A-B



PERSPECTIVE VIEW



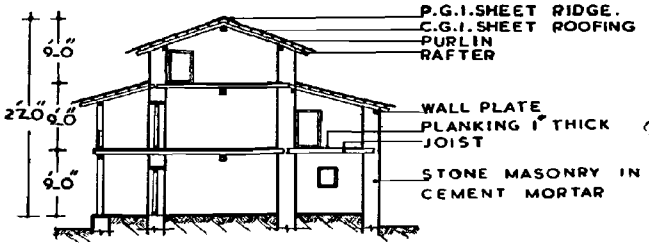
GROUND FLOOR PLAN



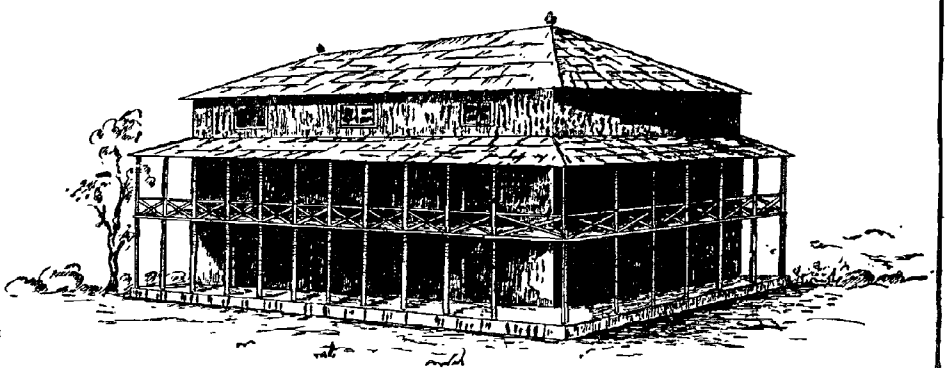
FIRST FLOOR PLAN

HOUSE OF SAGAR DASS, KOTGARH VILLAGE

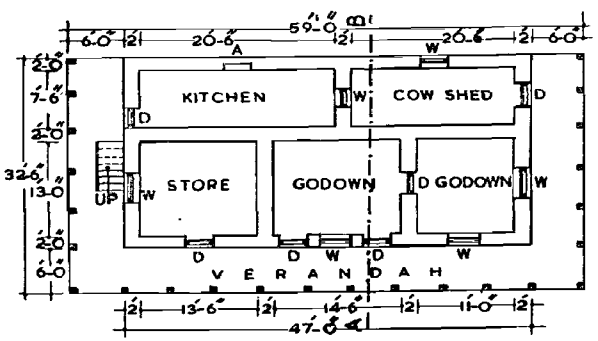
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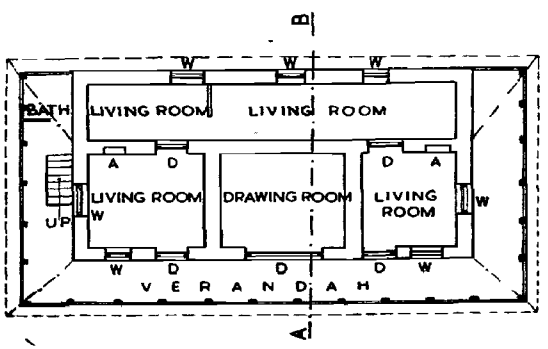
SECTION ON A-B



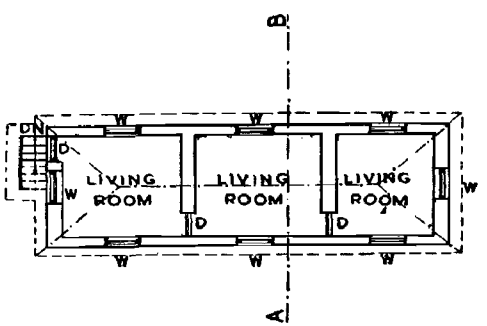
PERSPECTIVE VIEW



GROUND FLOOR PLAN



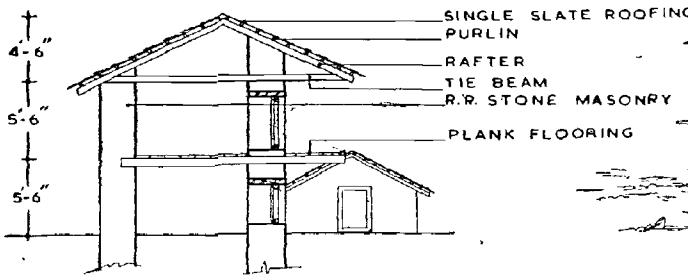
FIRST FLOOR PLAN



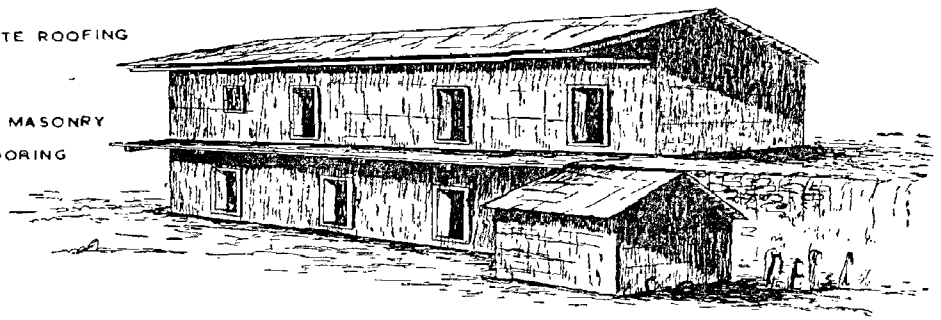
SECOND FLOOR PLAN

HOUSE OF TANU RAM, KHANERI VILLAGE

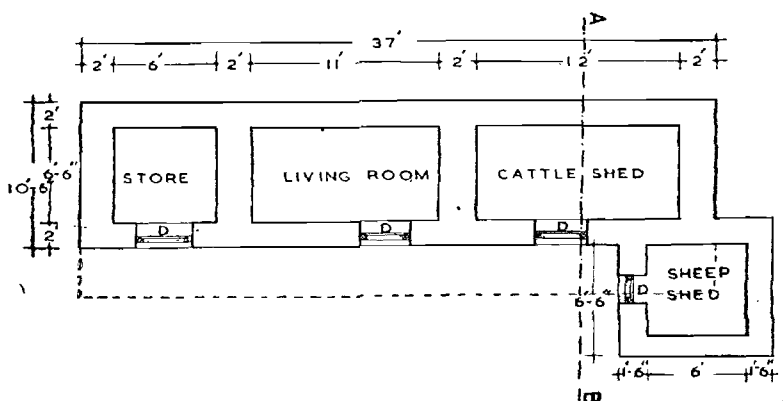
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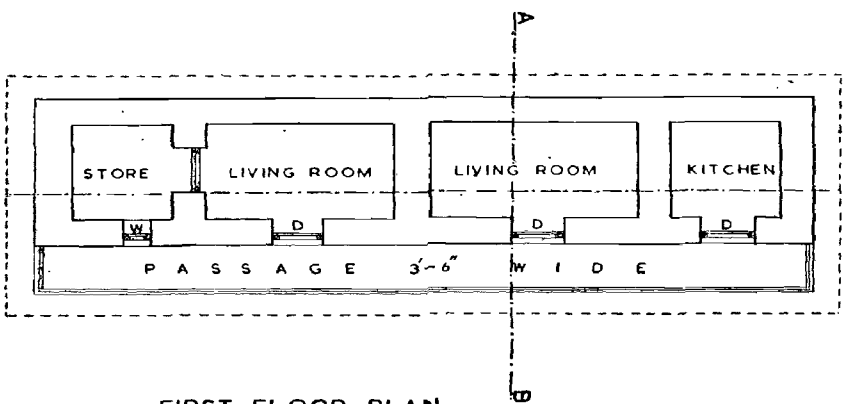
SECTION ON A-B



PERSPECTIVE VIEW



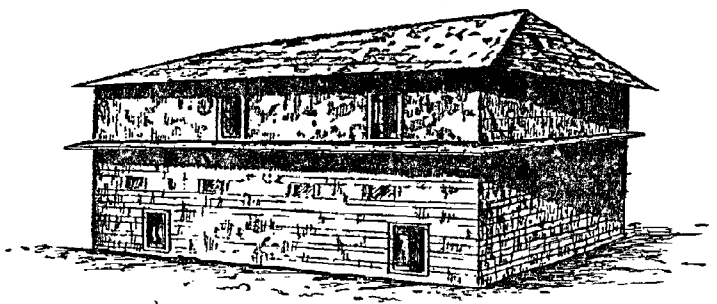
GROUND FLOOR PLAN



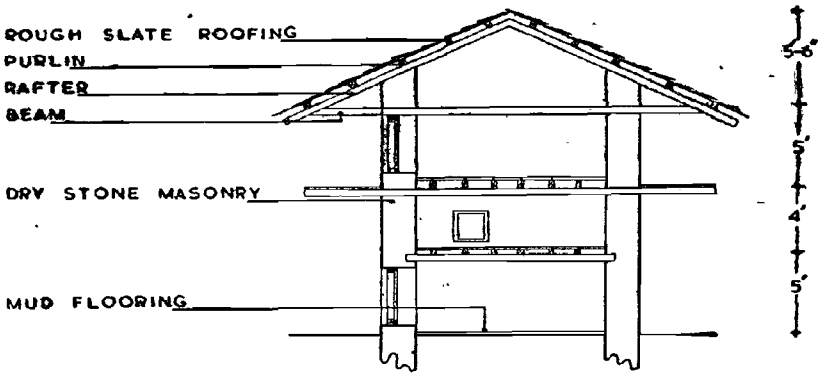
FIRST FLOOR PLAN

HOUSE OF DEVI NAND, CHERGAON VILLAGE

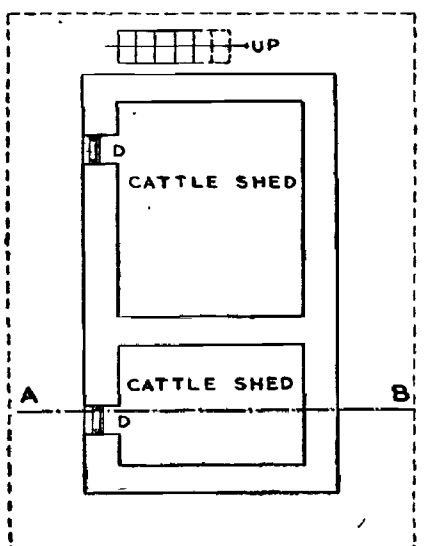
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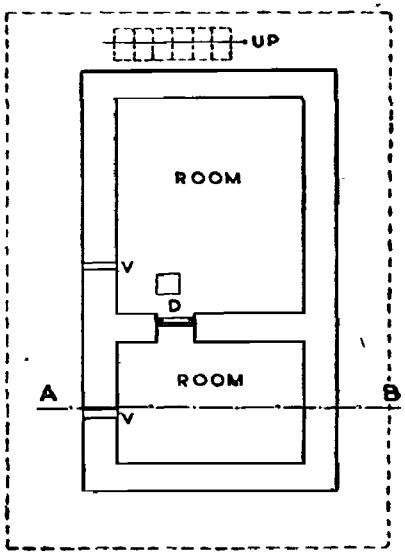
PERSPECTIVE VIEW



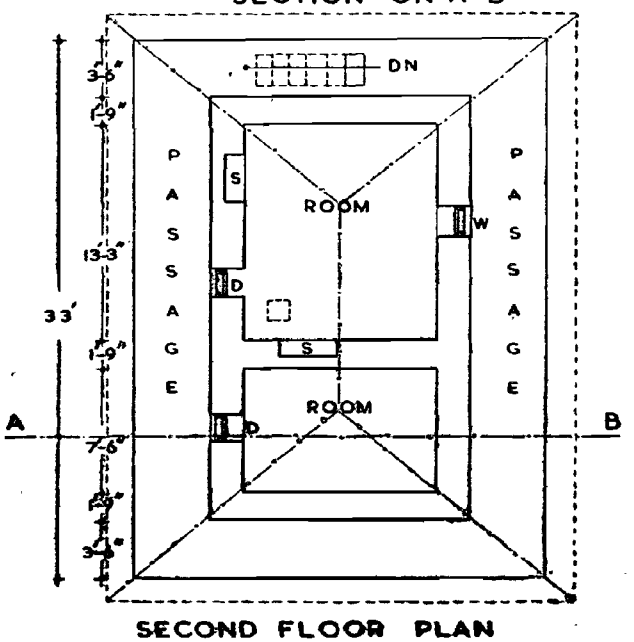
SECTION ON A-B



GROUND FLOOR PLAN

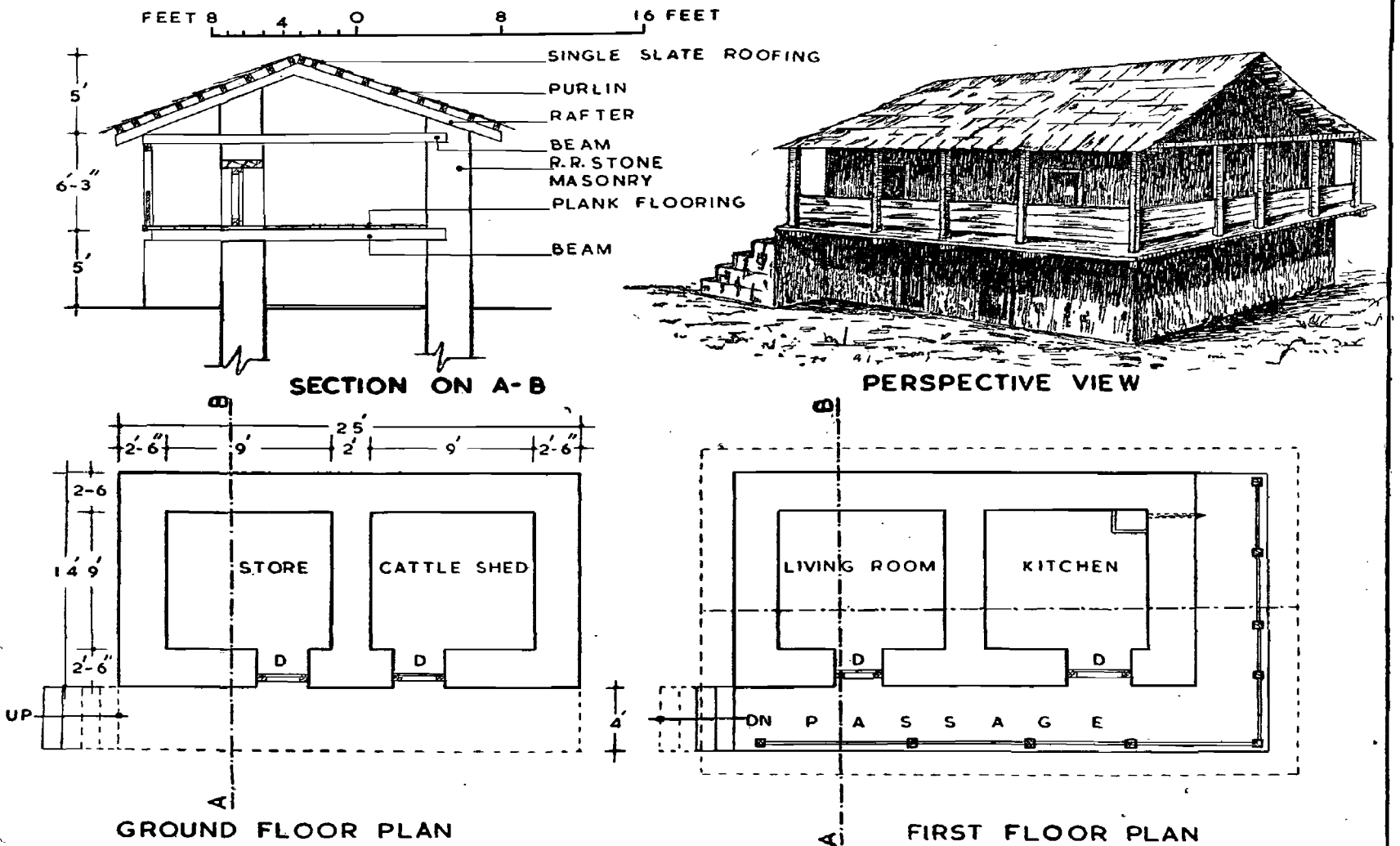


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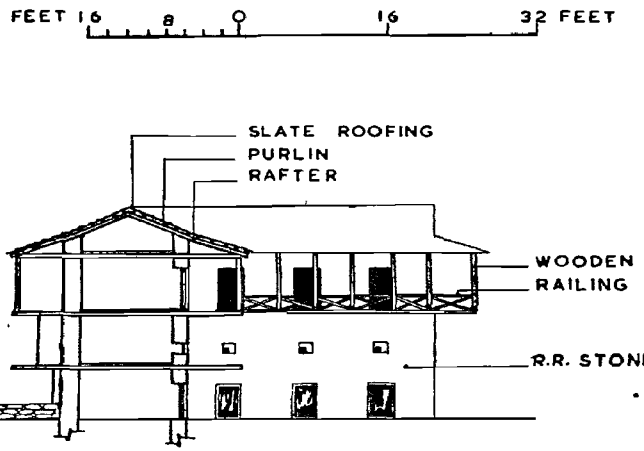


SECOND FLOOR PLAN

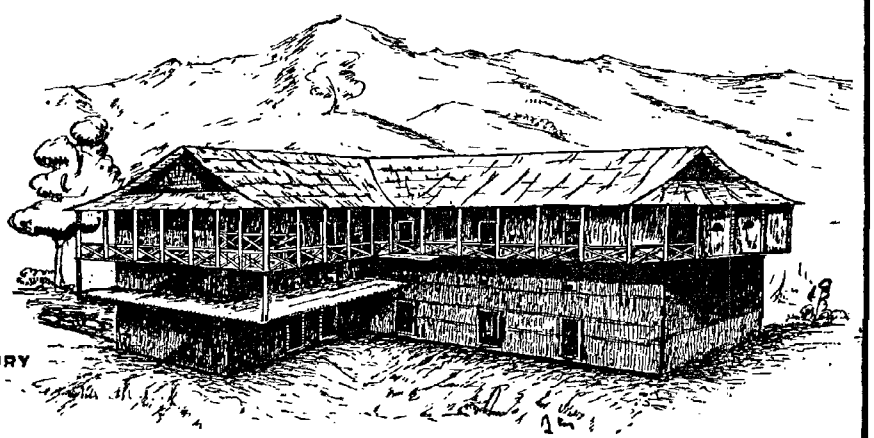
HOUSE OF JEET RAM, DEORHA VILLAGE



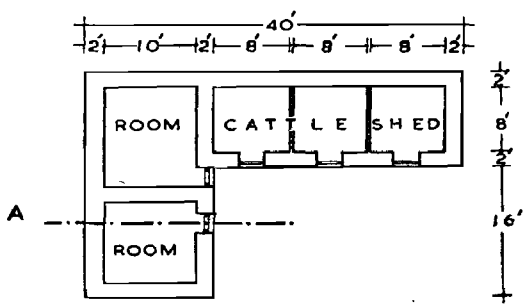
HOUSE OF MIRZOO RAM, PURAG VILLAGE



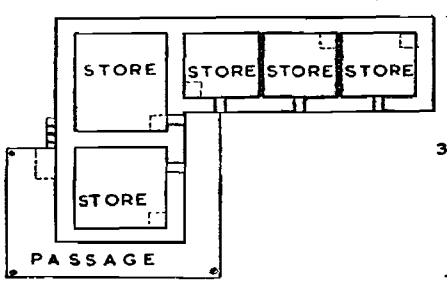
SECTION ON A-B



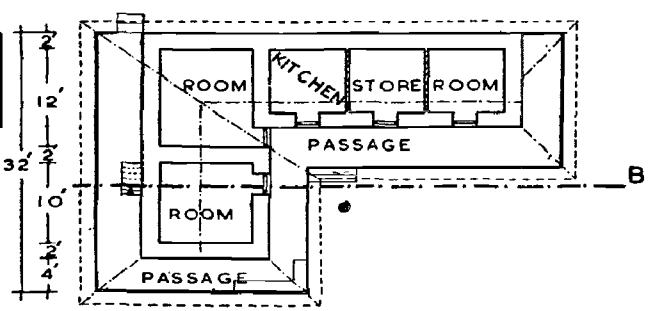
PERSPECTIVE VIEW



GROUND FLOOR PLAN



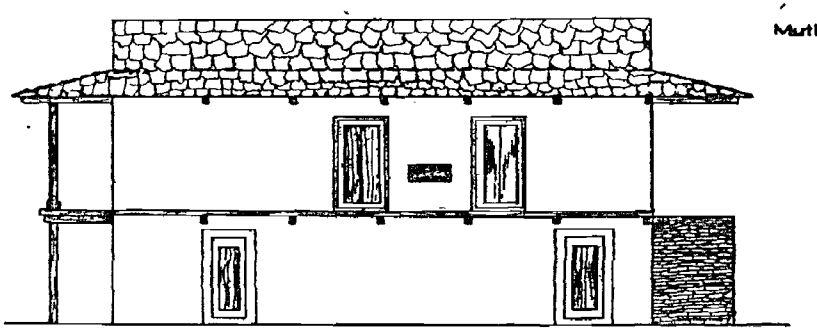
FIRST FLOOR PLAN



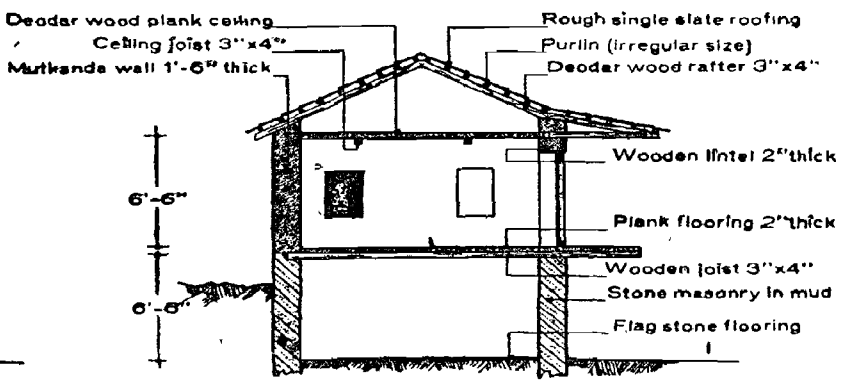
SECOND FLOOR PLAN

HOUSE OF SH. LOKU

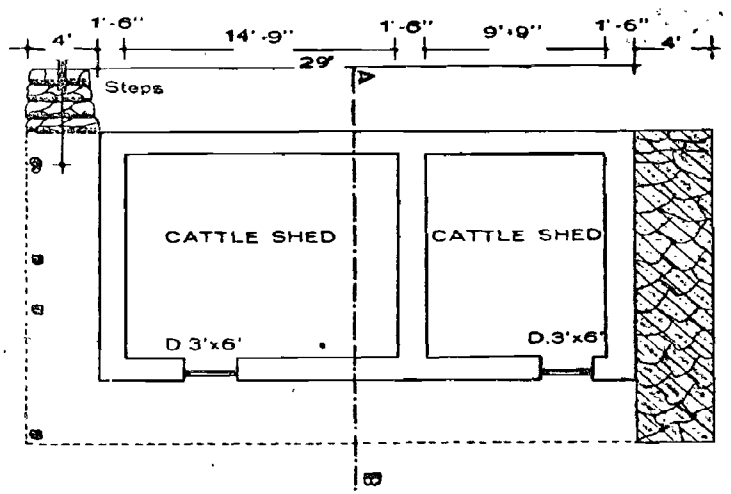
Village Gijari Teh. Theog



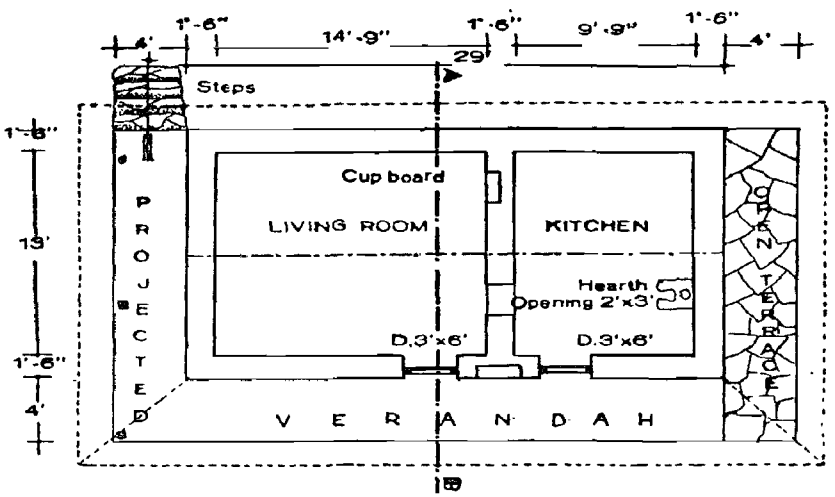
Front Elevation



Section on A-B

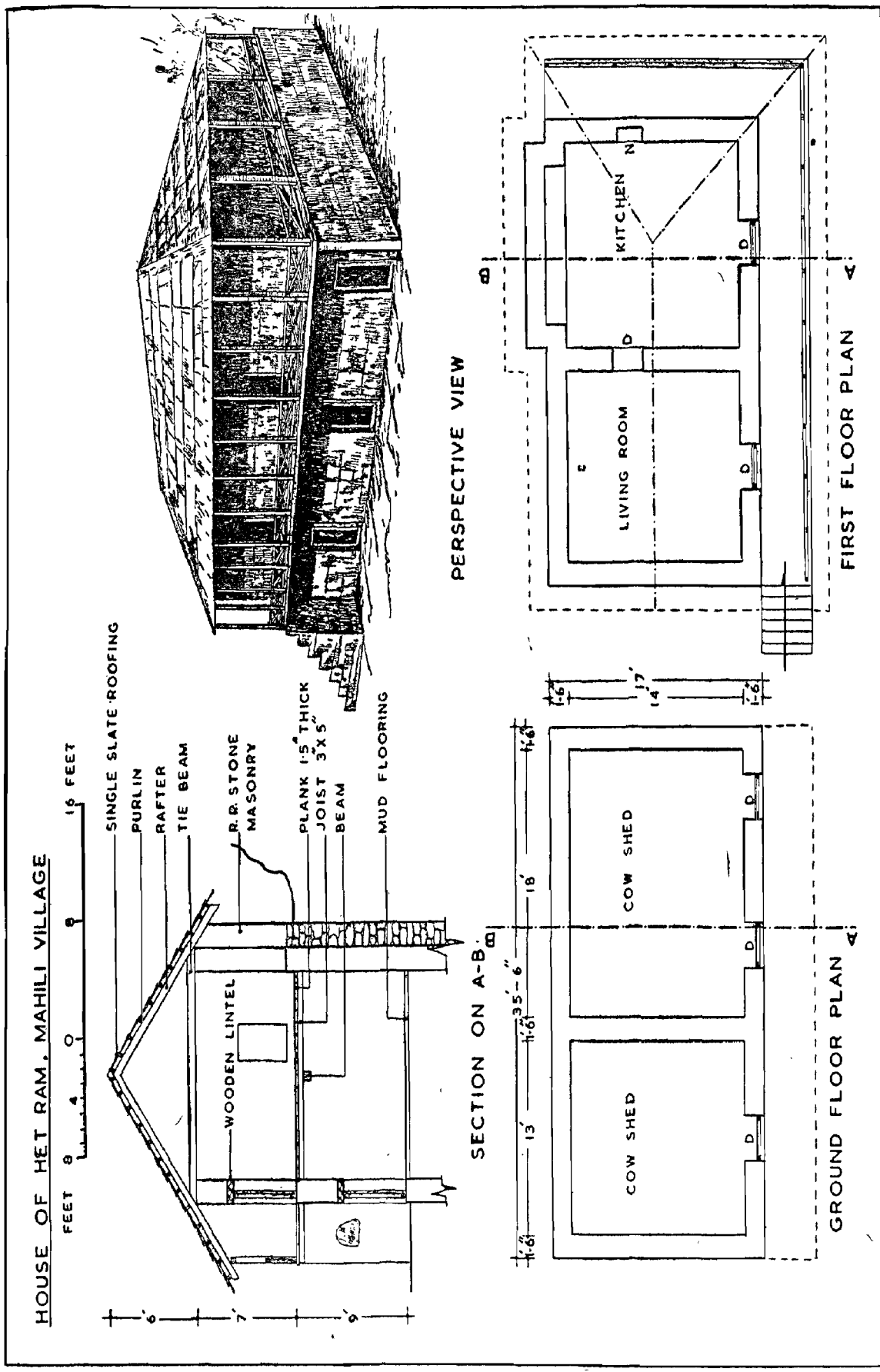


Ground Floor Plan

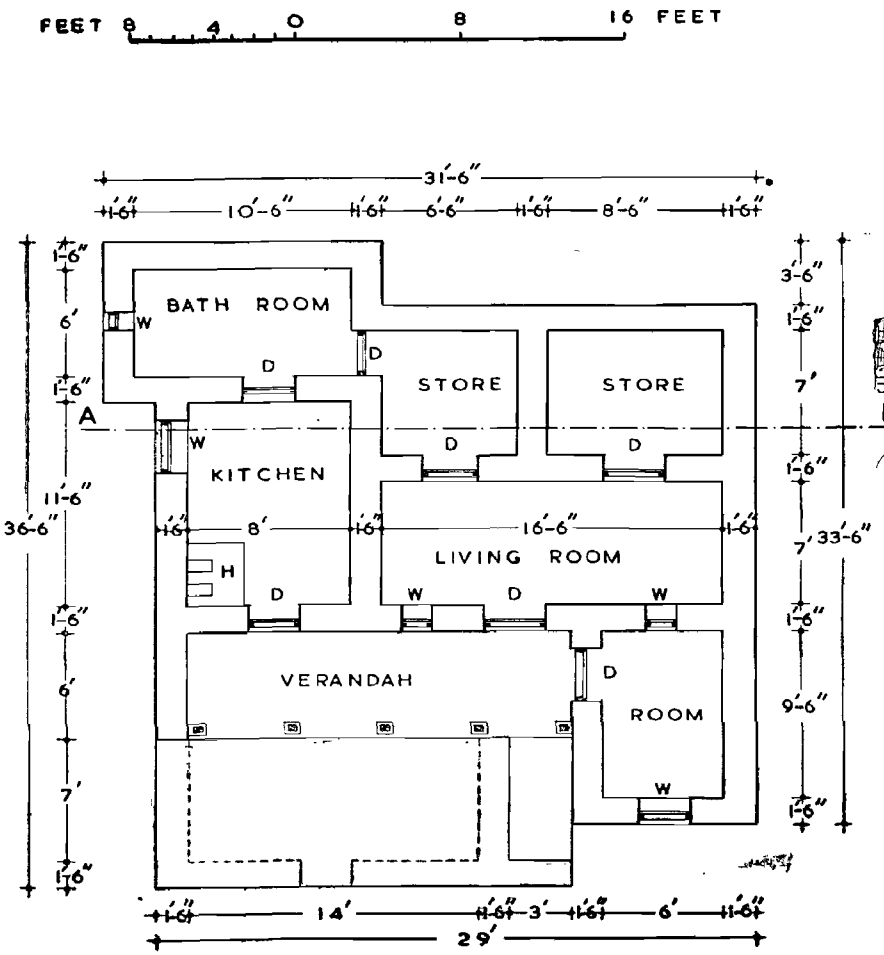


First Floor Plan

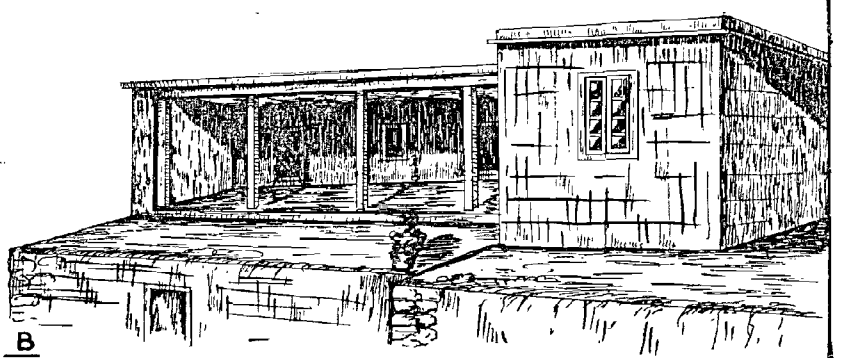
Kasumpti Tehsil



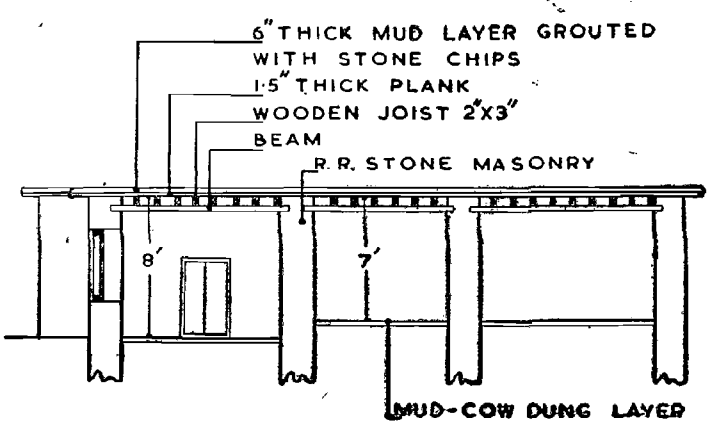
HOUSE OF KALI DASS, BER VILLAGE



PLAN

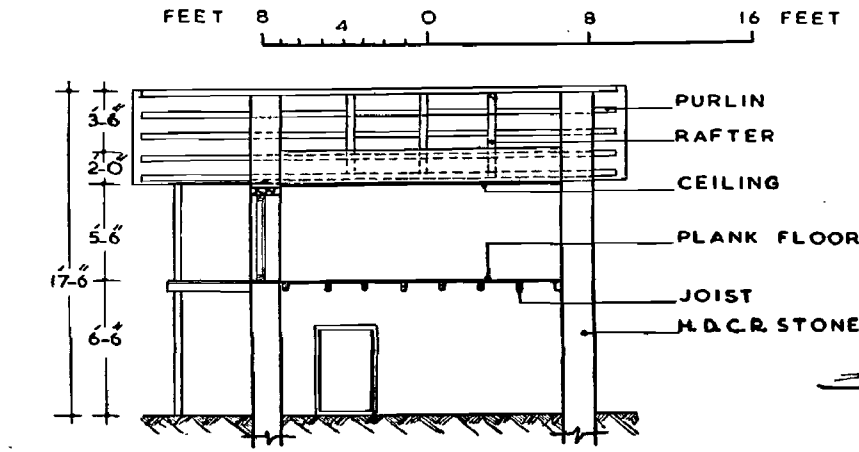


PERSPECTIVE VIEW

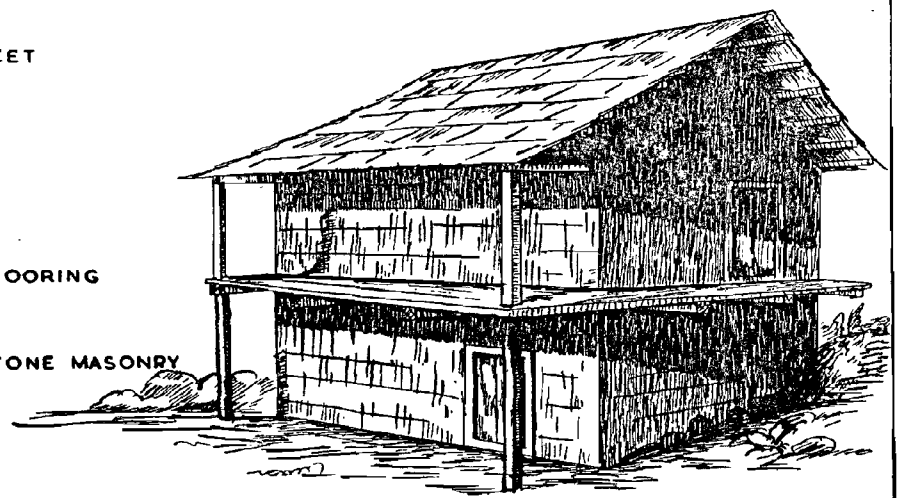


SECTION ON A-B

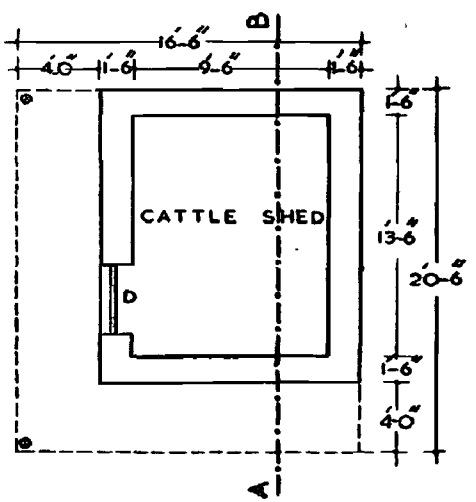
HOUSE OF MAST RAM, CHAUPAL VILLAGE



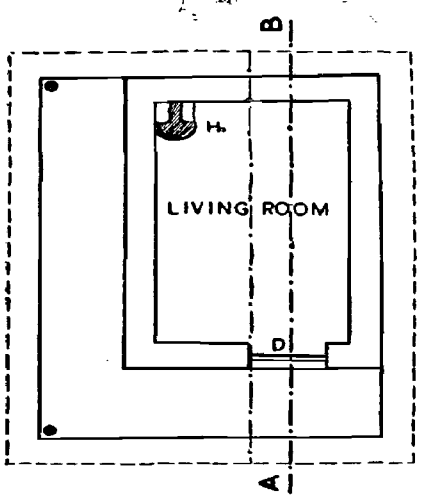
SECTION ON A-B



PERSPECTIVE VIEW



GROUND FLOOR PLAN



FIRST FLOOR PLAN

REFERENCES

D ..... DOOR 3'-6"X5'

H ..... HEARTH

Extracts and reprints

'VIEWS OF SIMLA', BY CAPT. GEORGE POWELL THOMAS, OF THE 64TH REGT. BENGAL INFANTRY

"A GOOD LAND, A LAND OF BROOKS OF WATER, OF FOUNTAINS AND DEPTHS THAT SPRING OUT OF VALLEYS AND HILLS; A LAND OF WHEAT, AND BARLEY, AND VINES, AND FIG TREES, AND POMEGRANATES; A LAND OF OIL OLIVE AND HONEY; ..... A LAND WHOSE STONES ARE IRON, AND OUT OF WHOSE HILLS THOU MAYEST DIG BRASS."—DEUTERONOMY, CHAP. VIII.

"*Architecture (Sacred)*: The places of worship, as well as the better sort of private dwellings in these hills, are constructed with gable-ended roofs, whose shape, though readily represented in a drawing, it is not easy to describe in words.

The walls are composed of hewn stone, and frames of pine planks of some four inches thick, and very narrow; one layer of wood dividing every fifth or sixth of stones. The wood is applied solely for the purpose of strengthening and binding the stone work, with which no cement, whether of mortar or mud, is used even in houses of three storeys high. The walls are commonly about four feet in width (a little less in English houses), and if the wooden frames are interposed with skill, they may be carried to any ordinary height of a three storeyed house, and in the towers of temples are sometimes run up to many feet higher than that, though after a certain height it is found, as might be expected, that the frames of wood should recur more frequently than in ordinary buildings. The shingle preferred for binding walls is that obtained from either the Deodar or the Keloo pine, which keeps a wall up for centuries.

The temples have, at one end of their gabled roofs a tower, often round, but sometimes square, and standing out, immediately behind the body of the building, like the tower of a village church at home. The roof is generally slated, but where slate is scarce, stout pine shingles (in other words, deal planks) are substituted.

This roof, whatever its materials, is put on, not in one unbroken plane inclining from the apex to the lower extremity, but in three successive layers, of which the lowest describes with the horizon an angle of perhaps 30, the second 45 and the two highest unite at an angle of probably 60 degrees.

In the front wall, supporting and embraced by the gable roof, there is generally a window of about five feet square, elaborately carved, and subdivided into what look very like pigeon holes. Frequently the tower to the rear of the main body is crowned (if it be a square tower) by a circular turret of six or seven feet in diameter, which in turn is covered by a pointed roof that terminates at the centre in a series of circular knobs or *bosses*, each, as it ascends, smaller than the last.

* * *

Architecture (Domestic): The walls of the houses about Kotgurh are all plastered with a yellow ochre, or a bilious looking whitewash, which is applied inside, as well as externally. The walls are similar to those of the places of worship above described; and their roofs, like those of the temples, are never flat, and are always constructed of deal shingles or of mica slate. Most of the houses a few stages beyond Simla are at least three storeys high. The ground floor in these cases is appropriated to the cattle; the second is applied as a depository for grain; and in the upper resides the family.

* * *

Above all is a garret in which fuel is kept; and a balcony, either open or enclosed, encompasses the upper storey. This balcony or "*tung*" as it is called, seems to be some four feet in width, and when it is enclosed, square apertures afford light on all sides to the interior. The upper apartment (and each storey consists of but one room, whether the house be of two, three or four storeys) always contains

Note:—All the thick square pillars that often stand in front of these hill temples are carved with snake deities, and figures holding snakes.

a square fire place, made of slate stones, and having attached to it—if it be intended, as it generally is, for culinary purposes, as well as for warmth—a mud stove with round holes for the reception of cooking utensils. If the roof of the dwelling be slated, a slab is removed for the passage of some of the smoke; or if the roof be of shingle, its egress is partially secured by one or two planks being made to shift on and off.

The storeys above the ground floor are always planked, though the planks are by no means invariably secured with nails. Sometimes a row of houses is built in conjunction, in which case one same "*tung*", or balcony, embraces all. In the houses of the few individuals whose means are considerable, balconies are attached to all the upper storeys; and of such tenements the interior apartments are of course comparatively neat and commodious. But the common order of dwellings are fearfully miserable and dirty, though in truth dirt in these parts is by no means a certain index either of misery or poverty.

The rooms in the dwellings of the chiefs or thakoors are often spacious, and—save in the particular of height, in which they rarely exceed six feet between the beams—well proportioned. The beams, by the way, are invariably disposed with their utmost width, and not their utmost thickness, subtending the roof, whose weight is often great to an unnecessary and even dangerous degree. The internal communication between the several storeys is effected by the medium of trap doors and ladders, which latter consist simply of a single thick plank (often triangular), in which at either side deep *notches* have been cut. The *kolees* and other low caste and indigent classes dwell in miserable hovels made of rude stones, and scantily thatched with rushes, or hay, or dry leaves. At Rampur, the capital of Bussaher, the houses on the banks of the Sutlej are slated; but in all other quarters of that city they are roofed with shingle.

Kotgurh is the only district in which slate is not generally used in roofing. In saying this I refer to the sections more immediately in our own neighbourhood; for in Koomharsain. * * * the mode of building is materially different, among these, the houses, though built of stone, consist of but one, or at the most two storeys, and have flat roofs covered with *mud* and *gravel*, which material is spread upon a layer of the bark of the birch tree. The Rana's granaries are commonly the most striking buildings in the Koomharsain quarter; they are nearly as lofty and spacious, though *not* nearly as ugly, as the *gola*, a huge mis-shapen granary at Patna.

In Sindoch * * * the houses have generally two storeys, and these flat and gable-ended roofs alike prevail. In the lower hills, stone walls are used, but with mud instead of wood for the binding. In those parts the thatched roofs is not uncommon, though it is wrought with but little skill or care. At Bilaspoor * * * however, the neatness of many of the thatched roofs reminds one of the style of roofing common about Calcutta.

Again, in the hills nearer Kabool, the houses are whitewashed, or neatly coloured with a reddish earth, in a manner that would seem to betoken a higher amount of civilization and comfort, than is in fact enjoyed there."

JOURNAL OF A TOUR THROUGH PART OF THE SNOWY RANGE OF THE HIMALA MOUNTAINS, AND TO THE SOURCES OF THE RIVERS JUMNA AND GANGES BY JAMES BAILLIE FRASER, ESQ., 1820, PAGES 165-166, 189-190, 195-196, 213-214, 258—260.

Jubbal Tehsil: "Close to this place, and under the small hill which we had ascended, there was an inclosure, and a temple of great sanctity, named Hāt-Gobēseree; the name of the image or deity being Gobēseree and the place being known by that of Hāt. Under a large spreading walnut tree in this inclosure, we had our tent placed, not interfering with any spot that could be polluted by this measure. This inclosure might be from twenty to thirty yards square, paved with slate, and surrounded by a dry wall: it contains two temples of unequal size, besides a number of small shrines or pagodas from eight to ten feet high. The temples are curious, but somewhat mean, built of dry stone, painted in some parts red and brown. They have * * * large overhanging roof slated, and elevated above them a large round canopy of wood; the cornices are ornamented with a fringe of wooden bobbins; wooden bells are hung at each corner, and there is a good deal of carved work about them.

The larger, or more sacred temple, may stand on a square of twenty feet, and has a paved and raised court before it; within, there is an

idol, tolerably richly dressed; we were informed that he has golden *bangles* on his arms, and much of that precious metal, as well as silver, about his person. He certainly glittered very much; but the place, as is customary in all Hindoo sanctuaries, was very dark; and we were only permitted to go as far as the door, whence we could not even tell what his figure was.

That riches should remain unrifled in a conquered country, and by such conquerors, is singular: and it proves the estimated sanctity of the place. The Ghoorkhas did not dare to rob the sanctuary.

The smaller temple has, I believe, less pretension to holiness; and we saw no one approach it while we remained there, although crowds paid their adoration at the larger. On the smaller, however, there is more carved work, but I know not whether it contains an image. The smaller shrines are, like the larger, built of dry stones, cut and shaped so as to compose the whole, which resembles the Hindoo pagodas in taste; some of them are neatly carved.

The whole side of the river, in the vicinity of this place, is studded with smaller or larger temples of the same sort. I made a sketch of the two large temples, and one of the small ones. The river Pabur, at present considerably greater than the Girree, a large, clear, and rapid stream, flows by this place; and the heat rendered bathing in its waters, this evening, a pleasant refreshment."

* * *

Kumharsain Sub-Tehsil: "The town of Comharsein is mean and poor; it does not consist of more than a dozen houses, built like the rest of the hill villages, of dry stone and wood, * * * The Rana's house is similarly built, but large, and plastered with a kind of white and shining clay: which we have occasionally before remarked, particularly in the interior of their buildings. Above, it is wholly surrounded with wooden balconies closed in with neatly carved wooden screens, forming the *zenānā* One of the ladies appeared for a moment at an open window: but there was nothing remarkable in her appearance. Her complexion was yellow, like that of a mulatto; and she had, as the other woman have, a handkerchief on her head.

It is strange that Comharsein should be so poor a place; as, besides being the residence of a chief, it commands one of the chief *ghats* to the Sutlej.

* * *

Our encampment was in a small field, from which the grain had been reaped, just by the temple of Manjnee: the village was a short way above, and is small, though neat: on one hand was a sort of fort, or house, called Coatee.

The temple was remarkably neat, * * * as usual: it is sacred to the goddess Bhowannee. The whole of the interior is sculptured over in wood. with infinite labour, and probably forms a detail of the exploits of the deity: with these I am wholly unacquainted; but she seems to have been frequently engaged with monsters of very uninviting shapes. That portion of the carving, however, which neither represents the human nor animal figure, is by far the most beautiful. The whole roof, which is formed of firewood, is richly cut into flowers and ornaments entirely in the Hindoo taste, with a sharpness and precision, yet an ease that does honour to the mountain artist: and, considering his tools and materials, it is truly wonderful. The shrine of the goddess was in the centre, and a small pair of folding doors, opening, disclosed her; but the outside apartment, containing the sculptured work, was filled with people of all sorts, apparently without any scandal or sense of impropriety to the priesthood, who inhabited the interior. There were several small pagodas, similar to those at Hāt-Gobēseree, and much curious sculpture in stone; but it was wholly of a schistose and crumbling nature, which appeared to be mouldering into dust, and therefore could not be very ancient.

The scene in which this temple is placed is beautiful: there cannot be a more picturesque or various landscape, in the wild mountainous taste, than the opposite hills afford; cut into alternate rocky ridges and rich dells, as they stretch from Whartoo downwards, forming the south-eastern side of the fine valley we descended. The tints of green, yellow, and brown, as varied in the corn, wood and rock, could not be more happily blended, or form a sweeter whole."

* * *

Theog Tehsil: "The external appearance of the houses of these hillmen has been already described: we entered many since that time,

and observed their internal economy. The lower stories are devoted to cattle and lumber; and in the upper the family lives. The rooms are never very large, but they are remarkably snug, comfortable, and clean: they are floored with broad and well smoothed planks: the walls are plastered with mud, and frequently white-washed, and ornamented with red figures. In the centre there is always built a *"choolah,"* or fire-place, for the purposes of warmth, as well as for dressing the food of the family: this cooking place is uniformly constructed of earth and stone, and well purified every day with a mixture of cow-dung and fine earth, which is washed over it. In this room, and around the fire-place, or in one corner, the family sleep * * *.

Sometimes several houses are constructed so as to open into one another, or to communicate by the balconies, which always surround the upper storey. These are always constructed of fir-tree planks, put together often with a skill that would not shame an European workman; and they form very convenient additional chambers and passages to the body of the building. Little furniture is found in these houses; little indeed is ever seen in a Hindoostanee house; a few vessels for cooking and for containing water, a few boxes for holding corn, with jars of various sorts, are all we ever met with. I once saw a child in a sort of cradle.

These houses are entered by a very small door, seldom more than three feet six inches to four feet high, and half that breadth; and the ascent to each story is by means of a notched stick, which, as there is generally little light, and as the lower apartment cannot be clean, from its being allotted to cattle, affords a very uncertain footing.

Windows indeed are neither numerous nor large; having no glass, they cannot shut out the cold without excluding the light, and thus, small openings, occasionally closed with a piece of board, are the substitutes.

Chimnies, to give a passage to the smoke, they do not think of, nor do they seem to care in what manner it makes its escape. Want of light and of air must in one way or other occasion dirt: although they keep their rooms neat and clean as far as the eye reaches, they cannot by any care make up for a free ventilation * * *.

The habitations of these people are always in villages; a single insulated house is never seen, or very rarely. These villages consist of from five to twenty houses, some even larger are met with. They frequently form a picturesque object at a distance, crowning some height, and hanging over some glen, or intermingled with wood on the uprising face of a hill: every one according to its size has one or more lofty towers overlooking the village; these are, as has been heretofore observed, temples; some are very large and high, and are commonly ornamented with much art, and frequently with some taste.

* * *

Rampur Tehsil: "Rampore (for what reason, I know not) is a place of considerable sanctity. It possesses several temples for Hindoo worship, of tolerable construction, viz., one to Mahā Dēo, to Nērsing, to Gonēsh, to Hoonoomaun, and smaller ones to inferior deities. That to Nērsing has been lately erected, and is neat, though not large. To officiate at these shrines there are a sufficiency of Brahmins, and a host of *byragees, gosseins, sunyasseas,* and other descriptions of *fuqeers* and mendicants; indeed, they are the only people who seem to have escaped the desolation, and yet inhabit the place. The houses of the priesthood were neat and comfortable, and their persons and circumstances were apparently thriving.

There are two royal residences in Rampore: one appears to be far more ancient than the other, and was lately occupied by the dowager Rānee, with her family and court. It is built on a rock overhanging the river, somewhat as a stronghold; but in the interior is like most other hill-chieftains' houses, containing a square court, around the interior of which small apartments are ranged in the Hindostanee fashion, chiefly open to the court, except those intended for the women, which are closed by screens of wood, finely cut into flowers and various figures, so as partially to admit the light without exposing those who are within: in the centre of the court there is a holy pagoda. The second palace is a more modern structure, and though considerably more elegant and better built and finished than the other, it does not depart much from the usual style in the interior dispositions. It stands at the north side of an inclosure that extends about 150 yards along the highest stage or terrace of the projection, on which the town is built, and though not more than half

that breadth, stretches quite to the foot of the lofty precipice that frowns over the place. The terrace itself overlooks the whole town and the river which flows around it. The building is a square, the front of which, looking to the southward, is very highly ornamented with rich carved work in wood; in the centre, above the entrance, projects a small balcony, in which the rajah sat and showed himself to the people; the other three sides are rather plain, and with their slated penthouse roofs, which do not project far above the walls, bear a great resemblance to those parts of a common English house which are least exposed to public view. There are no towers at the corners of this square, as in most other hill castles, nor much to give it a resemblance to the usual fashion of the country: from the left or east side of the front a projection runs out of three storeys; the two lower are open in front, exposing the interior; the upper-most is shut in with carved wooden screens of trellis-work, and the whole front of this projection is most richly ornamented in a similar manner. This wing was chiefly appropriated to the use of the zenáná. On the opposite side, also projecting forwards, was placed the summer-house in which we took up our quarters; and this, though small, was exceedingly neat and well ornamented. Another small building in the same line, I believe a shrine to some deity, projected to a length that corresponded with the extent of the left-hand wing. The space between those two rows of building in front of the main body of the palace is paved as a court.

Above the summer-house, and behind the palace, several venerable peepul-trees extended their shade in a very refreshing manner, and gave to the whole a truly delightful cast of cool repose and summer quietness, notwithstanding the positive heat which we could not help acknowledging.

Both these palaces are built in the same manner, viz., of dry stone bound with wooden beams, as before described when speaking of the buildings of the country, but that now under consideration is by far the best constructed which we have seen. The roof, in particular, attracted our attention from the tasteful way in which it was disposed. The slates were large, of a deep purplish blue, and placed with the utmost regularity; each cut square, and the joining covered with a long piece like an isosceles triangle with its base upwards, and the apex cut off below; rows were thus formed, and kept accurately straight. I never saw the best slating at home produce any thing like so good an effect. It was impossible to look at the carved ornaments in wood, the pillars, the screens, the cornices, or the smaller and nameless pieces that everywhere covered the walls in front, without being struck with admiration at the beauty of their execution. The wood used was wholly fir, of the same species; I believe it to be the larch; and we were told that the screens and most of the ornaments were imitations of those similar works in marble which beautify the palace in Dehlee. The interior, though corresponding more nearly than in the other palace with the beauty of the outside, has nothing to merit description. Suites of small closed and open apartments, all looking into the court in the centre, form the detail of all the three storeys, which, like most native buildings, are low, and when not entirely open, dark. In the inclosure where the palace stands there are several small houses which were built as places to sit in, and enjoy a cool breeze when it blew, or as offices and quarters for the attendants of the royal family.

There are no other buildings in Rampore that have the least title to notice. The houses of the *wuzzeers* are mostly in ruins; and, as before observed, the houses of the Brahmins and religious castes alone preserve even the appearance of comfort."

TOURS IN THE HIMALAYAS VOL. I, BY MAJOR SIR WILLIAM LLOYD AND CAPTAIN ALEXANDER GERARDS, 1840, PAGES 167—171, 196-197

Kumharsain Sub-Tehsil: "21st May Koteghur, we have now been long enough at Koteghur to form nearly a just estimation of all that it offers, and I have no hesitation in saying, that, if society could be obtained, it is the place where I should desire to pass the remainder of my life. Its climate is temperate, its sky deep yet brilliantly blue, and its surrounding country full of majesty and sublimity. All these give a joyousness to the mind, and health to the body. More cannot be asked, nor can more be found. It is only at this elevation, and in this parallel of latitude that it exists.

Koteghur is situated in lat. 31°19′ N. and long. 77°30′ E. It is upon a slope of the Wartoo mountain. The Rauj of Komarsain lies to the

westward of Koteghur, and is separated from it by a ravine between 3,000 and 4,000 feet in depth. Enormous mountains rise on both sides of the Sutluj and confine it to a narrow glen, through which it runs in a large body, with great rapidity. On the right bank of this river, northward and westward, are the states of *Kooloo, Sookaid, and Mundee, one confused* mountainous mass, whose elevation varies from 10,000 to 12,000 feet, and almost entirely obstructs the view of the Snowy Himala, a small portion only of which is seen, bearing from N.8° E. to N.28° E. The broad flanks and the curious flat summits of some of the mountains, wherever there is sufficient soil, are cultivated with an industry which is almost incredible. The fields on the slopes are, as I have already mentioned, long, narrow strips of ground, which rise one above another like terraces to great elevations, even upon very steep declivities. The supporting wall of each is two, three, four, five or six feet in height according to the abruptness of the place. They are levelled with great care and are watered by rills conducted sometimes from a considerable distance. They generally run from the highest, and overflow every part successively to the lowest. The effect of aspect and elevation upon the cultivation is very remarkable, for while on the uplands the produce is green, it has been reaped and carried at the base of the valley. Indeed this is extraordinarily exemplified in two gardens which Captain P. Gerard has at Koteghur, one of which is near the house where he resides, and the other in the dell, 4,000 feet below. In the lower one plantains and other tropical fruits are abundant, while in the upper English fruits are equally plentiful.

The hamlets are seldom of more than ten or fifteen houses, generally not so many. Single houses are numerous, and from their being scattered amongst the fields give an aggreeable variety to the bold landscape. In those districts which border the plains, the dwellings, which are mere huts, have flat roofs; but here, where snow always falls in winter, the roofs made either of cedar also called Deodar, or of slates, are pent. They are of two or three storeys the lowest of which is invariably used for cattle, and when there are three, the second for grain, and the third, occupied by the family, is surrounded by a covered gallery, in which its inhabitants are generally seen sitting when at leisure. All the temples, and many also of the larger houses, have roofs * * * which gives them a singular and pleasing appearance. The pitch of these roofs is very great, being formed by the disposition of planks into two concave curves, joined at the summit, and diverging down to the walls, where they project horizontally three or four feet into eaves. The walls are of wood or stone, sometimes both, and the buildings are very substantial."

Rampur Tehsil: "Sooraan is the summer residence of the Rajah of Bussheer. It is pleasantly situated on a wooded ridge from the Himalaya, which sweeps down to the Sutlej three miles distant. On the right bank of this river the mountains rise abruptly to a great altitude, and are covered with snow. The Shatool Pass is only twelve miles from here. It is said to bear S. E. The glen of the Sutluj trends eastward, the river flowing westward, and forcing its way through the snowy mountains.

The buildings at Sooraan may be called handsome, for in this country much is not to be expected. The edifice most deserving of notice is a temple close to the Rajah's residence which consists of several houses. They are * * * with pent-roofs, balconies, and some beautifully carved wood, which have, if nothing more, at least novelty to give them effect. The temple is dedicated to Kalee. It is surmounted with gilt ornaments. We were informed that human sacrifices were offered here in former times to this goddess, but have been discontinued since the expulsion of the Goorkas.'

'IN THE HIMALAYAS", BY C.F. GORDON CUMMING, 1886, PAGES 351

Rampur Tehsil: As I before said, this march is very beautiful, and quite unlike any other, from the purely tropical character of its vegetation, the enormous cactuses which everywhere clothe the rocks, and the silky blossoms of the wild-capers. Nevertheless we were right glad when at length we caught sight of the town of Rampore, with its *jula,* or rope bridge, its temples, and all its quaint hill houses, with their overhanging upper storeys and balconies of carved cedar-wood. The foreground was peculiar, having a great gallows beside the river, where the Rajah of Bussahir hangs malefactors.

* * *

His picturesque palace is perched on a rock overhanging the river, and just opposite is his *zanana,* the balconies of which are entirely closed in with carved wood. He generally, however, prefers living in his summer palace at Serahan, much farther up the hill.

All the houses in this part of the country are more or less alike. A square base of stone acts as granary and stable for cattle. A staircase outside leads up to an overhanging balcony which surrounds the wooden dwelling-house. Perhaps a second still wider storey is above this. The roof is peaked, and slated with large slabs of grey shingle or slate, or even of cedar-wood. All the gables are elaborately carved with hanging ornaments of wood-arabesques, or curious heads."

LIGHTS AND SHADES OF INDIAN HILL LIFE BY F. ST. J. GORE, 1895, PAGES 10-11

Theog Tehsil: "Sending our ponies on ahead, St. G. and I started off on foot, for we intended to make a detour from the road to a village called Jenog, which lies over a ridge and is quite hidden from the Theog bungalow. It is picturesque village ***. The steep roofed house belongs to the deota, or village god. In most villages throughout the Himalayas there is some prominent house of this kind on which the inhabitants expend their skill in architecture and carving, and which they adorn with the horns of wild animals they have killed, from ibex and serow to the smaller karkur and chamois-like gural. Many of these god-houses are extremely picturesque but though we frequently asked the people for what purpose they were used, we never satisfactorily found out. All we could learn was that the god *did* live in them; but at any rate he was not exclusive enough to prevent men and women living in the house as well.

In some villages which we saw later these god-houses are detached and more in the form of temples, and in these the nearest approach to a god that I could find was a stone smeared with vermilion. No objection whatever was shown on any occasion to our entering these village temples, which are more in the form of carved wooden chalets than places of worship. Most of them were quite unattended by any priests or officials, and except for the above-mentioned vermilion-smeared stone, we could find no emblem of divinity."

L/B(N)14SCO(HP)—21(a)

PUNJAB STATES GAZETTEER, SIMLA HILL STATES, 1910, PAGES 13, 26, 42-43

Kumharsain Sub-Tehsil: "Houses: A *zamindar's* prosperity is generally to be gauged by his house. The people of Upardes and Chagaon *parganas* have the best houses. These are usually three-storeyed, the ground floor being used for cattle, the middle for sleeping, and the upper for working and cooking. There is often a separate corner set aside for washing. The upper storeys have verandahs, and if good wood can be got the houses are well and substantially built."

Rampur Tehsil: *Temples*: The *deota* of a small hamlet usually lives in a pile of stones near the houses, which is called a *than* and can be recognised by the pieces of rag tied to it. In more important places, where there are Khund Kanets, the *thairi,* a sort of platform, takes the place of the *than.* The marriages and other religious ceremonies are conducted on the *thairi.* Only the *pargana deotas* have temples. These are usually square buildings with high sloping curved roofs from the eaves of which depend rows of wooden bobbins. Some are ornamented with good wood carving. The doors of a temple face either north or east, or else there is a door on each side. Inside is an image of the presiding deity. This in the case of a male *deota* represents the head and bust only, and in that of a female *devi* the whole figure. A *devi* often has from four to sixteen arms. Some are placed sitting on a dead body, or riding a lion. Most important temples have other images bearing the names of well-known Hindu deities such as Shiv, Indar, Ganesh, etc., who are supposed to act as the companions or attendants of the temple deity. Worship is conducted either twice or three times a day and worshippers, who have special requests to make, present offerings. These are of various kinds. Well-to-do men bring gold or silver ornaments, clothes or money. Others grain, fruit, and the like. Very often a goat is sacrificed of which a share is given to the person making the offering, and the remainder distributed among the priests. Offerings can be made to a god at any time, but the best time is during the months of Baisakh, Bhadon, or Magh. Offerings to goddesses must be made in Chet or Asauj, or on a Tuseday, or on the day of the full moon, or on the eighth, ninth, or fourteenth days of the

moon. The offerings go into the temple treasury, and the worshipper pays the priests a few annas in addition. The mode of worship is similar in the case of all *deotas* of whatever kind.

* * *

Villages: In the hills cultivation is necessarily scattered, and this prevents the formation of large villages. The people live in isolated hamlets near their fields. The administrative unit is always a group of such hamlets. In Bashahr the group is called a *ghori*, and in the smaller States a *pargana*. A Bashahr *pargana* is a collection of *ghoris*. In upper Kanawar, where the people do not depend entirely on cultivation of the soil for their livelihood, some of the hamlets are comparatively large.

Houses: The house of an ordinary *zamindar* in the lower hills is one-storeyed, white-washed, and thatched, but this type is not found in Bashahr. In the Sutlej valley about and below Rampur the houses are similar to those of the villages around Simla, two-storeyed and roofed with slates or shingles. Higher up still, houses have three storeys, of which the lower (*obra*) is used for the cattle, the middle (*phar*) as a storehouse and winter sleeping room, and the upper, which is surrounded by a broad verandah (*dafi*), as the general living place of the family. The roofs of these buildings are curved and sloping. In Kanawar the two-storeyed house is reverted to, and this generally has a flat roof."

"SIMLA PAST AND PRESENT", 1925 BY SIR EDWARD BUCK, PAGES 223—245

"I will now ask the reader to wander out from Simla along the Mashobra road, and notice the principal houses by the way. The first house after leaving the corner where the toll bar once collected its dues about three miles from Simla where the real forest road begins, is 'Maisonette' (once the 'Hermitage') Built by the late Mr. Horace B. Goad, it next passed into the possession of Colonel J. Robertson, and from him into the hands of the late General A. S. Hunter who considerably improved the place. For some years it has been the property of the Nawab of Maler Kotla. Below 'Maisonette' lies 'Fairlawn,' a picturesquely situated house, in early years owned by Mr. R. Dixon, of the Foreign Office, who laid out the fine grass terraces from which the place is named. Sir George White and his family occupied 'Fairlawn' for several months, and the then Commander-in-Chief, who was a wonderful walker, started on several of his pedestrian feats from this residence. Later on it was purchased by Mr. B. Bevan Petman who sold it some years ago to the late Nawab Fateh-Ali Khan, Qizilbash of Lahore. A mile further is 'Holmdale' with its beautiful terraced gardens, built by Mr. A. E. Jones, and lying close to the rugged cliff where from time immemorial the 'lamergeyers' (Himalayan eagles) have reared their young in eyries under the overhanging rocks. Popular belief has it indeed that this was the cliff over which 'Tertium Quid,' in Kipling's well known story, met with his fatal fall. This house has since been rechristened 'Apple tree house,' and having passed through several hands it is now owned by Mr. R.L.B. Gall, Consul for Mexico in Calcutta.

Close to the quiant little Mashobra bazaar are the buildings erected in 1866 by Mr. Gilbert Campbell (afterwards Sir Gilbert Campbell, Bart.) in which he resided for several years. Later on this property passed into the hands of Mrs. Martin Towelle, and was known as the 'Gables Hotel.' It was regularly rented by Lord Lytton, who with his family made it a constant summer resort, Lady Lytton remarking in her dairy 'the smallness of the house' the Gables 'enabled one to get rest and peace;' and it was also engaged on several occasions by Lord Dufferin and his family, and it has always been a favourite house of call with the Simla public. After passing into the hands of Mr. Laurie it was acquired by Mrs. Hotz in 1912, and has since had a new block added to it and is a most comfortable suburban hotel. Close to the hotel is 'Black Rock,' built by Mrs. Towelle, which commands a splendid view of the snows, and has numbered among its tenants the late Bishop Matthews, Mr. Steedman, C.S., and Mr. Gordon Walker, the Commissioner of the Delhi Division. It was at this house during a summer season in Lord Dufferin's Viceroyalty that his Aide-de-Camp, Lord Herbrand Russell (now the Duke of Bedford), kennelled a pack of German hounds he had specially imported from Europe with which to hunt the Indian boar. But the experiment, chiefly owing to the unsuitability of the climate, did not prove a success; many of the hounds died, and the pack was broken up. On the spur above the 'Gables' is 'Mashobra House,' the oldest of all the houses in the neighbourhood, which was built in 1859 by a Colonel Mackenzie, when he

migrated thither from 'crowded Summerhill' on which only three European residences stood at that time. The property is extensive and well wooded and Mrs. Martin Towelle, who acquired the house in 1864, resided there for thirty-two years till her death in 1896. Her son, who was in England then promptly sold the property to Mrs. Laurie of Laurie's Hotels, who at that time also owned 'the Gables.' Some 14 years later Mrs. Laurie resold Mashobra House to Mr. C. T. Allen of Cawnpore, who practically rebuilt the old house and completely transformed the gardens and wood lands into their present attractive state. It was shortly after this time that Mrs. Hotz purchased the 'Gables Hotel', and it is largely due to these two Mashobra property owners that the amenities of this adjunct of Simla have developed to such an extent. This suburban resort can now boast of a *picturesque* little English Church, erected by Mr. C. T. Allen in memory of certain of those who fell in the Great War, a small hospital and dispensary, a sanitary bazaar, and various excavations and erections on a considerable scale, indicating that at some future date the authorities in these parts contemplate the installation of electricity and an improved water supply. 'Bendochy,' a delightful little cottage once occupied by Sir Henry Brackenbury, and afterwards secured by the United Service Club as an annexe for its members lies just below Mashobra house, on the Club parting with the property when they purchased 'Carignano.' Mrs. Hotz secured it and is living in it at the present day. On the next spur is the villa 'Rahat Mahal' (the abode of bliss), appropriately so called by its owner Mr. T. Bliss. 'The Peak,' which has passed through the hands of several proprietors since 1863, and which Lord and Lady Ripon occupied for some days in 1884 and Lord and Lady Lytton in 1887, was for some time the property of the late Mr. J. L. Arathoon. It was then purchased by General H. A. Abbott, formerly Colonel of the 15th Sikhs, and he resided there until his death which occurred in June 1924 when he was 75 years of age. The house stands on a commanding hill in some fifteen acres of ground and possesses a striking view of the snowy range. 'Sherwood' and 'Cosy Nook' the next two houses, are both charming and popular picnic resorts, and their late owner, Mr. (afterwards Sir) A. M. Ker, an enthusiastic amateur gardener, who purchased 'Sherwood' from Mr. Schlich, the Inspector-General of Forests in 1888, laid out perfect lawns, forest paths, and a particularly fine orchard of English fruit trees. The estate comprises over thirty acres of pine forest and is extremely picturesque. Lady Curzon spent several weeks there while the Viceroy was on tour, and Lady Ker usually resides there for several weeks each summer.

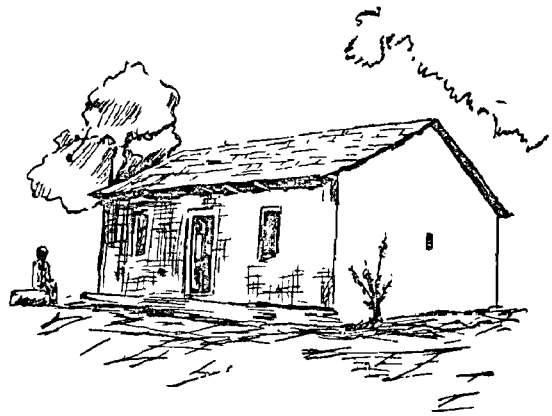
We next come to 'Kenilworth,' one of the largest and most valuable of the Mashobra estates. The place was formerly owned by the late Mr. F. Peterson, of the Simla Bank Corporation, and until 1889 was known as 'The Refuge.' The late Colonel Sir A. R. D. Mackenzie, however, then purchased the property, built an imposing house and also planted out a large orchard and grounds. 'Kenilworth' has been occupied from time to time by several Commanders-in-Chief, and is a perfect country residence. The beautiful weeping willows which adorn both the 'Kenilworth' and 'Sherwood' grounds were propagated from cuttings taken from a tree which once stood at the entrance to 'Bentinck Castle' (now Peliti's hotel). This tree was grown from a slip originally obtained from the willow which grows over Napoleon's now empty tomb in St. Helena, and to which I have already alluded in my account of old Simla houses.

When Sir Alfred Mackenzie died the house became the property of the Maharaja of Nabha, and it has just passed into the hands of the Maharani of Faridkot for the sum of a lakh and a half. Another noticeable house on the ridge is 'Honington,' built by General Sir Edwin Collen, a former military member of Council, who possessed the ground for over thirty years. The house was bought some years ago by the late Kaur Sahib of Patiala and is still owned by his family. The ground on which 'Belmont' stands near by was once owned by Mr. A. M. Jacob, and the house was afterwards built by the Rivett family. We next come to 'the Villa Carignano.' In 1909 the United Service Club purchased 'Bendochy' already alluded to, but its popularity soon resulted in the demands being too great for the accommodation it provided, and in 1920 'Villa Carignano,' a striking house constructed in the Italian style, situated two miles from Mashobra village was purchased from Chevalier Peliti, the owner of the Grand Hotel. The house was refurnished and

a wing added, and it now consists of several double bedded rooms as well as bachelor quarters all of which are usually occupied by members at week ends. The property which comprises about 23 acres is situated on the top of an isolated and well wooded hill, and from the house and grounds is obtained a magnificent view of the country on all sides with the snow clad mountains in the distance on the north and east. 'Carignano' is only four miles from the Naldera golf links, and within its grounds is a huge tank constructed in connection with the Simla waterworks scheme. The last house on the Mashobra Spur is 'Hillock Head,' about nine miles from Simla. The land formerly belonged to the late Mr. E. E. Oliver (author of 'Balooch and Pathan'), but about thirty years ago it was purchased by Mr. A. Coutts, and now boasts a market garden which supplies Simla with the choicest English fruits, flowers, and vegetables.

About four miles further on lies the beautiful spur of Naldera, formerly called 'Nal Deo,' now possibly best known for its golf links, the course being perhaps one of the most sporting in the east. Crowned by a magnificent grove of deodars Naldera is carpeted with fine springing turf, and used to be a favourite camping ground of Lord Lytton's. Lady Lytton writing from Naldera on 16th June 1878 says 'The girls, Madamoiselle, and I came yesterday. This is a prettier camp than last year all amongst the trees, and I enjoy sitting out in the shade, for these are the last summer days as the monsoon has broken at Bombay. The moonlight at night is also lovely, and we have dinner outside, as well as other meals. The Colleys (Colonel Sir G. Pomeroy Colley was Private Secretary) came out last night, and saw a leopard on the road, and my maid Ossy heard some of the servants saying they were chasing a bear late at night, but this I don't believe, only it prevented Ossy from sleeping for fright.....".

Lord Dufferin's family also went out several times to Naldera. Lord Lansdowne made more than one visit to the spot, and Lord Curzon with his family regularly proceeded there for several weeks in June, and his youngest daughter Lady Alexandra Curzon whose marriage to Major E. D. Metcalfe has recently taken place in London, was named after the spot."



Notes on house types and residential Pattern of villages

BATAL VILLAGE, ARKI TEHSIL

Residential Pattern: The village is situated about two miles away in the south of Arki. The Simla-Arki-Kunihar motor road passes by.

The main habitation of the village is on a flat level ground, where houses look huddled together, and quite near to them in the western direction, there are some houses scattered over the gentle slope of the hill. Some villagers live a little away in two *pattis* of the village, named Rehd and Pokhtu. The village is mainly inhabited by Brahmins.

House Types: Majority of houses are double-storeyed and cattle-sheds are built separately from the residential houses. Cattle-sheds are mostly adjacent to the residential houses. Some households keep their goats and sheep in the ground floors of the residential houses. The tendency of building houses contiguous to each other has created a lot of congestion in the village. The majority of houses have G.I. sheet roofing and in others there are khaprail and thatched roofs. Doors are kept facing the east and the west and rarely towards the north. No door is kept facing towards the south.

Almost all the houses are rectangular in layout and have a *beeh* with two rooms, inter-linked, in the ground floor and similar accommodation in the upper storey:

Beeh: This is a big room in the ground floor. It is used for sleeping or for use by women during their menstruation period. Agricultural implements and many other odds and ends are kept in the *beeh*. Shoes are invariably put off in *beeh* before entering the upper storey.

Obra: Rooms inter-linked with the *beeh* are called *obras*. In some houses *obras* are used for keeping cereals. Child birth also takes place in *obra* and in a few cases, cattle are also kept in the *obras*.

Paura: A big room right above the *beeh* is called *paura*. It is approached through stairs from *beeh*. *Pauras* are quite airy with windows in the front. This is used as a sitting room and guests are entertained in the *paura*. This also serves as a sleeping room during summer.

Bawri: Rooms inter-connected with *paura* are called *bawri*. These rooms are used for sleeping and culinary purposes. Small windows are provided for light and air.

Material and Construction of Houses: Material for house construction is locally available excepting G.I. sheets for roofs, which are procured on permits from Simla. It is a general complaint of the people that they experience great difficulty to procure timber from the forest. Lade-ki-Banye is the only nearest forest from where they get timber. They prepare doors and windows of *tuni* wood which is found in their own lands. *Kakar* and *kher* wood is their second preference for doors.

Whenever a new house is to be constructed, *muhurat*—an auspicious time, has got to be worked out from the *purohit*.

First of all, digging of the foundation is carried out by the un-skilled labourers. The foundation stone laying ceremony takes place strictly in accordance with the *muhurat*. On this day, some *havan is* performed and *gur* is distributed among all present and the presiding *purohit* is given *dakshna*. The foundation of the house is dug two to three feet deep and it is filled with stones.

After the foundation has been filled with stones, a wooden frame of planks is prepared to erect mud walls. The frame is filled with a mixture of moist clay. It is then rammed till it becomes hard and thoroughly compressed. This work is done by all the members of a household including women and often relatives also participate by way of help. The walls are thus erected to the roof level keeping necessary space for doors and windows. For wood work, a carpenter is employed simultaneously. The height of the front and back walls is less than those of the side-walls, because the roofing is angled on these walls. At the apex, a wooden beam is placed which serves as a ridge pole. Wooden rafters are then spread and complete frame prepared on which the roof is laid.

In the upper storey, planks of either *kher*, *kakar* or *tuni* are used for flooring over which thick layer of mud is beaten to make it smooth

and strong. In the ground floor, no window is kept, neither in the *beeh* nor in the interconnected rooms.

The space left in between the ceiling and roof of the upper storey is called *karanchi* and it is used for storing of articles.

Cattle-sheds separately built from the residential houses are known as *gaiwaini*. The attic in the cattle-shed is used to store grass.

After the completion of the house, it is plastered with indigenous clay.

Gharasni: On completion of the house, a ceremony known as *gharasni* or *griha-privesh* is performed. *Janeo*, a sacred thread is tied round the house and *jap*, *path* and *havan* are performed to sanctify the house. A feast is arranged and Brahmins and relatives are invited. The masons and carpenters are given their dues. It is only after this ceremony that the family moves into the new house.

Local names of different parts of the houses are—

Neev . . .	Foundation
Dewal . . .	Door steps
Darwaja . . .	Door
Kand or Bheet .	Wall
Dewari . . .	Window
Chhat . . .	Roof
Pairee . . .	Stairs
Obra . . .	Room in the ground floor

SHAKRORI VILLAGE, SEONI SUB-TEHSIL

Residential Pattern: The houses have come up in no regular way. There are no proper lanes and these clusters of houses are linked with each other by rough and ill marked passages and very often one has to cross some fields or water channels to get from one house to the other.

House Types: More than half of the houses are two storeyed, and the rest are single storeyed. There are 12 houses of the Scheduled Castes, many of them have thatched roofs. The houses of the *swarns* have roofs of slates, and G.I. sheets. The *obras* or the cattle sheds have straw roofs. New residential houses have windows with glass panes and ventilators. It is during the last decade that slates and G.I. sheets have come up for more use.

The ground floor of the house divided into two parts, are called *biyoon* and *akhal*. *Biyoon* refer rooms in the ground floor which are used for sleeping during hot summer months; or for use by the women during their unclean days; or else, for keeping foodgrains and other things. In some houses, one of the rooms in the *biyoon* is also used as an *obra*, i.e., cattle shed. Child birth also takes place in *biyoon*. *Akhal* is a big verandah in front of the rooms in the ground floor and is used by women for stitching, sewing and spinning purposes. *Paura* and *kothris* are the rooms above *akhal* and *biyoon*. While one of the *kothris* is used as a *rasoi* or kitchen, rest are used as bed rooms. Entrance to the upper storey is through *akhal* where a *pauri* (staircase) connects it with the *paura*.

The villagers have local names for different parts of the house.

Thani: (Courtyard)—Piece of land in front of the house.

Ota: Portion of wall above the plinth.

Dwar: Door.

Bee or Akhal: Verandah, in the lower storey. In this the staircase to the upper storey is located.

Biyoon: Rooms in the lower storey.

Pauri: Staircase.

Paura: Verandah above the *bee* or *Akhal*.

Dwari: Window.

Kothri: Rooms in the upper storey.

Merh: Floor.

Chhanan: (Attic) Space between roof and ceiling.

Chhaper: Roof.

Sharota: A wooden log with notches in it providing steps, used as a ladder.

Dogris: Some villages, in their lands far off from the main *abadi*, have built farm houses there near their fields. Such land and the farm house is called *dogri*. They live there during the working season as it is convenient and in the interest of work and helps to keep a watchful eye on their growing crops. *Dogri* houses are like the dwelling houses in the main *abadi*, with limited accommodations.

Obra: Cattle shed is called *obra* and is built separately. The entrance to the *obra* is through a small door in the front. The roofs

are thatched with grass brought from Moongna, neighbouring village 5 miles away. Sometimes these are also thatched with wheat straw. The roofing is generally replaced every 3rd or 4th year. The wall construction process of the *obra* is the same as used for regular dwelling houses.

Building Material: There is dearth of timber in the village. The timber and slates have to be brought from far off places at market rates when one has to build a good house. Slates are brought from Kufri, 20 miles away where there are slate quarries or from Pangna in Karsog Tehsil 22 miles away. The farmers prepare windows and doors mostly from *tuni* and *kikar* trees growing in their own lands. The rafters for the roofs sometimes have to be of bamboos.

Construction: Before constructing a new house the owner consults a priest about the site and the auspicious day when the construction is to be started.

Havan is performed in the beginning and then foundations are dug to a depth of 3 to 4 feet. These are filled with rubbles and stones but no mortar is used. The plinth is raised about two feet above the ground.

Then the process for erecting walls is taken in hand. The wall in the local dialect is called *bhit or matkanda,* rightly called *matkanda,* because it is built of *matti,* i.e., earth mainly.

A wooden frame, $1\frac{1}{2}$ ft. wide corresponding to the width of a wall, and of varying length and height, open on two sides lengthwise, is prepared and laid on the spot where the wall is to be erected. A mixture of moist earth, small stones and clay is poured into the frame to its top level. The filling is rammed with wooden beaters. This is left to dry for a day or so and in the meantime another portion of a wall is built up likewise. The wooden frame is again fixed on the dried portion of the wall and the process of erecting the wall, as above, repeated till the walls are raised to the requisite height and roofs are laid. Frames of doors, windows and ventilators are placed, as the construction progresses.

The house is plastered with a mixture of clay and cow-dung from inside and outside and in some cases white washing is done with local white type of clay known as *makol.* The carpenters and masons are paid daily wages plus meals for construction of a house.

An auspicious day is fixed for occupation of a new house, when a *havan* is performed. This ceremony is known as *grehasni.* A feast is given to friends and relatives on this occasion.

SHATHLA VILLAGE, KUMHARSAIN SUB-TEHSIL

Residential Pattern: Houses in Shathla are built over a slope. The habitation is hardly about half a mile down from Thanedhar, the nearest bus terminus. The clusters of houses look beautiful on the slope. Main concentration of population is in a central place. Recently a few houses have been constructed a little away from the main habitation and these are of modern designs. As the years roll by changes are expected in the residential pattern. A number of houses are three storeyed and there is a marked difference between the old and the new houses.

A *bowli* is situated in the centre of the village and there is a scheme to provide water taps in every house. Fuel wood is getting scarce as the forests have been felled and apple orchards are rapidly coming up in the area.

Houses: The houses in Shathla are *pucca* built with stone walls. The ground floor constitutes a cattle shed known as *khud.* The cattle sheds in a few cases are separate from the main houses. The floor or floors above ground floor are used for residential purposes and the average size of a living room is 18′ x 15′. The space in between the roof and ceiling, known as *darak,* is used for kitchen in most of the houses. Above the ground floor in two sides and front there is a balcony, meant for doing subsidiary household chores. In winter it is used for sitting in the sun. The roofs in many houses are covered with slates. In front there are open yards used for tethering cattle and *khalyans* for threshing grains. With each *khalyan* there is a small house, *kharohri* to keep husk and agricultural implements.

The villagers are gradually converting their old type houses into modern ones, providing ventilation and windows. The slates on roofs are being replaced by G.I. sheets. The rooms in the third storey of a modern house are used as sitting and sleeping rooms for guests.

Construction: An auspicious day is fixed by the *purohit*, after consulting "Panchang". Houses are mostly constructed by local masons and carpenters. Except for G.I. sheets, the remaining material used is local. The timber, though in short supply, is procured from the local forests on sanction by the Timber Distribution Officer. The villagers have to apply for timber through the Gram Panchayat. Stones are quarried near about. Mud mortar or cement is not used in the walls because wooden logs fixed after a layer of stones, suffice for the firmness of the structure. The G.I. sheets are procured from Simla.

Old houses are dingy, and lack proper ventilation. In them the smoke and soot disfigure the ceiling and the walls. In these rooms walls are low. So are the doors. Probably, they were built as such for warmth during winter. No separate baths are attached and men bathe in the open. Women folk take bath generally in the night time. The new houses have nice bath rooms.

Changes: In contrast to old houses, the modern built houses are a replica of houses found in hill towns. They have been provided with windows and high doors for air and light. The windows have glass-panes. G.I. sheets have been used for roofs. The houses are furnished with durries, carpets, chairs, tables and cots. Such houses have separate kitchens and bathrooms. There are some very good houses in Thanadhar, Kotgarh and in adjoining villages.

Delath Village, Rampur Tehsil

Residential Pattern: The village is divided into five hamlets. These are Delath, Jaira, Shalog, Chaber and Kurmu. All these hamlets are interlinked by irregular foot paths. The village is inhabited by 13 households of *Kolis*, one Rajput household belonging to the ex-ruler of Delath State, 2 households of *Tooris*, 2 of *Pujaris* and one each of *Mahajan* and *Dom*. In all there are 20 households, Patwarkhana, school and post office are housed in one building which has been built at the very entry of the village. Opposite to the school building is the palace of the ex-ruler with a spacious flat, rectangular play ground in between. In one side of the play ground and near-by the school building, a common water-tap has been fixed. Adjacent to the school is a temple and a *bowli*. The houses of the *Pujaris* who have numerated themselves as Brahmans, are close to the temple. *Tooris* have their houses on a hill slope just below the school and the temple. The only shop-cum-residential flat belonging to the local Mahajan is located on the hill slope below the palace of the ex-ruler. Other houses are located over the space in between the shop-cum-residential flat of the Mahajan and the houses of the *Tooris*.

The hamlets of Jaira and Sharog are a few furlongs away from Delath. Each of these hamlets are inhabited by 3 households of Rajputs. Kumru and Chaber are about 3 furlongs away. These hamlets are inhabited by *Kolis*.

House Types: Except the palace and the house newly constructed by the local Mahajan, all other houses are designed on the traditional pattern, influenced by surrounding areas of Kotgarh and Rampur. Mostly the houses are double storeyed with wooden verandahs. The lay outs of the houses are mostly rectangular. A few are 'L' or 'T' shaped. There are two to three rooms in each storey. The rooms in ground floor are called *obra*. The rooms in first floor are called *bauhr* and are used for living purposes. Most of the houses have ceilings. The space in between the roof and ceiling is called *daṛak* which is used for kitchen.

Housing Material: The roofs of all houses are of slates. The stone used for house construction is found in abundance in the nearby *nullahs*. For extracting it, permits are obtained from the Forest Department through the village Panchayat. This system was introduced only after the formation of Himachal Pradesh. No permit was required for quarrying of stones during the prince's regime. There are slate quarries at Adu, Bhonja and Pond about 11, 8 and 4 miles respectively from the village. These slate quarries have been leased out to contractors by the Forest Department. The contractors sell the slates at different rates. The rate of the fine slates is Rs. 75.00 per hundred and of rough quality it is Rs. 45.00 per hundred. The slates used in Delath are of rough quality. It has been found that timber is extensively used in constructing houses. For the supply of timber, the villagers depend upon Nagdhar and Shalog forests. These forests are about 3, 2 and 4 miles respectively from the village. The villagers enjoy *bartandari* rights for obtaining timber from the forests.

The *bartandari* rates for various types of trees are—

Name of the tree	Girth							
	Below 1½′	1½′ to 2½′	2½′ to 3′	3′ to 3¾′	3¾′ to 4½′	4½′ to 5¼″	5¼′ to 6′	Over 6′
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Deodar	0·50	0·50	0·50	2·00	2·50	2·50	4·00	5·00
Kail	0 12	0·50	0·50	0·50	1·50	1·50	2 00	2·00
Chil	0·25	for all classes						
Rai and Tosh	0 12	for all classes.						

For obtaining timber, villagers apply to the Forest Department through the village Panchayat. Usually the number of trees recommended by the Panchayat is sanctioned. Other material like iron bolts, handles and nails are purchased from Rampur.

Labour: For collecting the material for house construction, the villagers seldom employed paid labour in the past. Usually they helped each other free of charge. But they were served meals, of course. Friends and neighbours in the village were informed well in time by the person seeking help. On an appointed day they used to set out to forests, stone and slate quarries and transported the material to the village. This spirit of mutual help is on the decline. Now paid labourers are employed by many. Sometimes villagers feel it difficult to find labourers who generally prefer to work on roads. Usually, the villagers pay Rs. 1.75 to Rs. 2.00 as daily wages to the labourers. In the past, there was a system of employing a mason or carpenter on contract basis. Payment was made in cash or in kind. In case of payment in kind, the carpenter or the mason used to get grains in instalments at different harvesting times. Now daily paid mason or carpenter is engaged. The charges vary from Rs. 4.00 to Rs. 5.00 per day. The carpenters and masons from village Tutu, about a mile away from Delath are generally employed.

Construction: The villagers possess limited land and every effort is made to waste minimum of land for purposes other than agriculture. Site where rocky strata can easily be struck at low depths is generally preferred for house construction. Such sites are easily found in the village. The foundations are not dug deep. The depth varies between 2½′ to 3′. The width is kept about 3 feet. For laying foundation stone, an auspicious day is fixed by the *purohit*. On this occasion *puja* is performed. Before laying the foundation stone, a basket full of grains and *panch-ratna* consisting of saffron, musk, small pieces of gold, silver and brass are buried in the bed of the foundation. The foundation stone is worshipped with *kungu, drab,* and rice. *Gur* is distributed to all present. The masonry work is carried on in full excavated width of the foundation right from the bed which is reduced to 2′ at ground level or at plinth by providing off-sets on both sides of the walls. Dressed stones are used to form the faces of walls and the portion in between is filled in with flints and random stones. Briller kind of stones, resembling slates are shaped by chipping off the ends and sides. The stones are then used for constructing the walls. No lime or mortar is used in the construction. After every two to three feet of stone masonry wooden beams are built in the walls. From end to end on each wall two wooden beams are placed parallel to each other. The beams are firmly fixed to each other at the corners in the walls and thus they form good binders for the stone masonry. The door frames are fixed in the walls during construction. Generally, the doors are low in height.

When walls are complete upto the height of the door frame in the ground floor a wooden frame called *chakti* is placed on the walls. This is marked by sacrifice of a goat. The construction work then proceeds further and when the walls reach the room height, three or four strong wooden joists are placed along the shorter span of the rooms and thick wooden planks are then nailed across these joists. To provide wooden verandah along the front wall or in certain cases along the side-walls also, cantilivered projection is given to joists fixed in the walls. Construction of 1st floor walls starts after it which is done in the same manner as in the case of ground floor. Small windows known as tirus are provided in the walls.

Two opposite side walls of the 1st floor are raised for laying the gabled roof. At the top a ridge pole is placed. Then rafters are fixed with ends resting on the ridge pole and the walls. Purlins are nailed cross-wise on the rafters with ends resting on the battered walls. Thick and coarse slates are then nailed on purlins from the gable end to the ridge. The joint at the ridge is covered by overlapping the slates fixed in the opposite slopes. For the verandahs along the side walls lean to roofs are provided. After roofing is complete, work in the interior is taken up. Generally, no plastering is done in the outer sides of the walls. In the interior of the houses, thick plastering of clay mixed with cow dung is done, followed by white-washing with *makol*. In a few houses, lower portion of the inner walls in the 1st floor is covered with thick wooden planks.

Local names for the various parts of the house are:—

Labari . . .	Almirah
Chhandal . .	Ceiling
Darak . . .	Attic
Chheti . . .	Purlins
Latai . . .	Raftars
Brehta . . .	Joists
Obra . . .	Rooms in the ground floor
Bauhr . . .	Rooms in the 1st floor
Tiru . . .	Small windows
Dwar . . .	Door
Meda . . .	Floor
Tong . . .	Verandah
Khud . . .	Cow shed
Bhit . . .	Walls
Chool . . .	Hearth
Chhapar . . .	Roof
Sheed . . .	Staircase
Sandhali . .	Round hole in the roof—a smoke outlet

CHERGAON VILLAGE, ROHRU TEHSIL

Residential Pattern: The river Pabar, known for trout fishings, flows about a furlong below the village. In between there are terraced fields of the villagers and trees growing on the bank of the river. On entering the boundary of the village, while coming from Rohru, one finds some shops on the right side of the village road. Office of the Block Development Officer is just on the boundary of the village. A little further, one has to cross Andhra stream, a tributary of river Pabar. On the other side of the stream, there are buildings of school and co-operative store on the right side of the village road. On the left of the road there are located Forest Rest House, Fisheries Office and Gram Sewak Hut. The road leads on further in a gradual ascent to the main habitation of the village, dividing it in two parts. Crossing the village, the road leads on further to Dodra-Kwar side.

The houses in the main habitation are built haphazardly. A number of closely built houses are there above on the left of the road. On the right, below the road, the houses are not so closely built. In the upper part there are narrow paths which converge on the main road at different points. There are no drains and water stagnates. Below the road it is a bit cleaner. The Scheduled Castes have their houses in both the parts.

House Types: Houses of the villagers are designed on the traditional pattern found in Chauhara Valley of Rohru Tehsil. They have slate roofs. About fifty percent of the houses are double storeyed and the rest may be termed three storeyed in the sense that in between their ground floors and top floors, there are built in about $4\frac{1}{2}$ feet high storeys, called *pand* locally.

Material: The prevalent government charges for the different items of material required for house construction are as follows:—

Slates: Rs. 5.00 as permit fee from non-right holders or contractors Free for right holders—villagers.

Stones: Rs. 5.00 as permit fee from non-right holders or contractors. Free to right holders—villagers.

Timber: *Zamindari* rates charged from right holders for different classes and species of timber ranging from Re. 0.12 to Rs. 5.00 per tree. Market rates from non-right holders for different classes and species ranging from Rs. 2.00 to Rs. 100.00 per tree.

Trees are obtained by applying to the Forest Department through the Panchayat. In case a *zamindar* cuts timber without a permit, he is fined the *zamindari* rate of that tree plus compensation rate of the tree which ranges from Rs. 2.00 to Rs. 100.00. This depends on the

girth and quality of timber. If any non-right holder is caught stealing timber, he is fined the market rate of that tree plus a penality of Rs. 50.00. The villagers have timber rights in Punjali, Bogla and Sandasu forest ranges within a radius of 3—6 miles. Stones and slates are available at Punjali quarry 3 miles away. The present quarrying rate of a stone *chhatta* of 5′ x 5′ x 4′ size is Rs. 10.00 at the quarry. The quarrying rates for slates range from Rs. 20.00 to Rs. 30.00 per hundred according to sizes of slates. Nuts and bolts are bought from local shopkeepers.

Labour: Prior to 1947-48, stones, slates and timber used to be collected by helping villagers for the intending builder of a house, and his cost was meals served to the helpers. This was quick and cheap work. The masons and carpenters did work on contract basis. Now all labour is employed on daily wages. The rates are—

Mason—Rs. 4.00 per day.

Carpenter—Rs. 4.00 per day.

Labourer—Rs. 2.00 per day.

By some villagers payment is made in kind. A mason or a carpenter is given two *pathas* of grains per day whereas a labourer is given one *patha* of grains. These are in addition to food once a day. One *patha* contains 1 seer of paddy, or $\frac{3}{4}$ seer of barley. Only rich families of Thakur or Rajputs can afford to give wages in kind.

Mahurat: When a new house has to be constructed, a *mahurat* is sought from the family priest living in Dhangoli village. Sometimes, the family *devta* is consulted for the *mahurat*. *Navratra* days falling in March-April are preferred. There is little rain then and the villagers are also free from agricultural work.

Foundation: Foundation about two feet deep and $1\frac{1}{2}$ feet wide is dug and watered. Four stones are placed at the corners and this marks the beginning of work. A rupees is given to the mason. While laying the foundation of a house, *gur* is distributed among those present.

There are many superstitions attached with the foundation work. The owner or a close relative, under the evil effect of Saturn should not be at the site when the foundation is laid. A constant vigil is kept on the foundation till its completion. This is done to avoid any possibility of throwing a charm by an enemy. The charm may consist of hair, nails and ash wrapped in red cloth. When old houses were pulled down, inauspicious articles like these were found in the walls.

Construction: Generally no plinths are built. Walls are about $1\frac{1}{2}$ feet wide made of stones and beams of wood. No mud mortar is used. When the door frames are fixed, *gur* is again distributed among the labourers, near relatives and friends. The first storey is about 6′ or 7′ high. The stones used in the construction of the house are of shale variety. These are rectangular and uniform. Wood is used in the walls. Thick wooden beams are placed at short intervals in the walls, in some houses after every one layer of stones and in others after two layers of stones. This is done to give good shape and strength to the walls and it also helps to keep the rooms warm in winter.

The doors are made of *diar* wood. Generally, dimension of a door is about $3\frac{1}{2}$′ x $4\frac{1}{2}$′. The door shutter is thick. It is made of one piece of wood about 2″—3″ thick. The main door of the house need not face any particular direction. This depends on the house site. The door facing east is considered better.

The ground-floor and the top floor are called *goshal* and *bawad* respectively. In *goshal* cattle are kept while in *bawad* the household resides. *Pand* in a house is the low built in storey between the ground floor and the top floor. It is closed from all sides. Entrance to *pand* is through a small trap door in the floor of the *bawad*. *Pand* is a dark and dingy sort of room and has no windows or ventilators, except a small hole for air and light, called *mord*. The family retires to it in winter months because of the weather. The gabled roof is laid over a structure of wooden beams. The covering material is slate.

A new Government Primary School building has G.I. sheet roofing. One building of the Fisheries Department and one hut of the Forest Rest House have roofs of shingle. The Forest Rest House roof, is made of shingle partly and partly of slates.

A wooden verandah in the first floor, known as *tong*, is built in three or all four sides of a house. In some Rajput and Thakur houses *tongs* are covered with carved wood planks with apertures for light.

After completion of the construction work the walls are plastered with mud. The walls outside are given a coat of *shukla mata*. *Shukla mata* is a type of cream coloured clay.

Every house must have a store room called *kothar* or *kotha* by the villagers. *Kothar* is built generally close to a house. In some cases it is in the ground floor of the house next to the *goshal*. In *kothar* there are generally four big compartments, for storing grains. Other food stuffs are stocked in small *kotheries* built in the *kothar*. *Kothar* is kept locked and the key is with an elder of the family. Separate *kothar* is built to keep grain safe against out break of fire.

Only some houses have separate kitchens. In others food is cooked and served in a corner of the living room.

A few houses have baths attached to them. The villagers, in general, take their bath either in the verandah or in open. Whenever they do, it is with warm water at night.

Different parts of a house—local terminology.

Bihad	Space between two rooms in upper-storey
Bawad	Upper storey
Brani	Wooden beam
Chand	Space between roof and ceiling
Chhappar	Roof
Dar	Door
Darpaichi	Door frame
Dehad	Sill
Goshal	Cattle shed
Handiyara	Nithes for utensils
Makoti	Bee-hives
Mord	Window in *pand*
Pand	The low built in storey between *bawad* and *goshal*
Sangal	Stair case
Shangdi	Latch
Teeray	Nitches
Tiri	Window in a room
Tong	Verandah
Wad	A closed *tong*

There is one household living in a small room. 17 households (with 41 members) have one room each, 31 households (with 175 members) have two rooms each, 7 households (with 44 members) have three rooms each, 6 households (with 44 members) have four rooms each, one household (with 7 members) has five rooms and 6 households (with 41 members) have six rooms or more each.

PURAG VILLAGE, KOTKHAI SUB-TEHSIL

Residential Pattern: There are 65 houses sprawling on a mountain slope. The residential pattern is community/clan-wise. Paths and by-paths have not been laid out systematically and in most cases approach to houses is provided by very narrow foot-paths. The impact of the caste hierarchy has been so strong throughout that it is evident in distinct clusters of houses occupied by different castes. The Rajput houses are at the top in the village whereas the scheduled caste *Reharas* live down below. The temples and school are located in the centre and round about live the Brahmins. The other castes are living on the other sides. There has been a practice to name the various settlements. These are—

1. Bhadartay-ki-Nagri.
2. Bharotay-ki-Nagri.
3. Bhat-ki-Nagri.
4. Kaprant-ki-Nagri.
5. Koli-ki-Nagri.
6. Nuhan-ki-Nagri.
7. Tuhal-ki-Nagri.
8. Turi-ki-Nagri.

House Types: Houses are rectangular in lay-out. In about ten per cent. of the houses there has been extensive use of glass panes, paints and varnish keeping in line with the latest fashion, rest are built on the traditional pattern. Majority of the houses are three-storeyed. All the houses of the village are pucca built with stone-walls. The ground floor of a house is used generally as a cattle shed and is known locally as *obra*. Only about 10 per cent. households have separate cattle sheds from the main houses. The second storey is used for residential purposes and is locally called *phod*. The average size of a room is 12′ x 10′, whereas the height ranges from 6′ to 6½′. The height of rooms is kept deliberately low to keep warm. During winter it snows and the weather is quite chilly. The third storey which has access from within the second storey through a wooden stair-case is known as '*boar*'. It is used for kitchen in many houses. All houses have verandahs. The roofs are covered

with slate stones. The space in between the ceiling and the roof is locally called as darak. It is used mainly for storing the agricultural implements. The ceiling is of wood planks. In front of the house, there is a small open yard used for tethering cattle and has a threshing floor, called khilwan. The shape of the khilwan may be rectangular or circular depending upon the choice of the owner. On the sides of the house can be seen the *chhuin and tolis*. *Chhuin* is a term which stands for a pile of firewood, whereas *tolis* denote conical shaped stacks of fodder. Ten per cent. households have separate kitchens and baths.

Construction of House and Building Materials: Professional masons who live in the neighbouring village are employed to construct houses. The basic material for house construction, timber, stone and slates, are available locally. There is only one building, in which the government school is housed, which has G.I. sheet roofing. Others have slate roofs. Timber is available from the Kalal forests No. I, II and III. These forests are about three miles away from Purag. For getting timber villagers have to apply to the Forest Department through the village Panchayat. Stone is available in plenty in the village, and slates are quarried near the village of Bhawang about 1½ miles away. Mortar is not used in the construction of walls. Wooden logs are laid after each layer of stones to serve as binders.

A type of white clay, locally called *makol*, is used for white-washing the walls. This is brought from Solvi village about 6 miles from Purag. The clay gives a shine and looks beautiful but it lacks sticking property. Regular white-washing of a house is done in the month of April and on the eve of Diwali to give a clean and festive appearance to the houses.

Iron door handles, bolts, nails and screws are purchased at Kotkhai and a few households get them from Simla. The village blacksmith prepares a few rudimentary things, to order.

It is the local carpentar who does all the wood work. The carpenter seems to have been endowed with artistic talent. He executes figurine work on ceilings, doors and verandahs in a most absorbing way. Generally it is the rose flower motifs which are carved with the traditional and rudimentary tools in a artistic way.

For the construction of a new house, the all famous *purohit* or village priest is consulted. He fixes an auspicious day. *Mahadev*, deity in the local temple, is worshipped. Generally nauratra days (the days immediately preceding the Dussehra festival which fall in the month of September-October) are considered most auspicious for constructing the houses.

In 90 per cent. of the houses the main entrance faces east. This is considered very auspicious. In those houses, where it is not possible to have the main entrance facing east, special permission is obtained from the village deity and the reasons are explained. Villagers have superstitious beliefs in construction work. The wooden beams used in the construction of a house are laid in position after 12 in the night. Goddess Kali would not allow the people to live a happy life unless the beams are laid at some auspicious moment which invariably is after 12 in the night. The exact time is fixed by the village priest.

The old type of houses lack ventilation. No baths are provided. Both the men and women folk bathe in one corner of the verandah and expose themselves to cold. In contrast to the old houses, the new houses have been constructed to make them more comfortable. Windows and ventilators have been provided Separate baths and kitchens are attached. Moreover, the accommodation is kept quite spacious.

GIJARI VILLAGE, THEOG TEHSIL

Residential Pattern: The 60 houses of the village are indiscriminately situated. The houses are dominated by the village temple.

House Types: Three storeyed houses are common. Very few households have separate kitchens. A room in the upper most storey of a house serves as a kitchen-cum-store or as a kitchen-cum-sleeping room. No bath rooms are provided in many of the houses. People take bath in the open or in a side of the verandah. Verandahs of about three to four feet width are common. The ground floors of the houses are used as cattle sheds.

The houses in general are ill ventilated, and the doors are small in size. Rough slates are used for roofing. A small hole in the roof, which can be shut or opened by a sliding slate, serves as a smoke outlet and sky light in a room.

In a majority of the houses the main doors face north and north-east. The reason being that the wish of the village deity is such and anyone not doing so would incur the wrath of the deity. In case of those rare houses which have their main doors towards south and west, special permission has been obtained from the deity.

Construction of Houses and Building Material: For laying the foundation of the house, the all famous *pandit* (village priest) is consulted and he fixes an auspicious day for this. Deity in the local temple is worshipped and his blessings are invoked. *Nauatras*, the days immediately preceding the Dussehra festival are considered auspicious for house building.

Timber, stones and slates are all that one needs mainly and these are collected from near about. Paint, varnish and window panes are being used in new constructions.

In collection of stones, timber and slates a member from each household in the village assists free of charge. Meals are, of course, served to them. Nails, bolts, handles, nuts, screws, paint, varnish and glass panes are obtained from Theog or Simla. A type of white clay, locally called *makol*, found at Karailli, a few miles away from Gijari is used for white washing.

Masons are engaged from neighbouring villages of Ghund and Mathli. They are paid in cash and kind.

CHAUNRI VILLAGE, KASUMPTI TEHSIL

Residential Pattern: Since villages in these parts of the hills are situated over slopes, it has been a tradition that higher-ups in the society preferred to construct their houses on higher level. Chaunri is sprawled over a gentle slope. Raja's palaces are located over looking the entire village. Then there is a small bazar consisting of shop-cum-flats. On the lower levels are houses of the villagers.

Somewhere houses are in a cluster and elsewhere the houses are dotted over the fields. As far as possible they try to have their houses nearer their land.

House Types: The houses are generally two storeyed having projected verandahs in front, which serve as passage to the rooms. A staircase is attached to the verandah. The old houses are generally dark, dingy and ill-ventilated. Windows have been provided in houses constructed recently. Upper storey is used for residential purposes. The ground floor of a house is invariably used as cattle shed, which is called *obera* locally. Most of the households have separate kitchens but there are no separate bath rooms. Houses in the bazar have separate latrines.

Doors and wooden pillars are painted red. *Geru* mixed with mustard oil is used as the paint. Lime is procured from Simla for white washing. Often local white clay is also used.

The walls are made of random stones which are locally available. Wooden beams are placed in walls after every fourth or fifth layer of stones which serve as binders for the walls Plastering material is local clay mixed with cow-dung. Since slate is the common roofing material, roofs are gabled. Floors are of thick layer of mud spread on wooden planks and finished with a coat of cow-dung.

When a new house has to be constructed the family priest is consulted who fixes an auspicious time—*mahurat*—for laying the foundation stone. The foundation stone is laid by the priest in the south-eastern corner of the site. A copper pot or *kalash*, with a coin in it, is placed below the stone. The foundation is dug to the depth of 2 to 3 feet.

While erecting the main door family priest is again called and the door frame is fixed at an appointed auspicious time. The priest ties round the lintel of the main door a *kangan*, an iron ring, feather of a peacock. A *supari*, a *kaudi* and a coconut are also hung. This is considered a sign of future happiness of the family about to inhabit the house.

Sweet-meats are distributed among the children before laying the roof.

A *griha pravesh* ceremony is held when the house is complete. The priest finds out an auspicious time for occupation of the house and a feast is held for the neighbourers and the near relatives.

The timber required by the villagers for the construction of a house is available to them at concessional rates from the Forest Department. They have to submit their applications to the Department through their Gram Panchayat.

In the village, 20 households have only one living room each and 27 households two living rooms each. 7 households have three living rooms each, whereas, 2 households live in houses containing four rooms each. Two families have more than five rooms each. Raja's palace, of course, has a number of other buildings attached to it.

Basal Village, Solan Tehsil

Residential Pattern: The main habitation is at Basal proper and the remaining in its hamlets.

The Rajputs and Brahmins live in all the hamlets except Deoli-ki-ser and Gadhela. These are inhabited by *Kolis* and *Chamars*. The *Bhatras* live in Ber-ki-ser with Rajputs and Brahmins. In the rest of the hamlets, *Swarns* and scheduled castes stay together. The scheduled castes have built their houses slightly away from those of *Swarns*.

There is a road which links the village with the Kalka-Simla motor road at Chamba-ghat. Lanes and by-lanes in the shape of village-paths, often passing through the agricultural fields, exist, linking one hamlet to the other.

Houses: Generally houses are single storeyed with flat mud roofs, facing sunny aspects of east or west. There is no proper ventilation in old houses except small holes in the walls here and there. Ventilators and windows have been provided in new houses.

On an average a house has three rooms—one living room, another store-cum-guest room and the third a kitchen, attached to the living room.

There is a verandah in front of the rooms in almost all houses. Cattle-sheds are built apart. Small court-yards are provided in front of the houses where grass and fuel are stored. They use the courtyards as *khalyans* for threshing the grains.

Material: The housing material is available locally. Stones are abundantly available in the village. They are brought and chiselled into proper shape. For mud, the villagers dig the nearby ground. The timber is brought from the Karol-ka-jungle, not far away from the village.

Masons: In the village, Safroo and Jaggu Ram were two famous masons. They were the old residents of the village and were believed to have attained high perfection in the work of house construction. Safroo charged two rupees per day as his wages and Jaggu Ram Rs. 1.50. As the construction work continued throughout the year in the village, they remained very busy. Now there are many masons. Some of them are out-siders. The daily rates have risen to Rs. 4.00 or Rs. 5.00 per mason.

House Construction: A villager who wants to construct a house, will first of all select a site near the water head, habitation and not far off from the fields. After this, he will go to the village *pandit* to prepare a *griha-kundli*, and to get an auspicious day fixed for starting the construction.

The selected piece of land is levelled first and foundation dug to a depth of the length of an arm. It is then filled with irregular stone pieces, and levelled. Here a small ceremony is also performed. The owner of the house brings the *griha-kundli*, wraps it in a red piece of cloth (*kand*) and places it within the premises of the site. Some *puja* is done. After this, he removes the *kundli* and lays the foundation stone. On this occasion, *Turis* are invited to play musical instruments. Gur is distributed among all. Thereafter, the construction begins.

The wall, locally called *bhit* or *kandh* is generally $1\frac{1}{2}$ feet thick and is constructed with stones fixed in mud mortar. The walls are raised to the height of 10 to 12 feet. Door and window frames generally of the size of $3' \times 5'$ and $2' \times 3'$ respectively are fixed. For verandah, wooden pillars are fixed, about five feet apart.

For laying the mud roof, the villagers first of all fix the wooden beams on the walls half a foot apart from each other. On the beams, half inch thick wooden planks are laid. Dry grass is spread on the planks and a thick layer of puddled mud with an infusion of hay is laid. Finally the entire roof is covered with thick fine clay, which is rammed for compactness. A slight slope to drain away the rain water is provided. The walls are plastered with a half inch thick layer of mud. The floors of the rooms are also of mud and plastered with cow-dung. The houses are white-washed annually with *makol*. It is a sort of white clay available in the vicinity of the village. The villagers dissolve it in water, adding salt and gum and a solution is ready to coat the walls.

Wooden frames of doors, windows and ventilators are painted red. First of all *geru* dissolved in water is rubbed on the wooden surface. And when it has dried, it is given a coating of mustard-oil.

Greh Parvesh: When the house has been completed, a small ceremony is performed before occupation of the new house. The household concerned, first of all, consults the village *pandit* and finds out an auspicious day. On the day of occupation, *havan* is performed and all relatives and friends are invited. The household throws a big party to entertain the invitees.

An average house is constructed within a price range of Rs. 1,000.00 to Rs. 3,000.00 and is completed in a month.

Some local names of different parts of a house are—

Aangan . . .	Court-yard
Bhit or Kandh .	Wall
Bramdah . .	Verandah
Chadray-di-chhat .	Roof with G.I. Sheets
Chakhandi . .	Bigger room
Chhat . . .	*Roof*
Dwaar . . .	Door
Kari . . .	Beams
Mairh . . .	Ceiling
Mori . . .	Windows
Rasoie . . .	Kitchen
Teeri . . .	Ventilator

Chaupal Village, Chaupal Tehsil

Residential Pattern: At one end of the village, towards the adjoining village of Bodhna a number of government offices are located alongwith some residential quarters for the government employees and a number of shops. Out of the government offices, those of Block Development Officer, Tehsildar, and Chaupal Panchayat and the shops lie in Bodhna village circle.

The original village folks of Chaupal, barring a few, live towards the side of another adjoining village Manjotli. Their settlement pattern is almost caste-wise, in the sense, that households of a particular caste are located in a particular portion or locality of the village. Five households of Brahmins and Rajputs, have their houses in one portion of the village, though quite apart from each other. There is one big temple and close to it live *Chamars, Lohars* and *Turis*, in three distinctive localities. The *Kolis* own houses a little away from the temple. The *Badhis* have their houses, forming a separate locality, near the Divisional Forest Office. The houses in *Lohar, Turi* and *Chamar* settlements are very closely built. In all the other settlements of different castes, the houses have been built quite apart from each other alongside terraced fields. The different settlements are connected by narrow paths. In most cases, a household has its own kitchen garden laid to one side of the house. In many of these kitchen gardens a couple of fruit bearing pear and apple trees are growing.

House Types: The government buildings mostly are two storeyed, with G.I. sheet or wooden plank gabled roofing. In the following description of houses the details provided relate to the houses of villagers. The houses of the village folks, are mostly double storeyed. Single and three storeyed houses are also there. Recently Giaru Ram has built a four storeyed modern house. Generally the doors of the houses face the east or south from where they get more of the sun. The roofs are gabled, and in majority of slates. The rooms in the older houses have small doors and are not well ventilated. A small outlet for smoke is provided in the roof locally called *sadhali* which can be shut or opened with a sliding slate. This *sadhali* serves the purpose of a sky light also.

Ground Floor: The ground floor in a house of two or more storeys is used primarily as a cattle shed by the villagers. They call it *obera*. In some houses there are also one or two store rooms for agricultural implements and household goods in the ground floor. The ground floor in most cases is paved with flat-stones over the bed of small stones and mud rammed down.

Upper Storey: The upper storey of a house from the storey below is reached by means of a wooden stair case, locally called *sheer*. It reaches the verandah of the upper storey which leads to the rooms. The verandah is locally termed as *taung*. Four to five feet wide wooden verandahs, extending in one or two or even three sides of the houses, are built.

The upper storey of the house, locally called *fand,* is the residence of the household.

The floor in a room of the second storey is of wooden planks laid over joists. The floors and the verandahs are kept very neat and clean by scrubbing. The kitchens are very clean. The hearth, locally called *chool,* is in one corner of a room, the smoke from which escapes through the *sadhali* in the roof.

There are no bath rooms or latrines in the houses. People go out in the fields to ease themselves. During summer, men bathe at the springs and womenfolk take their bath in a side of the house in the verandah or under it.

In front of many houses, or near about them, are farmyards, encircled by low parapet walls and paved with flat stones, where threshing of grains is done. They are locally called *khade.* Social functions are held in these *khade.*

Kathar: This is a *pacca* store room for grains. Some households have separately built *kathar* in front of their houses and many other have *kathar* built in their residential houses.

Building Material: Stone, slates and timber are the main building material used here. Stones are collected from the nearby quarries after obtaining permits from the Forest Department. Slates are quarried in the nearby grazing pastures after obtaining permits. The good quality slates are found in Rupadi and Mattal slate quarries about eight miles away from the village. Slates from these two quarries are exported even to Rainka Tehsil of Sirmur District and to villages in U.P.

There is no scarcity of timber and a good use of the same is made in construction of houses. It is available at concessional rates to the *zamindars* for building houses. For obtaining the timber, villagers apply to the Forest Department through the village Panchayat. Iron bolts and nails are purchased from the local shopkeepers at exorbitant rates.

Labour: There are two stages involved in the collection of the building material. The owner engages the skilled labour at the quarries and in the jungle. They quarry the stones and slates, cut the trees and saw them into beams and planks. This is the first stage, followed by the transportation of the material to the building site. The traditional method is to transport the material with mutual help. This is known as *daroch.* In this the owner, who wishes to construct a house, calls his relatives and close neighbours. He explains his construction plan. The men who gather, volunteer to help in transporting the material like stone, slates and timber. They are served food—*sidoo* and *ghee.* A rich man may even slaughter a goat to be served to the workers. Modern method of collecting the material is to engage labour and pay them cash. Sometimes, the wages are paid in kind.

In the past, contract for constructing of the whole house or for each storey was given to a mason/carpenter. The contract value used to be between Rs. 200.00 and 500.00 for a double storeyed house having four rooms. Or it used to be about Rs. 180.00 for each storey with two rooms. But now, daily paid mason/carpenter is engaged by the owner. A mason/carpenter now charges Rs. 5.00 per day, and an unskilled labourer Rs. 3.50.

Village carpenters are there in the village. Unskilled labour is available in Chaupal and Bodhna and Manjotli.

Construction: The foundation of the house is laid on an auspicious day fixed by the priest. Even, the mud of the house site is shown to the priest, lest it may be haunted by some evil spirits. The site is cleared and levelled. The foundation is dug up to the depth required. At the four corners of the foundation, four stones are placed. The priest lights earthen lamps over some grains at the corners and offers *puja. Gur* is distributed at the occasion. It is after this, that the work on the foundation starts with dry masonry work. It was understood that the foundation is watched till its completion lest any body throw some charmed article into it. This can harm the owner of the house or his relative. When the foundation reaches the ground level, construction of walls starts. Generally no plinth is kept.

The doors of the lower storey are placed when the wall is about a foot high from the ground level. The doors are placed at an auspicious time. *Gur* is again distributed to those present. Dry masonry work is carried to requisite height. Dressed stones are used in both sides of the walls. Stout wooden beams are placed in the walls after every one foot during the construction to serve as binders. When walls reach requisite height long thick wooden beams, bridging two opposite walls

are placed. These beams project by about 6 feet over the wall in one direction for laying the verandah. Wooden beams, about 6-7 feet long, are inserted in the other sides of the wall if the verandah is to be laid in more than one side.

The ground floor is used for cattle shed. If it has two or three rooms, the spare room may be used to keep agricultural implements or for storing household goods.

Upper Storey: After filling the gaps by masonry between the wooden beams, further construction of the wall is carried out to form the second storey as in the case of the lower storey. Space is kept for wall almirahs during construction and door frames are placed. When the walls of the upper storey are raised to the requisite room height joists are laid bridging the two opposite longer walls. The joists project over the walls for roofing work, longer in the direction of the verandah, extending over and beyond the edge of the verandah. Joists are fixed for roofing in the other two side walls extending outward to cover the side walls or the verandah below in many houses, having verandah in more than one side. After this the two opposite side walls are raised for laying the gabled roof. A ridge pole is placed on top and purlins are fixed. On the purlins the slates are fixed to complete the roofing. Thereafter the floors are laid and the planks fixed in the verandah.

The rooms in the upper storey are provided ceilings of thick wooden planks nailed to the joists. In one corner of the ceiling a trap door leading to the space between the roof and the ceiling is kept. This space is used for keeping household articles.

The walls of the houses are plastered with mud followed by a coating of cowdung and then white washed. Regular white washing is done at least twice a year before important festivals.

When the house is ready for occupation by the household, a *puja* is performed. A feast is given to the relations.

JUBBAL VILLAGE, JUBBAL TEHSIL

Residential Pattern: The palace is the nucleus round which the houses are built. In the residential pattern of the village the houses of different castes are clustered together in groups. This is more predominant in the case of Rajputs and Kolis; the main inhabitants of Jubbal.

The houses of the Rajputs form a cluster in the main village, which is below the palace and Kolis live together in their houses clustered towards Deorah side. The three Brahmans households live at different places. Two families live above the palace while the third lives below. The temple of *Piri Devi* an *Ishtdeity* of the rulers of Jubbal forms a part of the palace. This has necessitated the habitation of Turis (a musician class who lives scattered at different places, above and below the Jubbal—Deorah pony track) near the temple. The *Bharaira* or *sunar*, lives separate from other castes, behind the palace.

Some Kolis and Rajputs have recently constructed their houses on the out-skirts. Kolis have expanded towards *Bartal-Ka-Nala* side while the Rajputs have built their houses below the Simla-Jubbal road, across the stream *Bishkulti*. This is primarily due to the increase in the size of families. Due to disintegration of the joint families, some have constructed new houses for themselves after breaking ties with the joint family. So far six Rajputs and three Kolis have built their houses outside their clusters.

House Type: Every family possesses a house and there are sixty odd residential houses. Eight persons own more than one house. Generally the houses are four storeyed. A few harijan houses are three storeyed. Every storey of this house is put to a distinct use. Most of the houses here have one room in each storey. Sixteen houses have two rooms in each storey, and only four have three rooms per storey.

Obra: The ground floor is used for keeping cattle. Entrance is through a four feet high and three feet wide door. A pen-like structure called *bara* on one side is provided by a partition wall. Calves are kept in it. *Obra* has a stone flooring while all the floors in the upper storeys are wooden.

Obri: This is the second storey of the house. This is provided for keeping goats and sheep in and is only three to four feet high.

Pand: These are the rooms on the second floor of five storeyed houses. Grains and other household goods are stored here. Small

storing boxes and shelves are provided in one of the rooms of *pand*. These provide additional accommodation. Child birth may take place in *pand* or *Obra*. The strangers and outsiders are first received in this storey. Afterwards they may be invited to the upper storey. A *verandah* is provided on three sides of the house. Entrance to the upper storey is provided both from the *verandah* as well as from inside the rooms in *pand*.

Bour: These are the rooms where the members of the family spend most of the time. They cook their meals here, have their bath in this storey and at night they sleep here. The walls of these rooms have wooden panelling on the inner side. The wooden flooring in the *bour* is generally divided into two parts. One part is slightly higher than the other. A kitchen is provided in the higher portion. A sliding slate of the roof is provided as a Chimney. *Chauka is* observed by some. Members of family and caste men are served their meals in the upper portion of the kitchen. Others are served either in the lower portion or in the *pand*. Small openings in the walls of all rooms are provided for ventilation. A wooden verandah is provided on all the four sides of the houses. In some houses, the verandah is enclosed on one or two sides by wooden planks. The corners of the verandah on the side which faces outside are invariably provided with built in seats. Some times the space below the seats is provided with small doors. Little household things are stored in them. Household goods, boxes containing clothes and beddings are stored at the back of the house. The additional rooms are constructed by providing an extension to the verandah. The bigger room is used as a sitting room or *baithak*.

A few persons have furnished the *baithak* with chairs and tables. Smaller rooms are used as bath rooms and latrines.

Dharak: Is a space between the ceiling of *bour* and the slate roofing. The villagers use it for storing odds and ends. The goats slaughtered on festive occasions are hung up here.

The patterns of structure of new house are broadly the same as for older ones, except that the doors, one big window and glass panes are used. G.I. sheets are now replacing the slates for the roof.

The palace is the only building which differs from the traditional residential structures. It is a huge building provided with big doors, windows and sanitary fittings, and is one of the very well known old palaces of Himachal Pradesh.

House Construction: *Material*: The materials for the construction of a house are stone, timber and slates or G.I. sheets. Stone is available in plenty. The forest department generally gives the permission in case stones are required from their lands. The stone is excavated on contract basis. The contractor charges twenty to thirty rupees per hundred cubic feet of stone. *Kacha* stone is cheaper and the charges per hundred cft vary between twelve and fifteen rupees. The chiselling and hammer dressing of the stones are done on daily wages. The labourer charges about two rupees per day.

The villagers have their rights for timber in the forests of Giri dehat, Kalauntha, Rampuri, Shari and Sundli, within a radius of four to five miles. The Forest Department charges a nominal price of about three rupees for a deodar tree of the best quality. The market price of this tree is more than six hundred rupees. The villagers make extensive use of timber in the house construction here because the best timber is cheap

There are slate quarries at Latoch, Panaithi, Shangaltu and Tahu. All these are four to eight miles away. At these quarries, the contractor charges from one hundred rupees for small slates to two hundred rupees for the bigger ones. G.I. sheets are obtained through the Civil Supplies Department. Timber and slates are brought by the labourers who charge two to three rupees per day. Formerly there used to be *bwara* system in the village, under which, one person from each household would help the owner to fetch timber and slates. He used to be served with meals. This help was on reciprocal basis.

Construction: The family priest is consulted for the selection of the site and for the auspicious moment for laying the foundation stones. Then the foundations are dug. These are four to six feet deep. Worship is performed before laying the foundation stone. According to the practice, four earthen pots containing milk, *gaunch, ganga jal* and *panch ratan*

are first placed in the corners of the trenches dug for the foundations. Then a *patha* or two seers of grains are heaped near each of the pots and one *patha* of grains is put at the centre. Five earthen lamps are lighted and placed on these five heaps of grain. The priest performs little worship of *Navgrehas*, Ganpati, Laxmi and Sheshnag, by the side of the heap of grains placed in the centre of the house. The foundation stones are laid at the auspicious moment found by the priest. The foundation stones are laid over the pots in the four corners and also in the centre of the house where worship was performed. The grains heaped near the foundation stone alongwith some money are given to the priest and *halwa* prepared for celebrating the foundation laying ceremony, is distributed among friends and relatives.

Wall construction: The foundations are filled with *pucca* stones and plinth is raised to about a foot above the ground level. Wall construction starts from here. Wooden beams are placed in the stone wall at regular intervals of two to three feet. The wall is generally about two feet thick. Therefore two beams are placed together on the wall, in a manner that one is in level with the outer side of the wall and the other is in level with the inner side. The space in between the two beams is filled with stone pieces. These beams are bound together with wooden strips and the corners are joined together with long pegs. The stones for the wall are chiselled on one side. Rest of the sides of the stone are hammer dressed. The chiselled side forms the outside of the wall. The space for the doors are provided as the construction of the wall proceeds. When the roof level of the *obra* is reached, *Mauli* and *supari* are tied on the wooden beams and incense is burnt on this occasion. This is *Chatti-Rau-chyol*. The celebration is repeated when the roof level of the house is reached and again when first slate of the roof is placed. The constructional details of the wall for all the storeys is the same as for the ground floor.

Except the first storey which has a stone floor the other storeys have wooden floors. These are supported on big beams. The wooden verandahs are supported on thick beams.

Roof: The slate or G.I. sheets are supported on wooden beams or rafters. The wall on the sides is gabled for giving slopes to the roof. Two types of slopes are in vogue here. One is small slope and the other is a steep slope at the top. All houses however have two sloped roofs. The roof with steep slope is called *burar wala chhapar* and the other type is called *seedha chhapar*. About forty five houses are of the former types.

The fire place for the kitchen is again provided at the auspicious moment. The hearth is made of stones. It is placed on the earthen pot containing *gaunch*, milk, *ganga jal* and *panch ratan* just as the foundation stone was placed at the time of laying the foundations of the house.

After the house is completed the owner clears his account with all the labourers, carpenters and the masons. Then carpenter climbs the roof and sweeps it with a broom containing seven sticks of a thorny bush. Afterwards he breaks the stick into small pieces and throws them away. This is taken to mean that the house owner has cleared his accounts. The mason is paid five rupees a day while the carpenter charges seven rupees per day. The unskilled labourers are given two to three rupees per day. The carpenter is given a suit of clothes and some foodgrains before dispensing with his services on the completion of the house.

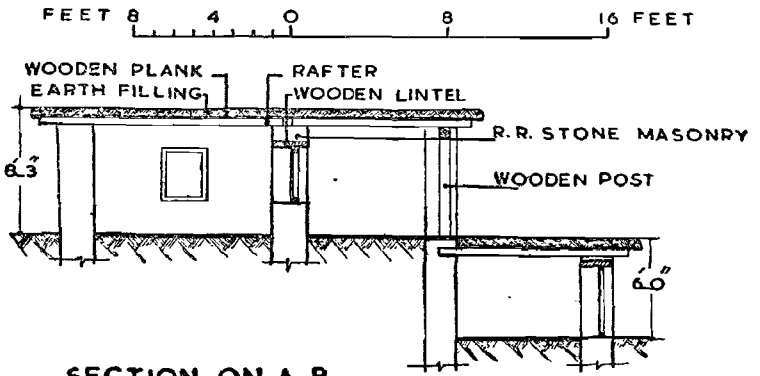
Before shifting to the new house the family performs *havan* and prepares *halwa* on the hearth which is lighted for the first time. Worship of various planets is performed. The family shifts to the house at the auspicious moment found by the priest.

Furnishing and the interior decoration are done by the family itself according to their taste and requirements. The interior decoration comprises of photographs of the members of family and calendar pictures of various deities and film actors and actresses. Some houses have albums and photographs of the ruling family of Jubbal, duly framed and hung on the walls. Decoration is generally concentrated in the upper storey.

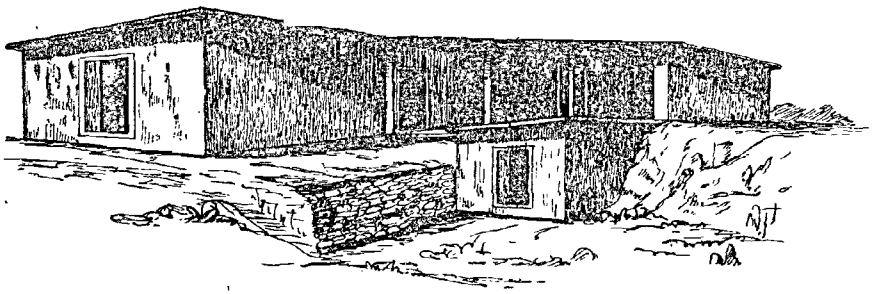
RURAL HOUSE TYPES—Line Drawings including ground plans and Elevations—Sirmur District

Serial No.	Tehsil/Sub Tehsil	Village (Hadbast No.)	Owner of house/caste	Main building material used in construction of house	Availability of material	Year of construction declared by owner	Approximate cost when constructed (according to owner)	Rooms and thier uses
1	2	3	4	5	6	7	8	9
							Rs.	
1	Paohhad Tehsil	Juhana (H. B. No. 243)	Ishwar Datt (Brahmin)	1. Wall—R. R. stone masonry 2. Roof—Planks and rammed earth	Main material available locally	1950	2,500·00	One store, one living room, one kitchen and a cattle shed in the basement
2	Rainka Tehsil	Rajana (H.B. No. 105)	Surat Ram (Rajput)	1. Wall—R. R. stone masonry 2. Roof—Slates	Main material available locally	1916 (Part) 1941(Part)	7,500·00	1. Ground floor—One store and one living room 2. First floor—One kitchen and one living room
3	Nahan Tehsil	Moginand (H.B. No. 142)	Sant Ram (Koli)	1. Wall—H. D. C. R. stone masonry 2. Roof—G.C.I. sheets	Stone available locally G.C.I. sheets from Nahan	1960	6,000·00	One kitchen and four living rooms
4	Paonta Tehsil	Kolar (H.B. No. 162)	Gokkal (Labana)	1. Wall—R. R. stone masonry 2. Roof—Thatch	Main material available locally	1950	1,000·00	One kitchen cum-living room

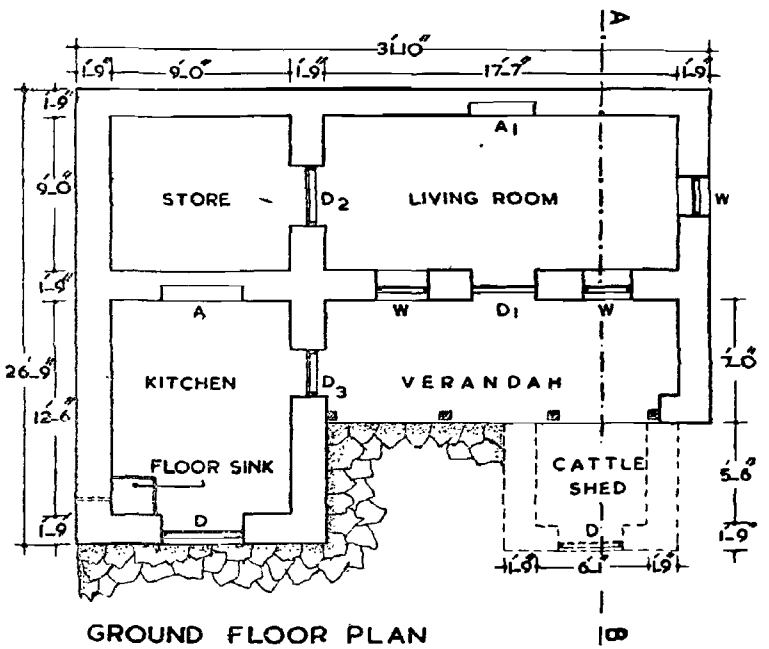
HOUSE OF ISHWAR DATT, JUHANA VILLAGE



SECTION ON A_B



PERSPECTIVE VIEW

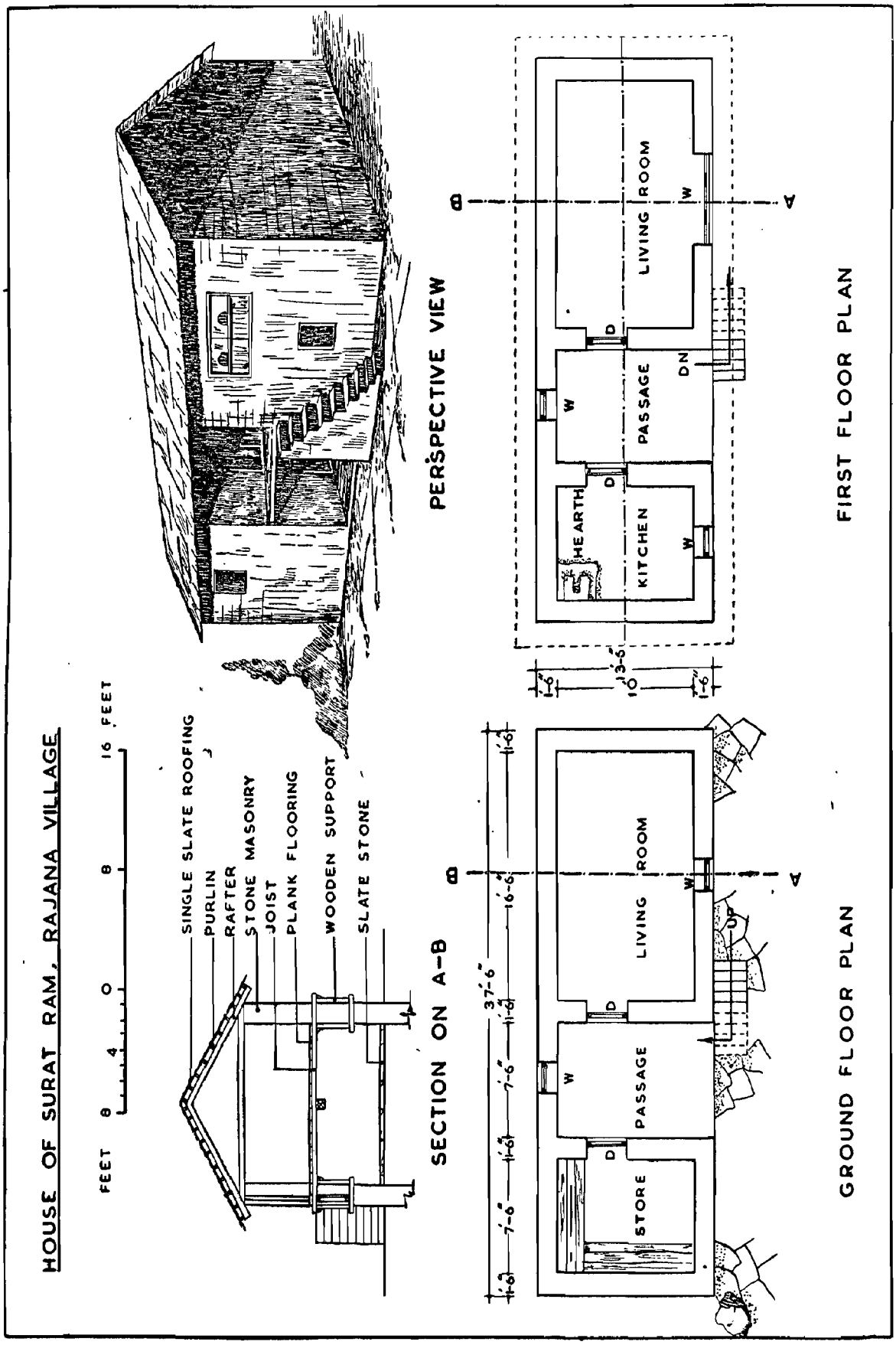


GROUND FLOOR PLAN

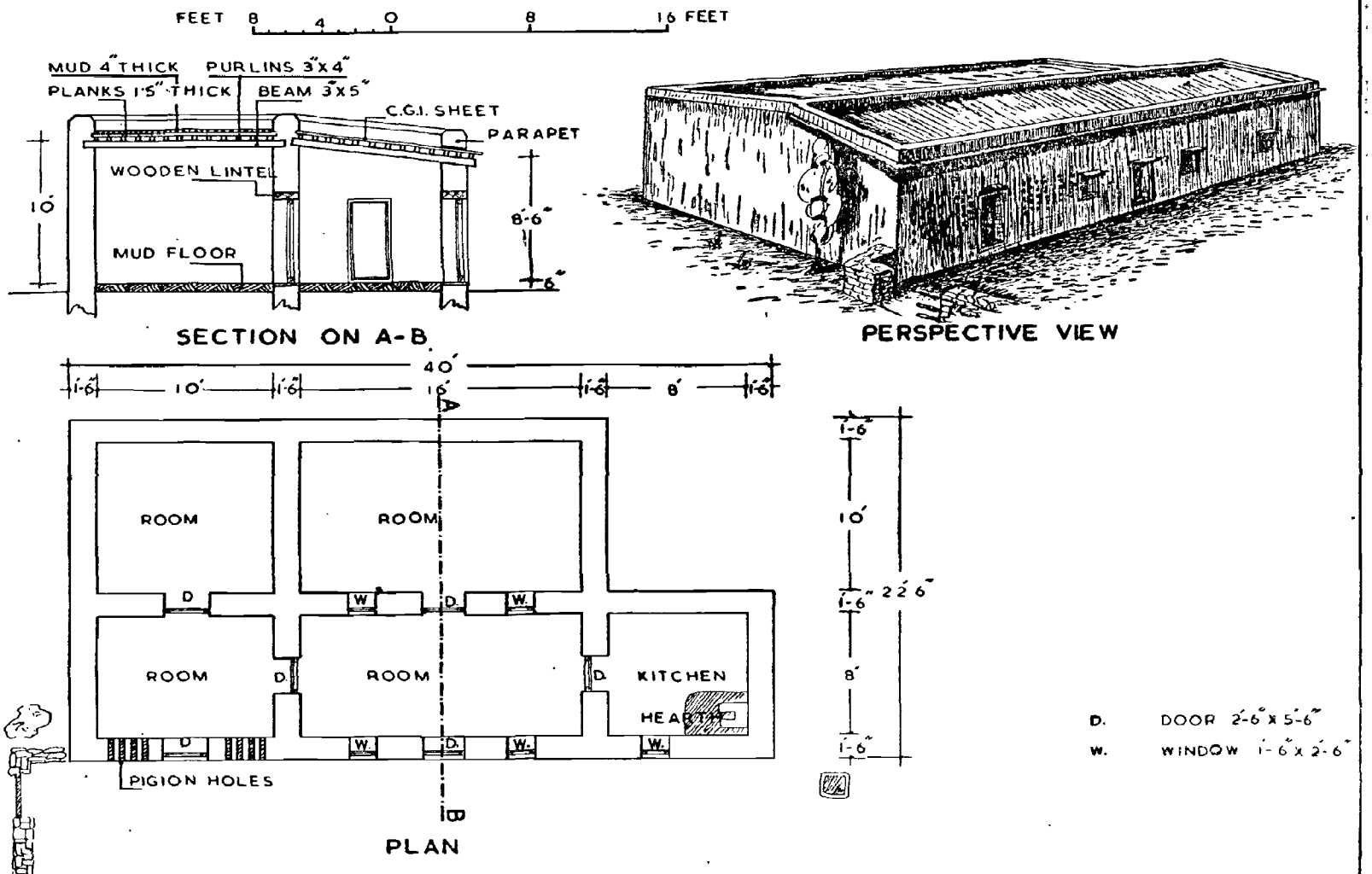
REFERENCES

A	ALMIRAH	4'-0"x4'-0"
A_1	ALMIRAH	3'-0"x4'-5"
W	WINDOW	2'-4"x3'-4"
D	DOOR	4'-0"x6'-0"
D_1	DOOR	3'-4"x6'-0"
D_2	DOOR	3'-0"x6'-0"
D_3	DOOR	2'-10"x5'-1"

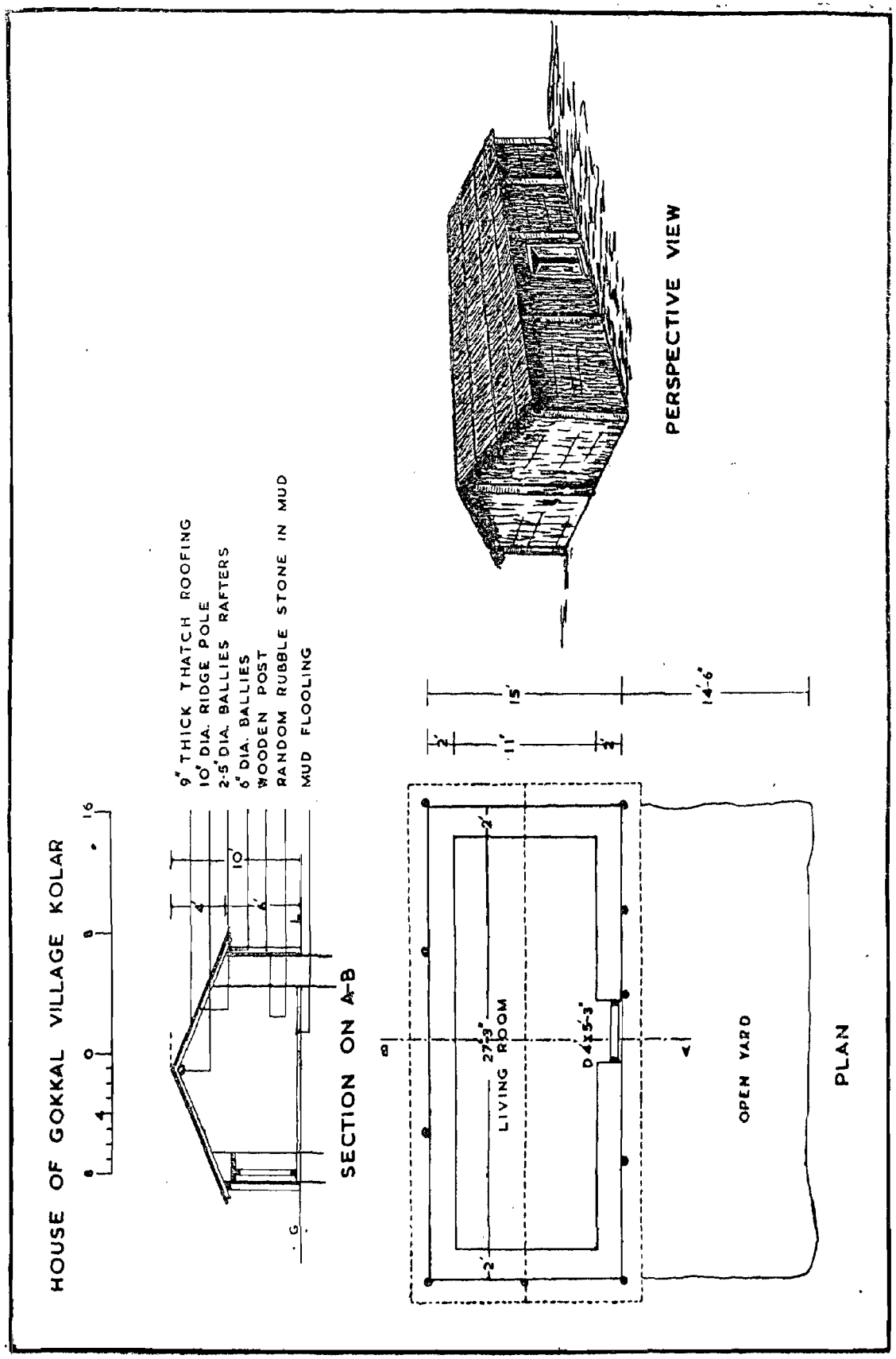
NOTE:— DOTTED LINES DENOTE BASEMENT


HOUSE OF SURAT RAM, RAJANA VILLAGE
FEET 8 4 0 8 16 FEET
SINGLE SLATE ROOFING
PURLIN
RAFTER
STONE MASONRY
JOIST
PLANK FLOORING
WOODEN SUPPORT
SLATE STONE
SECTION ON A-B
PERSPECTIVE VIEW
GROUND FLOOR PLAN
FIRST FLOOR PLAN
STORE
PASSAGE
LIVING ROOM
HEARTH
KITCHEN
PASSAGE
LIVING ROOM
37'-6"
16'-6"
13'-6"
7'-6"
1'-6"
1'-0"
D
W
DN
UP

HOUSE OF SANT RAM VILLAGE MOGINAND TEHSIL NAHAN



PAONTA TEHSIL



SIRMUR DISTRICT

Extracts and reprints

JOURNAL OF A TOUR THROUGH PART OF THE SNOWY RANGE OF THE HIMALA MOUNTAINS, AND TO THE SOURCES OF THE RIVERS JUMNA AND GANGES, BY JAMES BAILLIE FRASER, ESQ., 1820, PAGES 60, 112—114, 120-121, 124-125

"Nahan is a small town, but the buildings are of stone, cemented generally with lime; they are remarkably small, and all have flat roofs. The effect of the whole at first is singular, giving a strange idea of diminutiveness, like the abridgment of a town: perhaps this is necessarily produced by an unconscious comparison with the vast proportions of the surrounding objects.

It is built on the crest of a hill, which is so uneven that the whole forms a collection of petty ascents and descents. There is one principal street, that, like the others, which are very confined and short, consists of many small flights of steps, into which they have been built and cut, to the great convenience of the men, but by no means so of the cattle, horses particularly, which animal indeed seems never to have been intended for use in these regions.

There are few buildings worthy of notice in Nahan: the rajah's palace has a tolerably neat but not very remarkable appearance; and there are no temples of much consequence or of any splendour to visit; it has, however, for several years been in a state of decay, since the conquest of the Ghoorkhas ruined all the country.

The hill on which it is situated is part of the north-western boundary of the Kearda valley; and from this circumstance, when seen from the plains, it appears to be on a second range of hills, which indeed is so far the case, as the low hills that form the south-western boundary of the Kearda intervene between it and the plains; but, as will afterwards appear, there is no general division into separate or parallel ridges to be detected in the arrangement of the hills in this country.

The height of that point on which the town is placed has been ascertained by a series of calculations, which I have reason to think may be depended on, to be 1950 feet above the level of the plains.

* * * * * * *

The novel and singular style of the buildings here also contributed to the change in the scenery. The towers, which are so lofty and remarkable, are not the habitations of the vulgar. They are temples for the gods, and it is understood that no one absolutely resides in them; they are frequently ornamented with rude sculptures in wood.

The houses, however, are also more lofty than those we have left, consisting of two and frequently of three storeys, in the upper of which the family commonly resides, and this is surrounded by a balcony of wood inclosed, which projects from six to eight feet; beyond this the roof too projects some feet, so that the body of the house, below the balcony appears small and diminutive.

The lower storey is always appropriated to cattle, and if there be a middle one it is most commonly occupied by lumber.

Few, however, of the villages that we observed had any strong appearance of prosperity. Half the houses were in ruins, and some were totally deserted. They partook of the misfortunes of the State, and the severe rule of the Ghoorkha conquerors had been sorely felt.

To judge, however, by the difficulty with which cultivation is attended, and by the successful progress which has been made in covering the steep and lofty hills with crops, both here and in the country through which we have passed, the inhabitants must be a patient and industrious race, when it is considered that a spot of ground of any considerable extent seldom occurs where even the rude plough which they employ can be used without the previous assistance of art; that the side of the mountains must be cut and levelled to produce a field for tillage; that water must be conducted for the purposes of irrigation, frequently from a great distance; and when the insufficient means, together with the rude tools they possess to effect this, are observed, it will perhaps excite wonder that corn-tillage should have been attempted at all in a land that appears only calculated at best for grazings; and it must surely appear astonishing that the inhabitants, thinly scattered as they are, can raise as much grain as is requisite for

their own support, and can spare a portion to those of other districts and countries which are not so well supplied. Their method of cultivation is so ingenious and neat that it merits a particular description.

As level ground is seldom to be met with, the least rocky faces of the hills are cut into a succession of terraces, rising above each other; which operation produces a number of strips of level ground, more or less narrow according to the steepness of the hills, and more or less regular according to its ruggedness. Great labour and care are bestowed on this operation. It is generally necessary to build a retaining wall, to support the edge of the small strip of ground, of a height corresponding with that of the bank; and much attention is paid to levelling its surface, so that water may neither rest upon it, nor, in running off, carry away any portion of its scanty soil; but this exact level is also necessary to fit it for receiving the benefit of irrigation; and every rivulet (with which indeed the hills abound) is diverted from its course at a height sufficient for their purpose (consequently often from a great distance), and led by small drains, constructed with much neatness and skill, first to the higher cultivated spots, from which it flows to the rest, or is again collected into a stream, after saturating them, and carried to another and lower range of fields.

Sometimes these streams are carried across a deep dell by means of long hollow trees, supported by high piles of stones, for the purpose of irrigating the opposite side of the valley, where water could less easily have been conveyed from above.

This irrigating system is chiefly necessary for the rice crop, which, though not put into the ground till the rains have set in, frequently requires the assistance of artificial flooding. The spring and summer crop, however, of wheat and barley scarcely less require this aid, as showers are often scanty from the time of sowing till the corn is full.

This practice of cutting the hill-faces into small fields has given to them, all over the country, a peculiar ridgy appearance, which, next to their great ruggedness and steepness, chiefly attracts a traveller's eye: it produces a strange regularity, which frequently takes from the dignity of the land-scape.

It is surprising how universal this practice has been: there is no mountain side, however steep, where rock does not predominate, but shows this mark of former tillage; indeed, the traces are all that for the most part are seen, and this denotes either that the land becomes after some years unfit for tillage, and is abandoned for a new and more kindly soil, or that in former times there must have been a far larger population, and more extended cultivation, which has now been abandoned.

Both these cases may in some degree consist with fact, though I am led to think that the first is not common, as they are well acquainted with the uses of manure; and experience would soon tell them, whether a large tract of land was likely to repay their labours, without risking so much in reducing to tillage, by so costly a process, that which must afterwards be abandoned.

The latter case is too certain and too apparent. The population has diminished deplorably; every where, villages are seen in ruins, and fields run lately to decay; and, judging from present appearances as well as from general report, even corrected by allowances for exaggeration, we may safely conclude, that, before the Ghoorkha conquest, a great portion of the cultivation now waste then bore crops, and the villages now destroyed were then inhabited.

* * * * * * *

The height of the gorge we reached this day must be very great, for our whole march was nearly an uninterrupted ascent; but there were so many surrounding peaks of greater elevation, that no extent of view was to be obtained.

Rajgurh is situated not far below it, upon a projecting point like a terrace, that overlooks a large valley or basin to the northward. Above it, on each side, rise the loftier points of the ridge we had just crossed. This building is of no very great antiquity; having, it is said, been erected about eighty years ago. It belongs to the royal family of Sirmore, and has been inhabited by officers sent here to collect the revenues, who were occasionally changed at the pleasure of the Rajah. It is now totally in ruins, having been burnt by order of Runjore Sing within the last six months, on account, it is said, of the trouble

it gave the officers of government, probably in their collections.

It cannot, however, be called a fort; for the position alone would disqualify it for making any long or available defence, commanded, as it is, from several heights, which are so close as to allow musquetry to be discharged from them with effect. Nor do I believe it has any pretensions to so warlike a designation, as it even wants loopholes in any number from whence to annoy an enemy.

The building consists of a square wall, including, at each corner, a tower of rather more than twenty feet square, but which projects little or nothing from the wall: within, all round, are places for the accommodation of the inhabitants, chiefly in the Hindostanee taste; and the whole includes a square court, the area of which may be from thirty to forty feet each way. This has been well paved; and in the centre is a small tank, constructed with stone and lime, well plastered, in which fresh water, conducted from the hill behind, was collected.

The space between the outside wall and the court which formed the accommodation did not exceed fifteen feet in depth; and as the walls of the towers are thick in proportion to their height, the interior of these presented no extensive area.

They may have consisted of five or six storeys, raised to the height of forty feet; but their heights do not seem originally to have been equal. Balconies appear to have been erected all around, of wood, as the ends of the beams which have escaped the destruction of the fire may still be seen everywhere projecting.

Before this main building there was a court of inferior size, where troops were stationed, and the public officers were placed; but this is now so completely in ruins, that it is impossible to guess at its extent or shape; even the thickness of the walls it is difficult to judge of, but it appeared in some places to be from four to five feet.

The masonry work is extremely neat and good; it is built entirely of dry stone and wood; the former is met with, of a nature easily to be worked, and is well squared and rendered equal in thickness without much trouble; it is entirely slate, and, I believe, soon moulders and decays.

The stones are bound together by large beams of wood, which are built into the wall, lying along the external and internal faces, and pinned together through its substance: they extend the whole length of the side, and are firmly bound together at the corners.

The wood, I believe, is of a more lasting quality than the stone, and supports a building long after the latter would give way; consequently, when by any accident this framework is destroyed, the building instantly falls to pieces, and this is the reason of the completely ruined state in which Rajgurh appears, although so short a period has elapsed since it was burnt. I should have believed, judging from the infirm aspect of what remained, that a gradual decay of many years had succeeded the violence that first gave it to ruin.

On each of four hill-tops around it, in former days a watch-tower was kept, to warn against surprises, which frequently occurred in those turbulent times. A similar situation would be a noble one for a house of modern times in Europe, where happily, it is no longer necessary to combine the power of resistance and offence with the conveniences and comforts of a dwelling; for it overlooks a fine valley, varied with wood and cultivation, and a grand chain of mountains closes the view all around. The country, however, is rather too rugged and steep for comfort.

* * * * * * *

The hill we descended was entirely formed of slaty rock. Large lumps of quartz were lying about as if by accident, but no considerable part of the hill appeared to be formed of this stone. Small quantities of a stone, which seemed to be composed of sand or flint and clay, are met with; it is of a dark brownish grey colour, and breaks into laminae regularly like slate. In the nullah we saw large blocks of granite rounded by the torrents, which had evidently come from a great distance, probably from the bowels of Choor, whose grey and bare top is said to be composed of such masses.

Crossing the Peirowee, we ascended, and passing along the hills thinly covered with wood, and having much cultivation, we went through the little village of Kubeel, and reached Gudrotee, a village of considerable

size, where we halted for a little time in a country remarkably well cultivated, and where all the labours of agriculture were going on briskly. Land was under preparation for rice; while large quantities of wheat and barley, cutting and fit to cut, with a few patches of cotton, and of a species of pulse-bearing bush, well known in the plains as *urrurr*, or pigeon-pease, covered the valley and sides of of hills.

The soil seemed light, but sharp and good; and not a spot upon the lower part of the hills, where a spade could dig, was uncovered with corn; though here and there a larger extent than usual might be observed, forming fields of larger size, and little slope or undulation.

Gudrotee is a large village, built upon a point of the hill projecting above the valley, to which the ascent is steep. This is a favourite situation, every village being thus semi-insulated, where the ground admits of it, perhaps with a view to defence against sudden attacks; if so, much of the advantage of the position is lost by always being overlooked by the main hill, which ascends behind it, and which completely commands it.

This position seldom affords the advantage of shelter from the blast, and is generally rough, uneven, and circumscribed, so that no more obvious inducement presents itself for preferring such places than an idea of greater security from plunder.

This village, though larger and more thriving than most others, had many ruins in its very centre, and had evidently declined; whilst all around, others in view showed marks of violence and tyranny.

There were several towers here of from fifty to sixty feet high, built, as usual, all of dry stone, and framework of wood. Possibly a considerable portion of the ruins which every village exhibits may not be caused by the loss of its inhabitants, but by the old houses being deserted from the wood decaying, and the fabric consequently falling, and because they prefer building a new house of new materials, to rebuilding the old whose wood is decayed, and the stone shattered from time and its nature.

Several of the temples were ornamented with much carved work in wood. Their strange overhanging roofs were fringed with a row of small pieces of wood hanging down, resembling bobbins strung beneath the cornice, and each corner had the image of a bell in wood hanging from it. The figures of Hindoo divinities ornamented the doors and windows, forming a strange combination. A large beam, with notches cut into it at intervals, forms the only means of ascent to these lofty edifices, each storey being furnished with its separate rude ladder."

SIRMUR STATE GAZETTEER, 1934, PAGES 25-26, 66

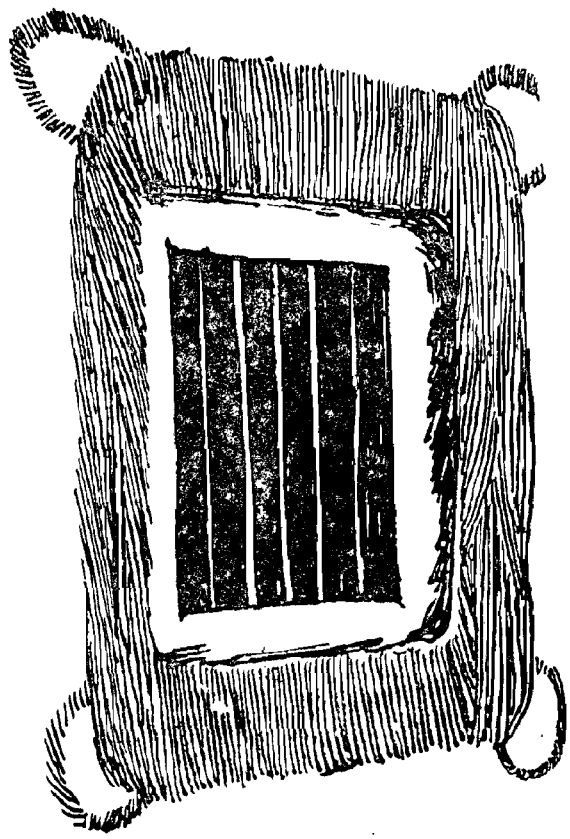
"*Towns and Villages*: The State contains only one town, Nahan, its capital, which had, in 1931, a population of 7,808 souls, including the residents of cantonments.

The increase since 1901 is 12,881 souls and since 1921 is 8,120 or 9.4 and 5.7 per cent, respectively. The State contains 962 villages. The average population per village (146) is lower than in any other Punjab District or State, except Chamba, 95 per cent of the population live in the villages. The village of the census returns is purely a revenue unit comprising a number of isolated houses and hamlets. Trans-Giri the ancient unit was the *bhoj*, which had a common meeting place for amusements and social or religious gatherings, subscriptions being raised throughout the *bhoj* in cash and kind for common objects, on account of their being under the management of a common Lambardar. The *bhoj* system was, however, disturbed at the time of the Land Revenue Settlement of 1947 Sambat (1890 A.D.), and gave place to a system of a separate Lambardari for each village (i.e., a group of houses with a defined area attached to it) or for a number of such village units. Each village or a large group of houses has a temple of its own, a common thrashing floor and a common stove for frying grain for *satu*. Both Cis and trans-Giri detached habitations (*dohchis* or bases) are common, being used in winter or summer according as the real house is too cold or too hot. Large villages are rare, and the tendency in the newly founded villages is to build a number of detached hamlets near the cultivation, in contrast to the older villages, which were compact, with *dohchis* near the water courses, pastures and fields.

Houses: In Nahan Tehsil the *zamindars'* houses are made of stone and mud, usually of one storey, and are built contiguous to one another in *abadis*, of which there are several

in each village. But besides the house in the *abadi* most *zamindars* possess an outlying dwelling house near their fields, called a *bas*. The cattleshed or *obera* is a separate building and is usually built at some little distance from the *abadi* as there is no danger of cattle-lifting.

Trans-Giri the houses are of a different type, being built of squared stone on a rectangular foundation, stout beams of deodar or some other strong timber being inserted after every foot or so of stone to ensure strength. These beams run the whole length of the wall and are equal to it in width. The houses are two or three storeys high, the lowest storey being about 5 feet and the second about 4 feet in height. The latter is often used for the storage of grain, the inmates living in the third storey. The upper storeys have each a verandah (*tung*), about 2 feet broad running round two or more sides of the building. The verandah is usually painted in bright red ochre. It is reached by stairs or, in the poorer houses, by notched beams. The walls of the topmost storey contains cupboards for household necessaries, and the whole space is often partitioned off into two or three rooms but only one door leads out from them on to the verandah. The roof is sloping and made of slate. Trans-Giri a house costs from Rs. 200 to Rs. 1,500, and as only one mason is employed it takes from one to ten years in building. During its construction the mason is fed by the owner, and when the house is finished a panchayat decides the amount to be paid as the mason's remuneration. In the Dun the houses or banglas are one-storeyed and made of mud or grass with thatched roofs."



A Window Decoration

Notes on House Types and Residential Pattern of Villages

MANGARH VILLAGE, PACHHAD TEHSIL

House Types: Houses are mostly single storeyed with flat mud roofs. Six houses have G.I. sheet roofs and three slate roofs. The number of rooms varies according to the means of the owner. Size of a room, in general is 10 feet × 15 feet, and the height varies from 6 to 8 feet.

25 households have only one living room each, 23 have two living rooms each. 11 have three living rooms each, 6 have four rooms each, whereas, there are only 5 households having five rooms each.

There is an underground grain store in every house known as *ogli*. This is built in the room behind the main room. It is called *khatti*. Besides this *darotha*, a long wooden box fixed in a room, is also used for storing grains. Separate cattle sheds have been built near the houses.

Although most of the houses have separate kitchens, there are separate bath rooms. Some space in the corner of the kitchen is cemented for washing the utensils, and bathing. The floor level of the kitchen is a bit raised from the usual plinth level of the house. The hearth is in a corner or alongside the longer wall and no chimney is provided. The smoke escapes through the doors and windows. The hearth is made of earth and stones. A small opening is kept in the rear of the hearth for keeping cooked food on it to keep the same oven fresh.

The houses in general have *kacha* mud floors. But well-to-do, have developed tendency of having cement floors.

Construction : New structures have been coming up slowly. Only expanding families erect new houses or extend the previous ones. Albel Singh has built a modern style house well planned having three storeys. Umrao Singh, a retired Deputy Director of Agriculture from Punjab has recently constructed a well laid out holiday home with a little kitchen garden around. But on the whole the construction work has been quite slow and rather intermittent.

The size and plinth area of the house depends on the site available for construction. When someone intends to construct a new house the site is selected in consultation with the family priest. The priest finds out the auspicious time for laying the foundation stone.

After the selection of the site and levelling, foundations are excavated to a depth of about 3′ and a width of 2½′. While laying the foundation stone a *kalash* full of water and two copper coins is placed in the foundation. Immediately after laying the foundation stone *gur* is distributed amongst those present. Bed of the foundations upto a feet height is filled with stones. Sufficient ramming is done to make it even and compact. Random rubble stone masonry is then done in off sets upto the plinth level. The gap between the wall and the excavated ground is then filled up with flints and earth.

The walls are built with stones, which are usually dressed. Clay mortar is used in constructing walls and at times dry stone masonry may be done.

The timber required by the villager for the construction of a house is available to him at concessional rates from the Forest Department. He has to submit his application to the Department through the Gram Panchayat. The daily wages for a carpenter and a mason range between Rs. 4.00 to Rs. 6.00 and for a labourer from Re. 1.50 to Rs. 2.00.

While erecting the main door *puja* is conducted by the family priest at an auspicious time. The priest ties a *kangan* of *mauli* thread to the door frame and sweets are distributed.

Doors, windows and niches are built in the walls during construction. Generally two windows are kept one on each side of the main door. After the completion of walls, rough planks are laid on the joists placed on the walls over which dry grass leaves are spread. Mud is then rammed over the layer of the leaves to the thickness of about 5 to 6 inches. A parapet having a slope towards outer side is then raised all around to prevent damage to the walls from rains. Small outlets are left in the parapet to drain out the rain water from the roofs. During rains if the mud roofs start leaking fresh clay is spread and rammed down. Sweets are distributed among children before laying the roofs. For floors inside the rooms the natural bed of the earth is watered and rammed. The waste material such as flints and

pebbles are filled in to raise the height of the floor to the plinth level. Well puddled mud mixed with straw is then spread to form a level finish. After the floor is half dried, cowdung coating is given to make the surface smooth and to plug the cracks.

Shutters of doors and windows may be fixed with hinges. In many cases these are provided with pivots. Paints and glasses were not common in the past but of late villagers are using these materials. Structural steel and other material are procured from Sarahan or Nahan.

Finally on an auspicious day after the house is complete, *griha pravesh* ceremony is performed. Before the ceremonial entry five to six unmarried girls are feasted and a *havan* is performed by the family priest to invoke the blessings of the gods. Near relatives and neighbours are also feasted.

The local names for various parts of a house are—

Door . . .	*Phali*
Foundation . .	*Neenv*
Floor . . .	*Mela*
Roof . . .	*Chhat*
Window . . .	*Taaki*
Walls . . .	*Dwal*

Residential Pattern: Mangarh habitation is scattered over gentle slopes of hills facing each other, divided by a *nullah*. Somewhere the houses are dotted over the fields and at places they are in clusters. The entire village is divided in nine small hamlets, namely, Palachi-ki-ber, Deve-ki-ber, Bagh, Dimber, Sallapan, Chareti, Pab, Sandhauli and Koti Thandal. These hamlets are connected with each other by narrow paths. The population of the village consists of Brahmins, Rajputs, *Dumnas, Chamars, Lohars, Badhis* and *Kolis* besides a Sikh household. On one end of the village are two temples dedicated to Lord Krishna and Shiva.

RAJANA VILLAGE, RAINKA TEHSIL

Residential Pattern: The houses in upper Rajana are closely built compared to lower Rajana where houses are built on a slope on both sides of the *kuhl* known as *banda*. In upper Rajana, the houses are so closely built that it becomes difficult for outsiders, during nights, to find their way. The houses in the village are approached by narrow and zig-zag paths.

In upper Rajana the houses of Rajputs and *Kolis* are intermingled. The Brahmins have built their houses at a higher level. A majority of the *Koli* houses are to be found below *kuhl* in lower Rajana whereas Rajputs dominate in the remaining portion. No Brahmins live in lower Rajana. *Badhis* and *Lohars* own their houses in lower portion of the village. *Chamars* have separate residential houses from the main *abadi*.

House Types: Houses are designed on the traditional pattern. In one house cement and concrete has been used in construction work and it is well ventilated too. Others are made of stone, mud and timber. The houses are identical in style but may differ in dimensions. The gabled roofs are covered with slates and the doors are generally very small. Only in three houses belonging to Rajputs, the doors are more than five feet. The house construction is influenced by the climatic conditions, Rajana being cold, the houses have minimum ventilation and thick walls to keep rooms warm during winter.

The houses, in general, are double storeyed. The ground floor is used as a cattle shed by some households whereas others have separate one room cattle sheds, built adjacent to the residential houses. Where the ground floor is not used as cattle shed, it is used for sleeping or for storing household goods and food articles.

The upper storey is reached from the ground below by a flight of steps built outside the house leading on to the wooden verandah in the upper storey. The verandah is covered with roof which is supported by wooden poles.

In front of every house, there is a compound. This is known as *ghana* and is paved with stone slabs. A low parapet wall is constructed all around it. The *ghana* has varied uses. At the time of social and ceremonial functions, it serves as a stage for gathering and dance. It serves as a *khaliyan* for husking, thrashing and winnowing of grains. Most noticeable thing about *ghana* is that it is kept more neat and clean in comparison to the rooms inside the house.

Walls are plastered with mud and coated with a white wash. White washing is done usually twice in a year on festivals like Bissu (Baisakhi) and Diwali.

There are no bath rooms attached to the houses and people bathe in the open. Hearths are made in one corner of the rooms.

Different parts of the house—local terminology

Mando	Ground floor
Uprad	Upper floor
Obra or Kando	Cattle shed
Ghana	Compound
Chulhada	Hearth
Kothar or Baday	Grain store
Rosyane	Kitchen
Dwar	Door
Jhee	Verandah
Chhindwali	Ventilator in the roof
Chhapper	Roof
Bada	Wooden beams
Kandal	Space between wall and ceiling
Phadkal	Stone stairs
Bheet	Walls
Maid	Floor
Dewad	Door frame

Material and Construction of Houses: The common material used in house construction are stones, slates and wood. Slate quarries near and around meet the requirements of slates and stones as well. The rough slate stones which cannot be dressed for roofing slates are used as stones for constructing the walls. Good quality slate quarry is, however, in village Bhalad, about twelve miles away, from where slates are obtained after getting a permit from the forest department on payment of fee. The slates are cut to standard size of 8×10 inches or 10×20 inches.

Timber for the construction is not locally available, and is procured from Jubbal forests. Habitants of this area had their forest years ago but these were cut down. They have now to depend upon forests situated miles away. From their own forest, they used to get timber for house construction free of cost, after getting the permission of the Divisional Forest Officer of the area. Now the timber is obtained from Government forests at market rates and not at *zamindari* rates, because they have no forest. The market rates are always high. Application for timber is submitted through the village Panchayat.

The material for construction of the house is collected by mutual help, which is called *haila lagana*. In this, villagers come forward for collecting the material for the owner at his request. The owner would ask two or three men from among the *Kolis* to quarry the stones and slates and cut the timber. They are served food in addition to some material help like grains. When sufficient stock of material is collected, about 15—20 men of all castes go and bring the material to the village. For days together, men are busy in fetching timber, stones and slates while the women are occupied in preparing meals for them. The *Kolis* are supplied cooked food from the owner's kitchen. When the main material has been collected, the owner arranges a grand feast. *Gulti, ghee* and *shakkar,* rice and *patindas* are served. Sometimes wine may be served. Timber of Deodar, Kail, *Gaihanoo, Khadik* is used for house construction.

Badhis, the village carpenters, help in designing and building the house. They are well-versed in wood and stone work. The construction of the house is done by them on a contract basis. For a double storeyed house having one room in each storey the contract value may range between Rs. 500.00 and Rs. 1,000.00, whereas for a bigger house having two rooms in each storey, the contract money may range from Rs. 1,000.00 to Rs. 2,500.00.

After selecting the suitable site, foundation is excavated about two feet deep. The first stone in the foundation is laid by the *Badhi* on an auspicious day and time and not by any other person. Stone masonry work is started directly from the bed of the foundation, till it reaches the plinth level and further masonry work is carried out according to the thickness of the walls.

Small niches are kept in the walls for keeping household goods. Stout wooden beams of Deodar or other timber are built in the wall horizontally, after every foot or so, as construction progresses. These horizontal beams are gripped into position by vertical wooden beams to ensure strength of the structure. Door frames and small window frames are fixed at appropriate places during construction of the walls.

After constructing the walls of the first floor to requisite height the two opposite side walls are further raised for laying a gabled roof.

The roofs of the houses in the village are two-sloped i.e., gabled. Wooden planks are fixed on rafters to serve as a bed for the slates to be nailed on them. Round vents are kept in the roof which serves as outlets for smoke and inlets for light in the rooms. Or we may say that they function as chimneys and sky-lights at the same time. At the time of rain or snow, these vents are closed with sliding slates kept for this purpose.

Some families have grain stores built in the upper floors. These are made of carved planks and occupy about one-third space.

When roofing of the house is complete, the floors are laid. Floors in the ground storey are paved with flat stones. As regards the upper storey, for floors, planks about $1\frac{1}{2}$ inches thick are placed over joists already fixed at the time of the wall construction.

As already stated, doors in the houses are very small and one has to bend down before one can enter the rooms. Door frame is made of stout timber and much importance is given to the sill of the frame. Door shutter is of one piece wooden plank of about 2"-3" thickness fixed to one side of the frame. From inside the door is closed by fixing a log of wood in holes made in the walls.

The window frame though large in size has a small opening, about 6"×9". The rest of the portion is covered with the planks. From outside they are ornamently carved, depicting patterns of flowers, human figures and birds. No windows are kept in the ground floor.

Ceremonies and Superstitions : Usually house construction is undertaken during winter when villagers are free from agricultural work. A day is selected by the family *pandit* to start the work. He is given about five seers of grains and one rupee by the owner. *Badhi* is also given some quantity of grains and one rupee.

While laying the foundation stone, a simple *puja* is performed and some *gur* is distributed. Till the foundation is complete, a day and night watch is kept, lest any enemy may put some charm in the foundation and bring ill luck to the owner and his family. The owner takes his meals at the site and keeps awake during night before a fire, guarding the foundation.

Usually, apart from the owner and the *Badhi,* no one else enters the area within the house foundation till the foundation is complete. The labour engaged will do work from outside whereas the *Badhi* will attend to work from inside the foundation. If any one trespasses, the *Badhi* has a right to claim by way of compensation anything the intruder carries on him at the time, be it the cap, coat, shirt or stick.

There is a belief among the people that a snake circles the house. Therefore at the time of laying the foundation stone, the *Badhi* secretly places first two stones in such a way as to leave some space in between them. This is done to provide a safe passage for the snake or this may be a device useful in letting out the subsoil water which would otherwise have damaged the foundations.

Brief *pujas* are also held when doors and beams are placed, and construction on the upper storey commences. Some quantity of cereals and one rupee is given to the family *Pandit* and *Badhi* each.

After completion of the house and before its occupation it is sanctified by a *puja* ceremony. During this *puja* family *pandit* ties *mauli* thread to *Badhi's* tools and to fore-arms of the labourers and owner and applies red *tika* to their foreheads. This is known as *gharash.* A grand feast is held to entertain the members of the household and the team of labourers. In the feast special dishes like *patindas, ghee, shakkar* and vegetables are served.

Living Accommodation: Changes in the design and material of house are not favoured. Materials like paints, varnish and window panes are not used.

4 households have only one living room each, 87 have two living rooms each, 13 three living rooms each and 54 households have 4 rooms each. Only 3 households have 5 rooms or more each. *Kolis* seem to be better off than others in the matter of accommodation.

Mogināṇd Village, Nahan Tehsil

Residential Pattern: The village has two main *abadis* known as *uparla bas* and *nichla bas.* The houses in the former have been built on a gentle slope and in the latter they are on a plain ground. Narrow lanes inter-sect the *abadis.* The houses have been constructed in

rows of three or four with some space in between them.

House Types: The houses are rectangular in layouts. The roofs are thatched called *chhappar*. A few houses have G.I. sheets or mud as the roofing material. Houses in most cases have two rooms, one of which is used as a kitchen and the other as a sleeping and living room. There is a verandah in front of the rooms in all the houses. Some banana trees are grown here and there in front of houses. Main doors of the houses do not face south as it is considered inauspicious.

There are windows in the *pacca* houses but *kacha* houses with *chhappar* have no windows. The houses are without baths and latrines. Men and women bathe in the open during summer. They also bathe at the bank of the streams. In one corner of the living room of some houses, a small *chara* made of cement and concrete is also provided where women or infants have their bath. Cattle sheds are separate and adjacent to the main houses.

Members of a household sleep in the room or verandah, as convenient. In a few households which have spacious accommodation, they sleep in separate rooms. In some houses, having *chhappar* roofs, kitchens are in the verandahs properly covered. Due to inadequate smoke outlets, the walls and ceilings of the kitchens are covered with dark soot.

Construction and Building Material: The village masons and carpenters design and build the houses. The wages to them are paid in cash. To build a new house, an auspicious day—*mahurat* is selected by the *pandit*. *Navratra* days in March-April or September-October, are considered auspicious for this. *Gur* or *shakkar* is distributed among the neighbours on the day chosen. The foundation is dug to a depth of about 2', or even more till firm ground is struck and filled with rubble or loose stones.

After completing the plinth and on placing in position of the door frame, sweets or *gur* is again distributed to labourers, near relatives and friends. The walls of the houses are built in stones and in some cement is used at joints and intervals in the walls.

As there is plenty of jungle around, timber is easily available. It is obtained on application to the Forest Department through the village *Panchayat*. The number of trees recommended by the Panchayat are usually sanctioned by the Forest Department at *zamindari* rates which are cheap. The *sanan* and *shisham* timber is used in a house for doors, windows and in some houses for ceiling also. Bamboo poles are used for roofing. Rest of the material are stone, mud and grass. The floor is made of mud and plastered with a thick coating of clay and cowdung.

Chhappar: Some skill is required in constructing a *chhappar* though it appears not to need it. *Khar* grass used for *chhappar*, i.e., thatching, is abundantly available in the vicinity of the village. Bamboo and a creeper, called *maljin*, which are used for making roof frames and tying the grass are also available. *Khar* grass is cut from the jungles in December and January when it is dry. The women folk and sometimes men collect it. The *maljin* is a long rope like creeper. After cutting, it is kept in water for at least a week to make it more durable and pliable.

Once the bamboo frame is prepared and fixed on the roof, the grass is spread. Two layers of grass are spread over the bamboo frame. The inner layer is one inch thick and the outer layer is six to nine inches. After laying the grass, it is pressed with long thin bamboo strips and tied with *maljin* ropes. The grass is spread over the roof by four to six persons and the spreading work starts from the lower portion upwards. Sometimes this is also done on the ground and the *chhappar* is bodily lifted over the walls of the house and tied to the beams. The construction is completed in one or two days. Thatch roofs are very cheap. For a house having two rooms and one verandah, the cost is about Rs. 30.00. Thatch grass is replaced after every four or five years. Bamboo is replaced after a period of about twenty years. The outer ends of bamboo frames are tied to iron hooks fixed in the walls as a precaution against storm, when *chhappar* may be blown off. This type of roof is economical to families having limited resources, and can be completed in a short period. When the old *chhappar* grass is replaced, it is not wasted and is used as manure in the fields. But there are two drawbacks. It has got to be replaced after every four or five years, and the material is likely to catch fire easily.

The houses are white-washed twice a year on the eve of Diwali and Baisakhi with a locally available white type of clay called *makol.* Rough drawings of peacock and flowers in cheap colours are done on the walls by elderly women of the households.

Parts of the house—local terms

Rasoi	Kitchen
Kood	Cowshed
Kotha	Room
Chhappar	Grass roof
Sawara	Verandah
Kiwar	Door
Galounchi	Pitcher stand
Ado	A small shelf in the wall
Tham	Poles supporting *chhappar*
Modian	Ridge of *chhappar*
Balli	Ridge pole

KAMRAO VILLAGE, PAONTA TEHSIL

Houses: The houses in Chauki and Shlana are compact, congested and with small *angans* or court-yards outside. The lanes and by-lanes are very narrow, whereas in Manana, the houses are widely spaced with wide paved court-yards in front and the lanes and by-lanes are also little wider. The houses in Chauki and Shlana generally face east or south whereas those in Manana face to the south. Chauki and Shlana are more exposed to wind than Manana. The people of Kamrao are very fond of substantial houses. In Chauki most of the houses are three-storey high and in Shlana though a majority of the houses are double-storeyed but quite a good number of houses have three storeys. In Manana almost all houses are double-storeyed. The approach to the upper-storey is by means of a stair-case outside the house. The lower-storey may consist of one or more rooms depending upon the economic position of the household and is called *obra.* The second storey is called *manjh* and the third storey *baud.* The front portion of the *obra* generally carries a covered verandah which is included in the *manjh* to form a spacious room much bigger than the *obra.* If there are more than one rooms on the ground-floor, one may be used for tethering cattle and the other as store room but mostly *obra* is used as a cattle-shed and it is the *manjh* and *baud* that is used for residential purposes. The kitchen is situated in a small portion of the *manjh,* which is partitioned off from the big room. In some cases, it may be entirely a separate room.

The *obra* is constructed with stones and mud mortar and Deodar or Chil wood may be used for the other storeys above. Slates are used as roofing material. So far as the accommodation is concerned, the village is not over-crowded.

The *obra* has only one small entrance with no windows or ventilators. The entrance is generally 4′ × 3′ and one has to bow low to get into the room. In the upper storey, window like appurtures called *ataalis* are kept with sliding panels. A round hole is also provided in the roof which can be opened or closed with the help of a sliding slate. It affords the necessary ventilation. This is called *chhandwalie.* New houses are not coming up fast in the village because according to villagers it has become a very expensive proposition to built a new house. The villagers complaint that they could not get adequate timber by fair means. It may be mentioned here that village Kamrao had acquired a certain amount of notority in the matter of pilferage of floating timber from Tons and Giri rivers. This pilferage has now been made difficult due to stringent measures adopted by the timber contractors. The Pradhan of the village Gram Panchayat gave out that he was persuading the villagers to adopt new methods of construction of houses, whereby they would not require much timber. In fact, one such house was under construction in Manana, in which more of cement and iron that wood was being used.

When a new house is to be built, the owner first fixes four wooden pegs in the four corners of the site selected for construction. *Parandah* or *mauli* (coloured thread) which is considered sacred is tied to these pegs. Within this demarcated site, the family priest conducts a *havan. Gur* is distributed to all present. Thereafter, for full eight days, one male member of the family sleeps there at night so that evil spirits may not defile the place. A temporary shelter is erected for the man who sleeps there.

The main materials used for the construction of a house are stones, wood and slates, all locally available, except timber which has to be brought from far-off places, or pilfered

from *ghals* in Tons or Giri. The stones may be dressed or un-dressed depending upon the means of the owner and mud is used as mortar. First a foundation to the depth of 2½′ is dug and filled with stone masonry in lime-mortar. Over the foundation, walls are raised and these are generally one foot and nine inches thick. The height of the ground floor or *obra* is raised from 6 feet to 6½ feet. The upper storey is entirely made of wood and so the mason has to be a carpenter-cum-mason, if he has to construct the entire house. The stones and slates are collected with the help of villagefolks on a day fixed by the owner of the house. One man from each household contributes free labour for the construction of the house. This is called *hella lagana.* The owner has to serve them with evening meals together with *sura.* Meat of a goat or sheep is generally served. Labour on other days is provided by the members of the household building the house, and they may, if they so desire, also engage outside labour at the rate of two rupees a day. The villagers do not get timber at concessional rates because they have no *bartandari* forest. It was, presumably, why that they resorted to pilferage of timber. In the past, it was a tedious job to build a house and occasionally a house took years to complete. The house of one Shri Sher Singh was reported to have been completed in a period of twelve years. This was so presumably, due to the shortage of carpenter-cum-masons because they were engaged simultaneously by more than one person. Previously daily wages were paid to them although they were served with free meals daily. It was only on the completion of the house that payment used to be made to the carpenter-cum-mason. The mode of payment was very interesting. On the completion of the house, he would climb the top and sit there. The owner of the house would ask him to name his price and when a bargain at a reasonable price was struck, it was then that the carpenter-cum-mason would descend down. He had to be given clothes also. The carpenter now-a-days may demand for one house, consisting of *obra* and *manjh* over it, anything upto Rs. 1,000.00. Masons from far off places are engaged in the village now at the rate of Rs. 6.00 per mason per day. One Shri Banwari Lal from Dehradun was working in the village and round about areas for a pretty long time. He gave out that besides Rs. 6.00 as daily wages, he was also given free meals and a bedding to sleep. He was reported to be doing very well indeed.

Very little iron-nails are used for fixing the timber and the planks are generally dove-tailed. Some of the houses are really very good from inside and speak of high degree of technical skill of the carpenter. When the house is complete, the *obra* is plastered with cow-dung from inside and outside and the upper portion, i.e., *manjh* and *baud* are varnished. The wood is first given a coating of *geru* dissolved in water. Thereafter, mustard oil is rubbed over it with a piece of cloth. This gives a light red colour and according to the villagers protects the wood from worms. The floor of a room is made of wood. One side of it in the *manjh* may be raised a little to be used as sleeping place. The floor is cleaned and scrubbed daily and kept meticulously clean. Once a week, it is scrubbed with cow urine, which is supposed to purify the whole house as well as drive away all the worms although the acidic smell of the cow's urine permeates the whole house. But they are used to that. The villagers do not use any charpoys and sleep on wooden floor. Few cup-boards and almirahs are so provided in houses, where articles of daily use may be kept. The people are very proud of their houses and maintain them with loving care. A few of the houses were built some twenty-five or thirty years back but look as if they were only about five years old.

The kitchen comes first while entering the *manjh* and a small separate room is generally provided for it. No shoes are allowed in the kitchen and these have to be put off out side the house. The *chulha* is built in a corner over thick slate stones laid on the floor fixed with the help of mud and a big thick slate stone is also laid against the wooden wall as a protection against fire. They do not provide any chimney and just above the *chulha* is a ventilator with the sliding slate shutter to act as outlet for the smoke. The kitchen fire is always kept smouldering and is ready whenever required. Kitchen utensils are also kept very clean. A separate space may be provided for keeping water vessels and in some cases, small reservoirs called *hauze* have been constructed and provided with taps.

It is not customary to provide bath-rooms and latrines in the house because all go out. The men take their bath outside at the spring

and the women wherever and whenever they feel inclined to do so. A few houses were noticed to have bath-rooms which were recent additions. Some households have sentry box-like constructions in the *angans*. These are made of wood with iron bars around, provided with doors and roofs. They are called *tands* and are used for storing maize cobs. As and when required, the maize-cobs are taken out and maize-grains extracted for grinding purposes. It was revealed that these *tands* are useful in keeping the cobs dry and free from the menace of rats.

On the completion of a new house, relatives and friends come to offer their congratulations to the owner, who throws a feast to them. *Ghee* and *shakkar* are served. The *Dhakis* are invited and they play on their musical instruments for which each receive a rupee.

Local terms for different parts of a house are—

Bhit	Wall
Chanbara	Central room
Dwar	Door
Ghar	The house of a rich man
Obra	Ground-floor
Manjh	Second storey
Baud	Third storey
Ataali	Window
Dhain	Floor of the ground floor
Aghal	A wooden bar used to barricade the door from inside
Baih	Beam
Rasoie	Kitchen
Kuthaar	Wooden box used for storing grains
Pharkion	Wooden floor of the first storey
Shir	Ladder
Tali	The house of an ordinary man
Tung	Balcony
Chhandwalie	Ventilator
Choh	Verandah floor

KOLAR VILLAGE, PAONTA TEHSIL

Residential Pattern: Except a very few *pucca* houses, which have been constructed, recently, the other houses of the villagers are more or less of a uniform type. The number of households in the village is 172. Banias have a different mode of living as compared to others. Slight variations are discernable in the living pattern of Brahmins and Rajputs, but they form a negligible percentage of the village population. Labanas, *Kolis, Chamars Lohars* and *Badies* have more or less the same kind of dwellings. The Labanas are in predominance in the village. There is no systematic division of the village strictly on the basis of castes. In one side of the village there is a Government school, two shops, a P.W.D. Rest House, quarters for the school staff and in another side spreads the whole village along the road-side. The majority of the houses are *kacha* with thatched roofing of *sargra khar* grown locally. Each household has a separate court-yard. There are separate sheds for cattle and cow-dung is kept very often in pits near the fields. The village lanes are well-kept, excepting during rains when they become dirty with stagnant water breeding mosquitoes and there is always the danger of malaria.

The living standard of the people is simple. A charpoy forms the only furniture in an average cultivator's house. Chairs and tables are kept only by 4 or 5 well-to-do-families.

House Types: House structure in Kolar is similar to that of its adjoining areas in the Punjab and Uttar Pradesh. A majority of houses are *kacha* built of mud walls with thatched roofing. Very few are *pucca* made of bricks. The roofs of such houses are flat whereas *kacha* houses have gabled roofs. With the exception of one, the houses in the village are single storeyed.

Generally the foundation of a house is dug 2′ to 3′ deep and it is filled with stones. The walls are made of mud and the width of the wall is generally $1\frac{1}{2}'$ In majority, each house has one room. It is used as a kitchen-cum-living room. *Chulah* is in on one end of the room, separated from the rest of the room by keeping a *kothi* in the centre. *Kothi,* as it is locally called, is made of clay and is used for storing cereals. The length and breadth of a *kothi* is usually $6' \times 4\frac{1}{2}'$. This serves the purpose of a resort of screen to divide the room. The main door is the only source of light and air in the house. There are no ventilators.

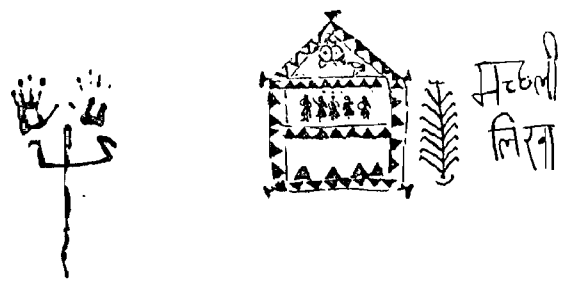
The floor of houses are of mud beaten level. *Gobri* plaster (mixture of cow-dung and clay) is applied at regular intervals to the floors. The walls are plastered on all sides with local clay.

The walls of mud, which are built by local masons, do not involve much of skill in construction. Between two planks mud is filled in and rammed by *mungries* and walls raised up. The height of the front and back walls is 5′—6′, whereas it is about 9 feet in the case of side walls, because the roofing is angled on the side walls.

Timber is supplied to the villagers by the Forest Department on concessional rates for which they have to apply through the Gram Panchayat.

Local names of the house parts are—

Foundation	*Neev*
Foot step on the door	*Sardal*
Frame of the door	*Chhokhat*
Wooden support for a roof	*Thambi*
Wooden supports in the room	*Thamb*
Ridge pole	*Balla*
Roofing Grass	*Sargva*

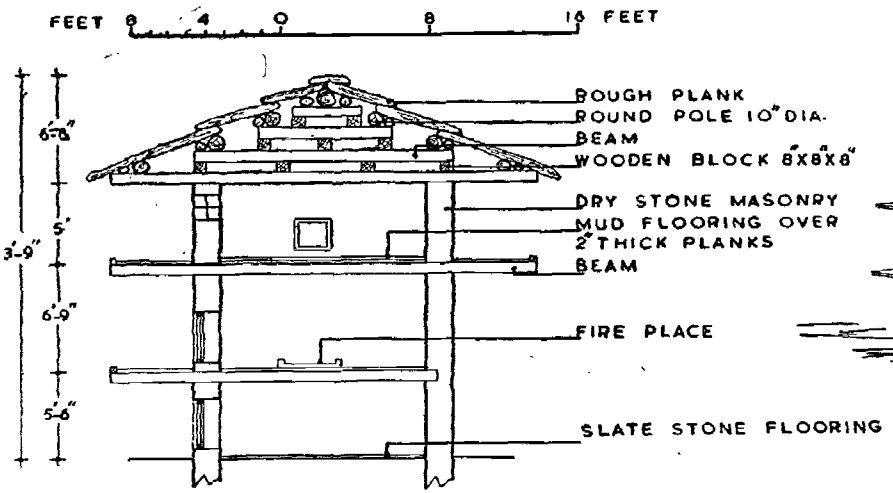


Wall Drawing

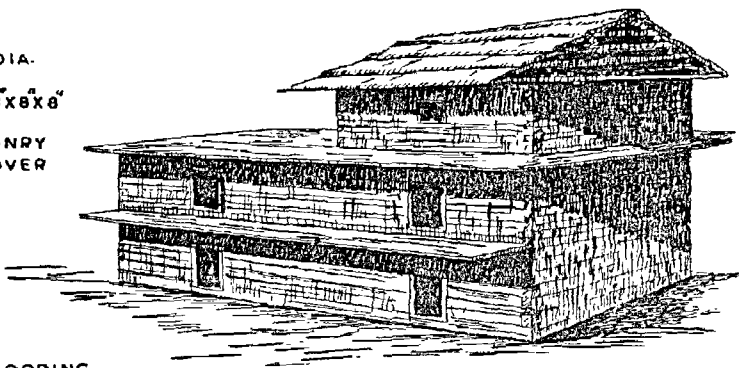
Rural House Types—Line Drawings including Ground Plans and Elevation—Kinnaur District

Serial No.	Sub-Division	Village (Hadbast No.)	Owner of house caste	Main building material used in construction of house	Availability of material	Year of construction declared by owner	Approximate cost when constructed (according to owner)	Rooms and their uses
1	2	3	4	5	6	7	8	9
							Rs.	
1	Nachar Sub-Division	Nachar (H.B. No. 167)	Thakur Singh	1. Wall—Dry stone masonry 2. Roof—Planks	Main material available locally	Not known to the present owner		1. Ground and First floors—Two living rooms in each 2. Second floor—Thrashing room
2	Kalpa Sub-Division	Koti (H.B. No. 38)	Dokun Dandub	1. Wall—Dry stone masonry 2. Roof—Rammed earth	Main material available locally	Not known to the present owner		1. Ground floor—Cattle shed 2. First floor—Kitchen-cum-living room
3	Poo Sub-Division	Kanum (H.B. No. 55)	Raptau Ram (Negi)	1. Wall—R. E. stone masonry 2. Roof—Planks and rammed earth	Main material available locally	Not known to the present owner	Rs. 15,000	1. Ground Floor—One cattle shed and one store 2. First floor—One living room and one store 3. Second floor—One living room

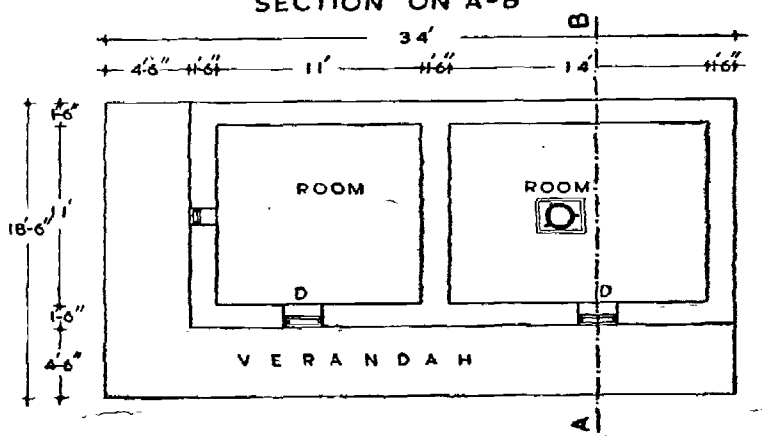
HOUSE OF THAKUR SINGH, NACHAR VILLAGE



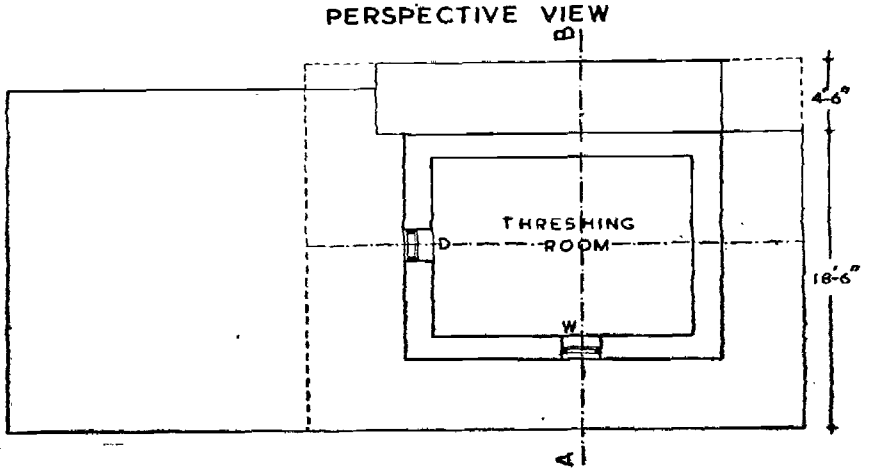
SECTION ON A-B



PERSPECTIVE VIEW



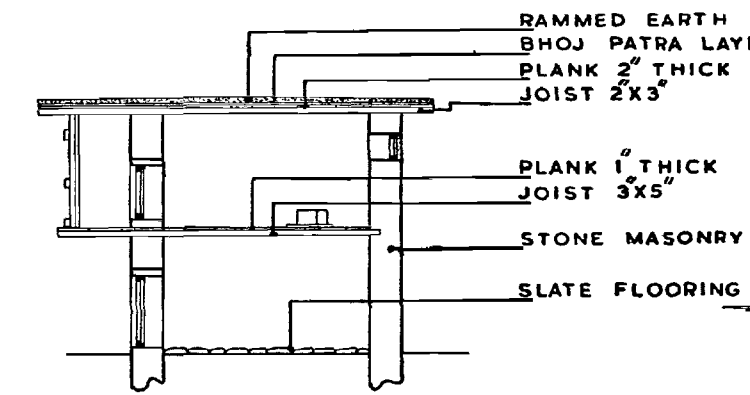
GROUND & FIRST FLOOR PLAN



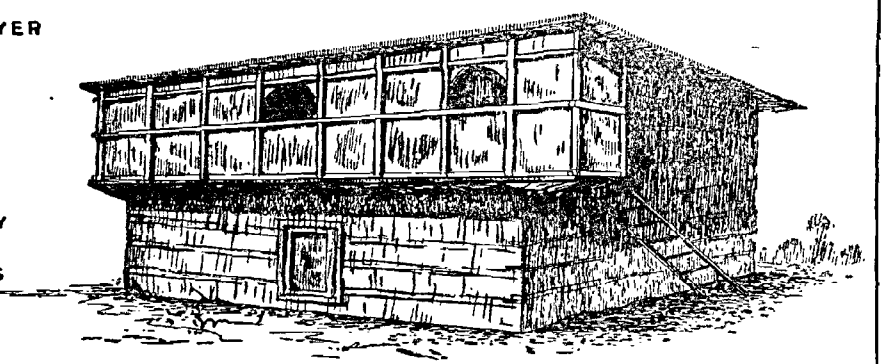
SECOND FLOOR PLAN

NOTE—TEMPORARY REMOVABLE STAIR IS USED

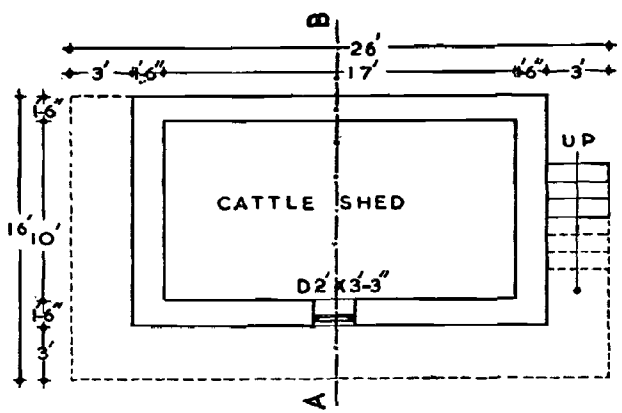
HOUSE OF DOKUN DANDUB, KOTI VILLAGE



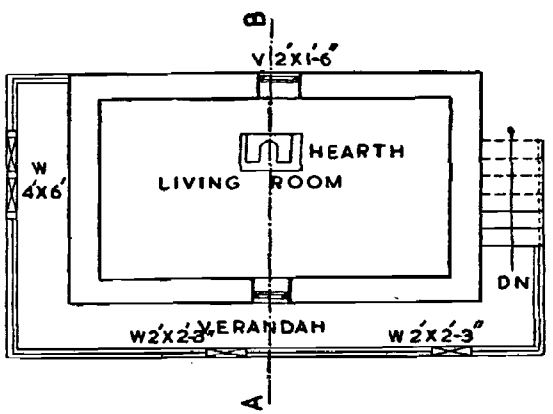
SECTION ON A-B



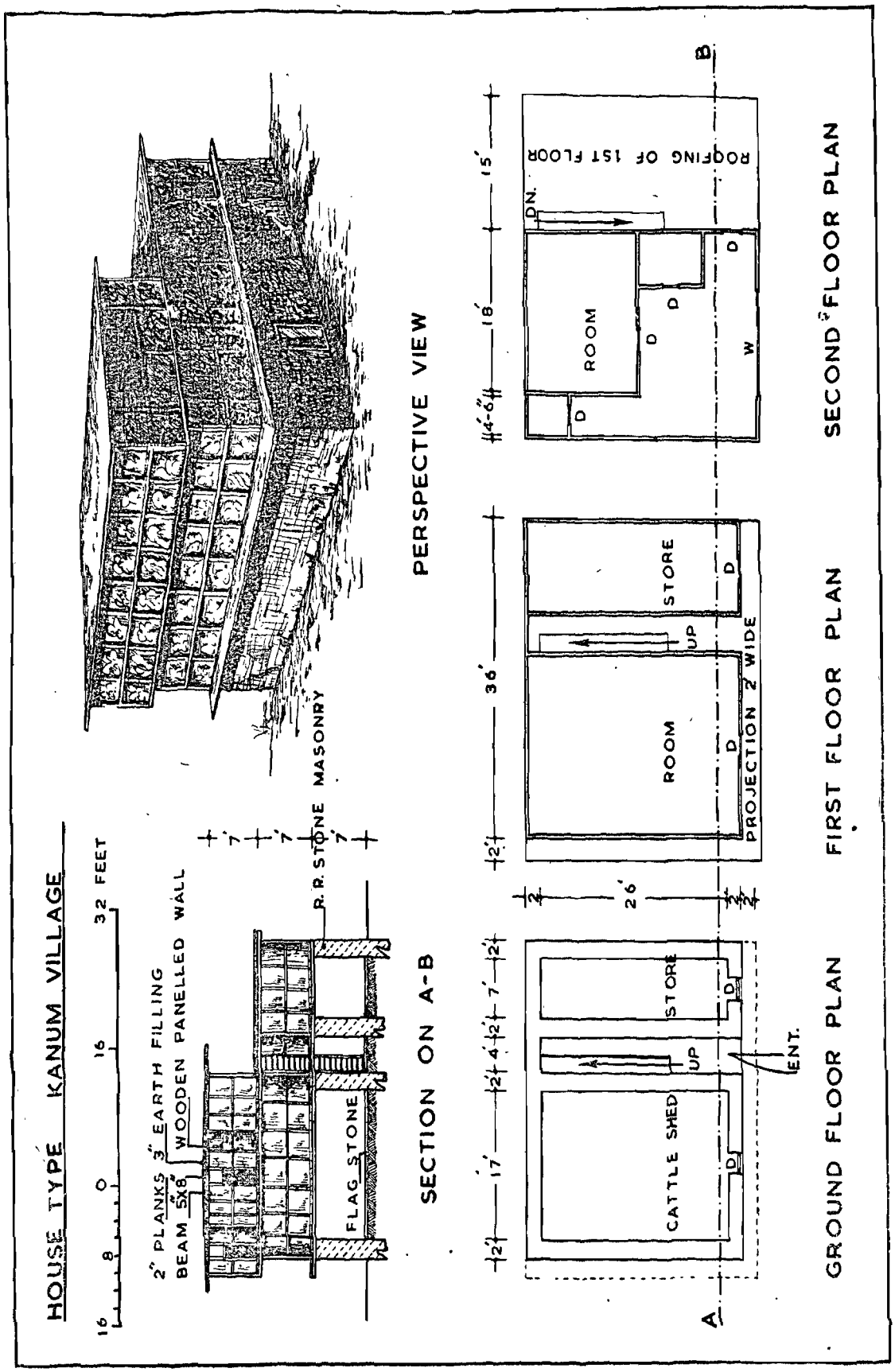
PERSPECTIVE VIEW



GROUND FLOOR PLAN



FIRST FLOOR PLAN



Poo Sub-District

Extracts and Reprints

"TOURS IN THE HIMALAYAS, VOL. II" BY MAJOR SIR WILLIAM LLOYD AND CAPTAIN ALEXANDRA GERARDS, 1840, PAGES 147—148.

"A mile beyond this is Numgea, the last village of Bushahr, containing eight houses, planted in the midst of desolation. Adjoining on the opposite bank of a small stream, are fields of barley, cheena, coa, phapur, and turnips, some apricots, and a few grapes. The houses are built of granite, but their structure ill corresponds with the durability of the materials. The want of forests to supply the timber necessary to give a support and union to the walls, as in all the other parts of the country, is the source of this misfortune; for the granite blocks resist their rude implements of architecture. The crops here are very backward, and it will not be harvested till a month hence. Elevation is not the agent here: 9300 feet is much inferior to other spots where the grain has ripened. It is the site and exposure that regulates the activity of the crops. The mountains on every hand are of a stupendous height, those immediately at the back of the village subtend an angle of 38° and exclude the sun till eight o'clock. The heat generated during the day, in so profound a glen, is great, but the very cause of this retards the development of vegetation; since the long absence of the solar warmth is more than a counterbalance to its short and powerful ardour. The strata of the rocks that were visible, dip down the stream at an angle of 20°. Across the Sutluj is seen the village and temple of Tuzheegung, where a few Lamas reside at the height of 12,400 feet and beyond it rises the colossal Purgeool, twenty-two thousand five hundred feet (22,500) high, with an elevation of 19°".

"AN ACCOUNT OF KOONAWUR" BY THE LATE CAPT. ALEXANDER GERARD, 1841 PAGES 84—86, 122—124

(Lower Kinnaur)

"*Villages, Houses*: The villages are in general large, and the houses spacious and even elegant. They are built of stone and wood, two storeys high, and are either slated or flat roofed; the last, which is most frequent, is formed of layers of birch bark, and covered with earth. The houses have projecting wooden balconies, and are often white-washed with a shining kind of mica, which looks well. The detached houses have the appearance of English cottages. In some few parts they are wholly constructed of keloo wood, are compact, and resemble water cisterns. The doors are often folding, and open inwards, and to the outside are fastened iron chains, the other ends of which are fixed to the balcony above; they are quite slack, and I could never find out any use for them.

There is a blacksmith and carpenter in each large village; but they are indifferent workmen, and for the construction of the temples, they get people from the lower hills.

The household furniture consists of little more than some keloo chests for keeping grain, raisins, and apricots, a weaving apparatus which is very simple, spindles for twisting worsted, back-baskets, skins for holding flour, butter, and spirituous liquors, brass and iron cooking pots, wooden plates, a stone mortar for expressing oil from the kernel of the apricot, a hand mill, a lamp or two, a smoking pipe, a tea-pot, and sometimes a few china cups and saucers. Bedsteads are almost unknown; and the earth is of broken granite, unfit for pottery, so they keep water and oil in vessels of different shapes and sizes, made of juniper wood, with iron hoops, and resembling those called cogs by the Scotch Highlanders.

Temples: The temples of the Deotas (Deities) are magnificent, and adorned with a profusion of costly ornaments. There are two or three in almost every village, and sundry miraculous feats are ascribed to the gods to whom they are dedicated, scarcely one of whom but has the credit of having removed a vast rock or mountain, for the purpose of rendering the roads passable, or of some other like achievement. Each god has generally three distinct

houses; one for himself, another for his furniture (these two are built of stone, and slated), and the third, which is constructed of wood, is small, well raised, open all round, and supported on posts; in this the god is placed on grand festivals.

The goddess in greatest repute is Kalee in her most horrid form, to whom human sacrifices were offered at no distant period. I have heard of their taking place not more than twelve years since; and they existed at the famous temple of Bheemakalee in Sooran, where the Busehur Rajah resides in summer, at a later time, and were not finally abolished there until the British Government got possession of the Hill States, in 1815.

The people usually attend each temple; and on the mornings and evenings they beat kettle drums, and sound trumpets.

Great sums are expended upon the temples. which are often of cut stone; they are lofty buildings, visible at a distance, towering above all the other houses in the village. They have roofs * * * * * ; and projecting balconies, embellished with neatly carved wooden flowers and fringes."

(Upper Kinnaur)

"*Villages*: The villages are neat and some of them large; they are commonly in number of small detached portions and Shipke, is a considerable place; I have got the names of twenty-one of its subdivisions, each of which contains several houses, and there are probably more. The houses are usually of stone, but owing to the scarcity of wood, which is a necessary material in their construction where stone cannot be cut, they do not look so well as those of the lower parts of Koonawur. They are of two stories, with flat roofs, and white washed.

* * * * *

Temples: There are many kinds of buildings and temples peculiar to the Lamas; the most common are Tumuli, named *Mane*, consisting of a dyke of different lengths from ten to two hundred feet, two broad, and three or four high; they are constructed of loose stones without cement, and upon their tops are numerous pieces of slate of all shapes and sizes, carved with sentences in the Oochen or sacred character. "Oom mane," &c., is the most frequent inscription, and from some superstitious custom in passing these tumuli, the Tartars invariably leave them on the right hand, and will sooner make a considerable circuit than pass them on the other side. I have seen several so situate, that it was necessary to go round a quarter of a mile or more. There is often a pole or two in the middle, and sometimes a flag attached to it. Captain Turner says, "that as the engraving on each side begins at opposite ends, the Bhoteea in passing is careful not to trace the letters backwards: but this is certainly a mistake, since the writing is from left to right, the same as English, and in leaving the *Manes* on the right hand it must be always traced backwards".

"PEAKS AND LAMAS" BY MARCO PALLIS, 1939, PAGES 61—62, 64—70

The Ganges—Sutlej Watershed: "When the first of our party came in sight of the houses, a tall figure detached itself from a group that was holding a discussion on the veranda of the temple and came running towards us; it proved to be the headman, who, with marks of profound respect, made us welcome and explained that he had been expecting us. We wondered how he came to have heard of our approach, and it transpired that the Superintendent of Hill States, Simla, had, unsolicited by us, very kindly written to inform the Raja of Bashahr that we were coming over the Nela and he, in turn, had sent word to all his people to receive us hospitably; this order was faithfully observed in all the villages under his jurisdiction.

Chitkul is almost entirely built of wood, and every house, as well as the principal temple, is adorned with notable carvings, in which, unlike the woodwork observed in the Ganges valley, Mughal influence is hardly apparent. The style of design is based on square forms and seemed to us to have a connexion with that of the older Jain temples of the north of India. The temple was a masterpiece of the woodworker's craft, with rich floral devices, elegant verandas and pierced panels. A small detached pavilion standing in the open space close by, was still more perfect. Round it hung a fringe of wooden drops, which produced a curious soft jangling in the wind, like the ghost of a xylophone.

Chitkul divided its allegiance between two traditions. The temple already described, which

was dedicated to the *Devta* or local divinity, was nominally Hindu; but there was another newer temple, looked after by a ragged and unprepossessing lama—a veritable tramp—which was Buddhist. * * * * * * To the first shrine we were not admitted for fear of pollution; but the second, like all Buddhist places of worship, is open to everyone. This contained some crude mural paintings that nevertheless had a certain liveliness. In particular I remember the figure of a huge slate-coloured Warden brandishing a sword, a St. Michael barring the way to Heaven against the wicked.

* * * * *

The central part of the Baspa valley is friendly and park-like, with stretches of fertile farming, alternating with conifers and groves of walnut. In places we found wild apricots bearing small but palatable fruit. Sangla, the richest of the villages, is a station of the Forestry Service. The Forestry Officer, Mr. Deans, was in residence accompanied by his wife and two friends and they kindly invited us to spend the night. They were the first English people that we had met since leaving Mussoori many weeks before and we had almost forgotten how one behaves when faced with china, knives, forks, napkins and a tablecloth. Pulling ourselves together we managed to acquit ourselves creditably, but only by a great effort.

Below Sangla the scenery becomes rather uninteresting: we hurried through it impatient to see the Sutlej. That great river, which at this confluence has already run over three hundred miles of its course, is so impressive that it seems immediately to reduce the Baspa to the inferior status of a minor tributary. There is something awe-inspiring about the Sutlej, which other rivers do not share. Man is not alone in feeling its secret power, for according to certain authorities, Nature herself recognizes it by making the river into an easterly boundary of the kingdom of the goats. The horned species that are to be found farther east of that line, despite their goat-like appearance, are all sheep or antelopes, with the one exception of the t'har. The ibex, whose range extends even as far west as Spain, when he comes to the Sutlej, hears a mysterious voice whispering in his ear: "Thus far, but no farther!"

* * * * *

The Hindustan Tibet Road: "On quitting Chini the woods begin to thin out rapidly and the country takes on the character of semi-desert, with patches of cultivation only at points where the waters of snow-born torrents can be tapped for irrigation. Here the beauties of the landscape are quite different from those of the wooded regions. There are open views and vivid colours. We felt sudden stirrings of emotion each time we came to greenness after hours of walking through parched country. The combined effect of dry air and average altitude of about 8,000 feet is extremely exhilarating. The flora changes to the arid type: thyme and other aromatic herbs and various thorny plants are scattered sparsely over the hillsides; only high up, close to the melting snows is there any grass for summer pasture.

Such a climate suits the apricot: orchards surround each village, and the trees appear from a distance like little dark green islands in a golden sea of barley. The houses are well built and the general aspect of the villages is much neater and more prosperous than in Garhwal. As one approaches the frontier of Tibet, timber becomes scarce, and the chalets and carved wooden temples with their high-pitched roofs give way to an exclusively stone style of architecture with flat roofs. The roofs are used for drying piles of apricots, which do not rot, but are turned by the sun's rays to every shade between orange and deepest crimson. When dry, they form a staple winter food.

On entering a village, the road passes through a gateway something like a lych-gate; under its pointed roof is placed a *chorten* or *stupa*, to give it its better-known Indian name, the Buddhists' emblematic monument which replaces the crucifix of Catholic lands. *Chorten* means literally "receptacle of offerings" or "reliquary": some of them do shelter relics of saints as a protection against the entry of evil influences; others again are cenotaphs. The interior of the gateway consists of a shallow dome from which rows of saints *** *** peer down gravely upon the traveller. These paintings are excellent and probably of considerable age, though, judging by the freshness of the colours, some of them have been renovated in modern times.

Besides *chortens*, each entrance to a village is marked by a *mendong* or *Mani* wall, a low

cemented breastwork upon which innumerable flat stones carved with sacred texts in low relief have been laid, the accumulated offerings of local deity. The commonest text is *Om mani padme hum* from which the name is derived. Its significance will be explained later. Where such a wall occurs the road divides, leaving a free passage on either side of the *Mani,* so that passers-by, whether men or beasts, are enabled to walk on its left side, that is, turning their own right sides towards it. It is an invariable rule that any sacred object must be passed on the left; neglect to do so will be considered both disrespectful and unlucky. There is a popular saying: "Beware of the devils on the left-hand side". To turn the right flank is a sign of assent to the doctrine inscribed on the stones or enshrined in the *chorten;* the left side is turned towards the devils, personifying sins and errors, in token of defiant rejection of their blandishments.

The basic food of the people in this land *** *** is barley, first parched and then ground into flour; in this form it is consumed. It is called *tsamba,* and takes the place of bread. *** *** Frequently it is eaten mixed with buttered tea to form a kind of stiff porridge; when dry it is not unlike sweetened sawdust—an acquired taste. Along the Sutlej excellent potatoes are also grown and a sort of white radish, the size of a turnip. Rice is imported and a little sugar. Very little meat seems to be eaten; the chief, and almost the only source of fat, is the butter melted into the tea. To this must be added apricots fresh or dried. On this diet both men and women maintain a magnificent physique. They have lovely teeth in spite of the fact that they do not often chew hard substances. Children are not weaned early and it has been suggested by a distinguished dental surgeon that sucking up to the age of two years or more may be a factor favouring a perfect development of the jaws.

* * * * *

At the time of our visit lamasery was being drastically reconditioned as it was becoming dilapidated. We were fortunate in seeing the work in its early stages. The temple had been partly pulled down and the walls had only risen again to half the intended height. Round the courtyard, which was encumbered with timber and stones, the residential buildings were arranged; cells occupied the upper storey and access was gained to it by a "ladder", that is, by a tree trunk with nicks cut in it, more alarming than many a rock-climb.

The work was being directed by a tall and dignified-looking person in a long robe, with a silver chain round his neck, from which hung a cylindrical charm-box. His beard was sparse and his hair gathered into a pigtail. Across his forehead were scored three parallel wrinkles as straight as if they had been drawn with a ruler. He was introduced to us as a painter from Ladak who had been engaged to be the capo maestro; under his senior monks acted as foremen, whilst for labourers he had juniors and peasants of both sexes who were giving their spare time as an act of devotion. Thus it could be claimed that the entire labour employed was amateur, except for the director. But it must not be forgotten that the habit of building is common in this country; most people would have done such work at some time or other on their own houses, so that they could not be described as quite unskilled. The masonry and wood-work were excellent. It was probably the artist's intention eventually to line the walls with paintings. It was indeed exciting to witness the same process by which our own cathedrals and parish churches were built in the Middle Ages, when ecclesiastics had a practical understanding of construction and could collaborate intelligently with their technicians without being helplessly at their mercy: whilst the laity contributed that voluntary labour which best adorns a sacred purpose and edifies the donors much more than a money offering. The most surprising architectural feats of antiquity were not accomplished by architects trained by a protracted university course to draw elaborate plans, with every single detail prejudged, in an office; nor was the planning of a church handed over to Messrs. X—, the athiest, and Z—, the cynical capitalist. The processes of building, except in the case of structures which verge on engineering, are evidently not beyond the comprehension of the average person. I wish we had thought of offering ourselves and our men to take part in the building. It would have been a rare experience; but, as so often happens, the idea occurred to us too late, and can only be added to the list of missed opportunities.

The painter invited us to follow him up the ladder, into an upper chamber supported on

pillars and furnished with some elegance. He was using it for a workshop and a number of unfinished figures of painted wood were drying in a corner. We were also shown a scroll-painting.

* * * * *

There was a separate temple in the village known as "The House of the Kangyur" (the collection of canonical scriptures corresponding roughly to the Bible) where, in semi-darkness, an enormous number of scrolls hung, all rather dusty, but including among them some extremely fine examples".

"FOUR MONTHS' CAMPING IN THE HIMALAYAS" BY DR. W.G.N. VAN DER SLEEN, PAGE 116

"This special visit gave us an opportunity we should not otherwise have had of visiting a village off the beaten track. The roads in most cases here only skirt the villages. All the houses in this place were of two storeys, the upper storey having a large balcony, or rather verandah. From a distance they looked quite pretty, many of the verandahs being decorated with carving. But on closer inspection you discover that the lower storey is only a stable in which sheep and goats, milch goats as well as others, and a couple of yoke oxen all live happily together. The manure from the stable is dumped in a heap in front of the open door. *** *** By means of the verandah you gain access to the living-rooms through an entrance so low that you are forced to bend nearly double, and once inside have to sit on your heels. The rooms which measure only about 7×11 feet, are empty except for a few old rags in one corner that do duty for a bed, while in another corner is a clutter of copper pots and pans, the family kitchen and table utensils. Some of the dishes are beautifully wrought and the goblets are of copper with a silver foot. The rest of the family property will be found as usual hanging round the necks or in the ears and noses of the women".



Temple at Kilba:
"In the Himalayas and on the Indian plains" by C.F. Gordon Cumming.

Note on house types and residential pattern of villages

NACHAR VILLAGE, NACHAR SUB-DIVISION

House Types: The main material used for house construction is timber and stones. The houses are generally three storeyed. The ground floor is used as cattleshed. The first floor is for living purposes whereas the top-most storey is the thrashing floor.

The first two storeys have generally two rooms each. The third storey may contain one room with an open verandah in some. A few houses have four or five storeys.

The size and the plinth area of the house depend on the site. The necessity of a new house arises only if the old one has become unserviceable or the family has grown too large for the house. Recently a number of new houses are being constructed because the villagers have started renting out their houses to the government servants posted there. The Block Development Office has installed pre-fabricated aluminium huts for their staff and offices.

When someone intends to construct a new house, first thing, of course, is the selection of the site. Since goddess Ukha controls every walk of life, the site has also necessarily to be approved by her. The bearers of the palanquin of the goddess perform a dance and if the palanquin tilts towards the clod of soil taken from the site, the site is considered to have been approved by the goddess.

The auspicious months for house construction are Vaisakha (April-May), Jyaistha (May-June) and Asadha (June-July), whereas, the auspicious days to start the work are Sunday, Monday, Wednesday and Thursday. Beginning has always to be made in Shukla-paksha, the period of bright moon.

Foundation to a depth of about two to three feet is dug and the foundation stone is laid after performing some little *puja,* by making an offering of *poltu, halwa* and wine to the stone. The foundation stone is always laid on the right side of the main door to be fixed in the ground floor.

The walls are built in main of stones. If the financial position of the owner permits, the stones are dressed otherwise not. Upto the plinth height the construction is in stone masonary. The material of the wall above plinth level consists of wood and stones. Wooden beams are built in the walls after every second or third layer of stones. This acts as a sort of frame and binder. The wooden beams are necessary since no mortar is used. These wooden binders in the wall make the structure strong enough to resist the shocks of earthquake also, though the villagers may not be aware of the fact. No lintels or arches are provided over the doors. The wooden beams in the wall serve this purpose. No regular windows or ventilators are provided. In some cases small apertures are provided.

At the time of fixing the first door frame, *puja* is again held and offering of *poltu,* wine and some *halwa* is made to ensure peace and happiness to the family.

The height of a room varies from 5 to 8 feet. When the four walls are raised upto the top floor room height two opposite walls are further raised forming slopes for laying the gabled roof.

Roofs are made of wooden planks, since slate or other roofing material is not locally available nor is it possible to import these because of heavy transport charges.

The house is plastered with a mixture of cow-dung and mud from inside only. Provision for separate kitchen is not made and people cook their meals on an iron tripod over the fire lit in the centre of the living room. This is called *meling.* There is no regular chimney and smoke outlet provided. The smoke escapes mainly through the door. They go to answer the call of nature in the fields or in the nearby jungle.

In most of the houses there is a cornice in a corner of the room. This is dedicated to the family god Kimshu who is supposed to reside there. He is worshipped on every auspicious occasion.

The floor is made of wood, because wooden floors are warmer during the winter. Wood being the main constituent, there is always a likelihood of fire hazard with the slightest carelessness. Kashpo, one of the settlements of the village had a fire accident in 1943 in which more than a dozen houses are said to have been gutted. Again a few years later a score of houses of this hamlet were gutted.

The living rooms are low and contain only one door small in size and there is no ventilation. On the walls and the ceilings a thick deposit of soot can be noticed. White washing is never done, since lime is not available in the area.

The room may not conform to the present day standard but serves the purpose of the villagers in an admirable way. It keeps them well protected during severe winter months. The whole family sits round the central fire which is never put out in winter and keeps the room warm and enables them to pass the extremely cold nights in comfort.

Generally, for lighting purposes torch wood splinters called *jyokhties* are used. The splinters are either of kail or chilgoza wood, and give good light, although the smoke emitted is very thick. Since it costs nothing, the villagers prefer it to kerosene lamps. The cost of one kerosene bottle in the village is rupee one. If someone uses a kerosene lamp it is of the wick type without a chimney. Hurricane lanterns are of course used by a few well-to-do people especially for outdoor work.

The upper storey has a verandah along its three sides. Small windows like apertures are provided in closed verandahs.

The timber required by the villagers for the construction of a house is available to them at concessional rates from the Forest Department. They have to submit their applications to the Forest Department through their village Panchayat.

A separate *kothar* or store room for grains is constructed at some distance from the main house. The underlying idea in a separate *kotharis* to save the foodgrains in case the main house meets with some mishap. A *kothar* is a rectangular structure. It is divided into four compartments with small openings at the top of each compartment. Access to it is through a small low door. Brackets are also provided on its walls on which can be stored dry meat or dry fruits.

When a house construction is finished *gaurasing* is held. Customarily mason-cum-carpenter, who constructs the house, is not given daily wages. Instead, when the house is ready, the carpenter is invited to *gaurasing* ceremony along with his family and a grand feast is held for him in the evening. Next morning he is given a *thali* full of *ghee* and five to seven rupees. In addition, he receives clothes for his wife and himself. Often his wife is given *dhaglo*, the silver bangles, weighing from 20 to 30 *tolas*. It is customary to please him on this day, and if he remains displeased he would curse the family. This curse is called *chul*. In *gaurasing* ceremony a general feast is also thrown to friends and relatives. This ceremony used to be performed by all castes except *Badhis*, who constructed their own houses. But even in the case of *Badhis* a general feast for friends and relatives used to be given. But this custom is fast disappearing and the masons and labourers are being employed on daily wages. The daily wages for a labourer are Rs. 2.50 to Rs. 3.00 and for a mason from Rs. 4.00 to Rs. 5.00.

The local carpenters seem to welcome this change in custom. Since government buildings are fast coming up, a number of masons have come from Kangra District for constructing the government buildings in Nachar and round about area.

Wood Carving: Exquisite wood-carvings used to be done on the wooden walls, doors and on the wooden verandahs to decorate the house. In comparatively old houses and in the temples we find beautiful motiffs and patterns carved on the wood. No paint, varnish or protective coat is given to the wood work which on account of constant exposure to wind, rains, snow and sun have become weather beaten.

KOTHI VILLAGE, KALPA SUB-DIVISION

Residential Pattern: The village is not laid in any systematic manner and houses have been built wherever a suitable plot of land was available. Somewhere they represent a cluster of ill-shaped dwellings with small narrow by-lanes and elsewhere the houses are scattered. The entire village is in fact a mushroom growth of houses. Apart from *Kolis* who must maintain a separate settlement of their own, all others i.e., Rajputs, *Lohars* and *Badhis* live inter-mingled. The *Kolis* were kept separate because it was revealed that they used to eat the flesh of dead animals including the cow in the past and also by virtue of their being leather workers. They had to maintain a separate settlement to follow their profession of tanning of

leather etc. They have, however, given up eating flesh of dead cow now but still follow leather work.

House Types: The houses in the village are generally two storeyed. The ground floor is used as cattle-shed and the upper storey for living purposes. The upper storey sits flat on the ground floor. Generally each storey is made up on one room, although 3 to 4 room houses also exist in the village. The size and the plinth area of the house depend upon the site available for construction. Only about a score of new houses have been constructed during the last ten years. The necessity of a new house arises only if the old one comes down, or the family becomes too large for the house. When some one intends to construct a new house the first thing, of course, is the selection of the site. Every one tries to have a house with a sunny aspect, although the direction depends upon the locality of the site. As goddess Chandika controls every walk of life in the village so the site has also necessarily to be approved by her and for this purpose a clod of soil is placed near the palanquin of the goddess. The bearers of the palanquin perform a dance and if the palanquin tilts towards the clod of soil the site is considered to have been approved by the goddess.

Foundations to a depth of about two to three feet are dug and the foundation stone is laid after performing some little *puja*, by making an offering of *poltu, halwa* and some wine to the stone. The foundation stone is always laid on the right side of the main door. The walls are built with the help of stones. If the financial position of the owner permits, the stones are dressed otherwise not. After every foot of stone wall, wooden beams are built in the wall. This acts as a sort of frame and binder and the wall does not give way under the weight of the stones. The wooden beams are necessary because no mortar is used.

At the time of fixing the main door, *puja* is again held and offering of *poltu, halwa* and wine are made to ensure peace and happiness to the family. Walls are raised generally to a height of about 7 feet. No regular windows or ventilators are provided in the walls except that in some cases small apertures are provided.

The roofs are generally flat—and are made up of wooden frame over which one or half inch thick layers of *bhojaptra* are laid which are available locally. This is followed by a thick layer of beaten earth. There are six houses with slate roofs having slopes. The house is plastered with a mixture of cow-dung and mud from inside only. No cup board etc., are provided in the walls. Provision for a separate kitchen is not made. They cook their meals on an iron tripod over the fire lit in the centre of the living room. This is called *meling*. There is no regular chimney and an outlet called *dusrang* is provided in the roof which besides serving as an outlet for smoke also serves the purpose of sky-light. At the time of rain or snowfall the hole is closed with a stone slab always kept handy. The people seldom take bath and whenever they feel inclined to do so they either go to the springs or bathe in the open. Therefore, no bath rooms are attached to the house. The room gives bare and bleak outlook, as it is never white washed and the soot from the open hearth keeps on depositing on the walls.

In every house there is a cornice in a corner of the room. This is dedicated to the family god Kimshu who is supposed to reside there. He is worshipped on every auspicious occasion.

The floor is made of wood, because wooden floors are warmer during winter. Wood being the main constituent, there is always a likelihood of fire hazard with the slightest carelessness. A few years ago a house in the village was completely gutted by fire causing a good deal of loss to the owner.

The room may not conform to the present day standard but serves the purpose of the villagers in an admirable way. It keeps them well protected during severe winter months when the whole family sits round the central fire which keeps them warm. The central fire, is never put out in winter. No charpoys are used and the entire family sleeps on the wooden floor. Generally, kerosene lamps are not used for lighting purposes and instead torch-wood splinters called "*jyokhtis*" are used. The splinters are either of chilgoza or kail wood.

The upper storey has a verandah running round its three sides. This verandah is generally covered but in some cases it is open. Small windows like apertures are also provi-

ded in the closed verandahs. The verandah is called *togang* and the apertures are called *boning*.

80 households have only one living room each and 37 households have to themselves two living rooms each. Only 8 households have three living rooms each, whereas there are only 3 households who have got 4 living rooms each. Oddly enough, besides the Rajputs, the *Kolis* seem to be well off than other castes in the matter of accommodation. Table I show the households by number of rooms and by number of persons.

The timber required by the villagers for the construction of a house is available to them at concessional rates from the Forest Department. They have to submit their applications to the Forest Department through their Gram Panchayat and the sanction is then granted. The concessional rates at which they are allowed timber by the Forest Department are given in Table II.

TABLE I

Caste	Total No. of households	Total No. of rooms	Total No. of family members	Households with one room		Households with two rooms		Households with three rooms		Households with 4 and more rooms	
				No. of households	No. of family members	No. of households	No. of family members	No. of households	No. of family members	No. of households	No. of family members
Rajput	75	122	478	40	192	26	207	7	66	2	13
Koli	28	38	165	21	112	5	40	1	7	1	6
Lohar	10	13	75	7	46	3	29	..	..	..	..
Badhi	11	13	61	9	52	2	9	..	..	..	..
Aggarwal	1	2	2	..	..	1	2	..	..	..	..
Jat	1	1	1	1	1	..	..	..	..	..	..
Brahman	1	1	2	1	2	..	..	..	..	..	..
Chamar	1	1	2	1	2	..	..	..	..	..	..

TABLE II

Girth of tree measured at 3 haths or 4′ 6″ from ground	Deodar Rs.	Kail Rs.	Walnut Rs.	Others Rs.	Species
For a tree not exceeding 2 haths (3′) in girth	0·50	0·12	1·50	0·12	IV
Exceeding 2 haths but not exceeding 3 haths (4′—6″) in girth	0·50	0·25	1·50	0·12	III
Exceeding 3 haths but not exceeding 4 haths (6′) in girth	2·00	0·50	1·50	0·12	II
Exceeding 4 haths but not exceeding 5 haths (7′—6″) in girth	2·50	1·50	1·50	0·12	IA
Exceeding 5 haths but not exceeding 6 haths (9′) in girth	4·00	2·00	1·50	0·12	IB
Exceeding 6 haths in girth	5·00	2·00	1·50	0·12	IC & ID

A separate *kothar* or store room is constructed at some distance from the main house for storing grains.

When a new house is complete *gaurasing* is held. Mason-cum-carpenter, who constructs the house is invited alongwith his family and a

grand feast is held for him in the evening. Next morning he is given a *thali* full of *ghee* and some money. In addition, he receives clothes for his wife and himself. Often his wife is given *dhaglo,* the silver bangles, weighing from 20 to 30 *tolas.* That is all the mason gets for constructing a house. It is customary to please him on this day. In case he is displeased he would curse the family. This curse is called *chul.* But this custom is fast disappearing and the masons and labourers are being employed on daily wages now. The daily wages for a labourer are Rs. 2.50 to Rs. 3.00 and for a mason from Rs. 4.00 to Rs. 5.00. In *gaurasing* ceremony a general feast is also held for the friends and relatives of the family. This ceremony used to be performed by all the castes i.e., Rajputs, *Lohars* and *Kolis* except *Badhis,* who constructed their own houses. But even in the case of *Badhis* a general feast for friends and relatives used to be held.

The local carpenters seem to welcome the change in custom, since government buildings are fast coming up. A number of masons have come from Kangra District for constructing government buildings in Kalpa. Even in Kothi the construction of an irrigation tank and a primary school building was done by the masons from Kangra.

KANUM VILLAGE, POO SUB-DIVISION

Residential Pattern: As a tradition rather than a rule of the illaqua *Negis* have separate *abadies* from *Kolis* (Chamang), *Lohars* (Domang) and *Carpenters* (Ores). There are caste divisions and the housing layouts reflect them. The scheduled castes have their houses at some distance from those of the *Swarn* castes.

The scheduled castes live at the bottom and towards the sides of the village. The top *abadi* situated sharply on the slopes is of *Negis.* First of all at the top on the eastern direction of the village is Lundup Gamfel Gunfa, a beautiful Buddhist monastery, where the Head Lama resides with his disciples. Down towards the Sutlej River sprawls the village in three blocks. The houses of *Domangs* (*Lohars*) are on one side at the bottom of upper Kanum and on the other side at the bottom are three households of *Deoti Chamang* who are said to be the original inhabitants among other *Kolis.* The rest of the houses of *Kolis* are at the extreme bottom.

On the western direction above the present Hindustan Tibet Road, there is a P.W.D. rest house, a small shop and a building which was lately constructed for a Panchayat Ghar. For the time being this is being used by the High School. Along the road side there is a small hotel opened about three years ago. Besides the Lundup Gamfel Gunfa on the top there are three other temples. Locha Lama temple is in the upper Kanum and the temple of village deity Dabla is in the central Kanum, the thickly populated area of the village. Buddhist library where books written in Tibetan script are kept is called Kanjur Gunfa and is attractively situated in a clean and tidy locality where there is no congestion of houses. Beside the Kanjur Gunfa a double storeyed house designed on a modern style was under construction.

For water supply there are *kuhls* in the village. One *kuhl* serves the upper Kanum and another serves the central and lower localities. Main source of these *kuhls* is the Kanum *Khud* (stream) locally called, *Gottang Lungfa.* Literally *Gottang* means *Gharat* in the local dialect and *Lungfa* means *khud.* On the steep, stoney and slippery banks of this *Khud* are eight *Gottang,* they are being managed by *Ores* (carpenters).

Houses: It is an interesting feature of residential pattern in the village, that some of the villagers who are comparatively better off, have their cattle sheds built apart from their residential houses. Otherwise, in general, on top of the cattle sheds are built two storeyed structures. The entrance is from the side doors. The residential rooms are not open and airy, and have small windows, rather holes which are quite insufficient to provide enough light and air. Three *Negis* in the village, who are economically well off have constructed their houses on better designs by providing ventilation and separate baths. A recently constructed house has glazed windows. It is a common feature of the residential pattern of the village that they have dry latrines in every household on one side in a corner of the first floor. This is locally called *chhakcha.*

The housing pattern is conditioned by climate and the available site. The houses in Kanum are of the general pattern adopted throughout Kinnaur. The structure is either square or rectangular in layout having flat

roofs. The houses built on slopes look as if arranged in tiers one above another. Except a few, the houses are in three blocks. They present a beautiful view from the opposite side.

Out of a total number of 113 buildings only 15 are two storeyed and all the rest are three storeyed. The building material consists of stones, timber, *burche* (local bushes) and *bhojpattar*, all locally available. Stones and timber are required for walls whereas *burche* and *bhojpattar* are used for roofs. The walls are constructed in a frame work of wood filled in with dry stone masonry. Plastering is seldom done and the materials of which the walls are made of are easily noticeable at first sight.

Mostly the houses face the south. Whenever a new house has to be constructed the Lama has invariably to be consulted about the direction that the entrance to the house should face. The structure of a typical house at Kanum is given below.

It is a three storeyed house and stands erected on a slope. The foundation of the house is said to be about 3′ deep and filled with stones. Due to slope, there is no plinth and walls of the house have been raised direct on the foundations. The material used for walls is dry stones filling the frame work of beams which are either of *deodar* or *chilgoza* wood. These wooden beams vary in thickness. Neither mud nor any other plaster has been used on the outer portion of the walls, but a thin plaster of local clay has been used on the inner sides of the walls in the rooms, after construction, obviously to fill the chinks. It is very difficult to distinguish the plaster because thick deposits of soot have completely blackened the walls. Of late, in a very few cases, villagers have started white washing their houses both from inside and outside.

The ground floor called *bong* is kept for tethering cattle. There is an open level space in the front though not very wide and is enclosed by breast high walls. This serves as a courtyard. In the centre of a wall in the ground floor a small door provides entrance. One has to bow considerably while entering the room. Except the little door there is no other ventilation and it is pitch dark inside. The length and breadth of the room is 20′×14′. The height is about 9′.

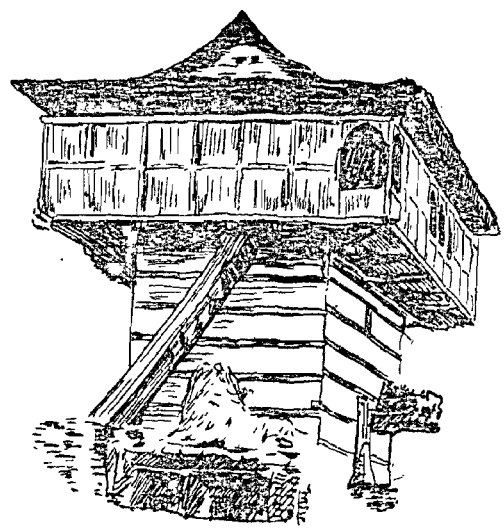
The doors and their frames and the front portions of the wooden super structures have been fashioned by the local *Ores*. In many houses they are decorated with carvings of peculiar designs not exactly geometrical. The carvings represent flowers, animals or imaginary figures which apart from revealing the skill of the craftsmanship of the carpenters, add beauty to the houses.

The ground floor is not inter-connected with the first floor. On the right side of the ground floor, there are wooden stairs which lead to the room on the first floor called *ghunsa pathang*, through *tonkhang tonang* (a wooden narrow verandah). The sizes of the door and room in the first floor are similar to that of the *bong*. During winter *ghunsa pathang* is used both as cooking and living room. The family puts up in this big room with little or no pretensions to privacy. In the centre of the room there is a fire place which is square in shape, and *lodang*, a three legged iron *chullah*, which is portable, is used for cooking. The family sits, around the fire place for warmth. The floor of the *ghunsa pathang* is made of wooden planks. There are two pillars in the room which support the roof of the upper storey. In one of the walls of the *ghunsa pathang* two small rectangular holes called *teenang* are there for light and air, which also serve as outlet for smoke. The narrow verandah outside, which is hardly 3′ in width is used for sitting in the sun.

The upper most storey, the summer residence of the family, is called *thoring pathang* and its structure is different both from the *bong* and the *ghunsa pathang*. It is approached either through wooden stairs from *ghunsa pathang* or direct from outside over the roof of an adjacent store house on level with the ground on the slope above. The door is on the side facing towards east. The front portion, open in the centre to provide air and sunshine, is all a wooden structure of 2″ to 3″ thick planks. On entering the *thoring pathang* on the right side there is a small cabin called *titina pathang* for storing water. *Thoring pathang* is divided into three portions (i) a rectangular big hall called *forting*, (ii) *bizurath* for storing grains and (iii) *guim* where odds and ends and kitchen utensils are kept during summer. But for small *teenangs* which provide little air and light, the *guim* is dark and suffocating. The floor of *forting* is made of local earth. This is rugged and is not as smooth and pleasant as the mud floors of clay in the houses of the lower hills or plains.

There is a flat mud roof on the house, called *khayap* locally. Layers of *bhojpattar* (*shakpang*) and local bushes are spread over thick wooden planks. On this frame is laid a layer of earth, six to eight inches thick to form the roof.

The earth on the roof is compact and properly rammed, laid in graduated processes. First of all, mud which is called *phating* is carefully spread and beaten by small wooden flat clubs called *tekut*. The masons and others press the mud by walking about on the roofs sometimes children are invited to play on the roofs under construction. After the mud layer is smooth and thoroughly pressed water is sprinkled. The beating and pressing process continues till the roof is considered strong enough to hold back the rain and snow. In heavy rains the mud roofs leak. During winter the snow is immediately shoveled down from the roofs as soon as it stops snowing to avoid leakage from the melting snow and roof-collapse under the heavy weight of the accumulated snow. Bath rooms are uncommon. A bath is considered somewhat unnecessary.



PART IV

ANNEXURES

ANNEXURE I

Census of India 1961

INSTRUCTIONS FOR FILLING UP THE HOUSELIST

COLUMN 1—*Line Number.*

Only one digit of the line number has been printed in this column. The line numbers should be continuous for your block. Where the line numbers exceed 9 write the earlier digit(s) yourself.

COLUMN 2—*Building Number (Municipal or Local Authority or Census Number, if any).*

This refers to the entire structure on the ground. There are, however, high, large or long buildings along a street or lane which have been partitioned or portions of which have been sold, which have distinct, separate main exit on the road and which belong to separate owners or occupiers or alternatively there are a series of different houses joined each to each by common walls on either side to make the whole look like one building but parts of which have been built at different times and belong to separate owners. Such distinguishable structures, although not separate from each other, should be regarded as separate buildings and given separate numbers. Each building should have a separate number If in big cities a large mansion or building containing several census houses has a well known name by which it is generally known then the name of the building should also be recorded for convenient reference. If there are more than one structures within an enclosed or open compound belonging to the same person e.g., the main house, the servant's quarters, the garage etc., only one building number should be given. If the locality consists of a number of streets in a village, the buildings in the various streets should be numbered continuously and the streets should be taken in uniform order, from North-West to South-East. Experience suggests that the best way of numbering is to continue with one consecutive serial on one side of the street and complete the numbering on that side before crossing over to the end of the other side of the street and continuing with the serial, stopping finally opposite to where the first numbering began. In a city enumeration block, the numbering will have to respect the axis of the street and not any preconceived geographical direction like North-West. A building under construction should also be given a number in the serial. If a new hut or building is constructed between the time when the house-numbering and house-listing have been completed and the census count it should be given a new number beyond the last number of the serial for the village. Arabic numerals should be used for building numbers.

This will facilitate verification by supervisors. In areas e.g., urban, where the buildings are already numbered by the municipal or other authorities, the enumerator may adopt the existing numbers in the Houselist. In such cases, column 2 will carry the established municipal or local authority number which will facilitate identification. Where there are municipal or local authority numbers but there are reasons to believe that the number is incomplete or unsatisfactory, the municipal or local authority number may still be entered in column 2, but at the same time it will be necessary to serially number the buildings afresh for the purposes of census house-list. In that case, the new census serial for buildings will be entered in column 3 and the new census numbers for the buildings will have to be painted on the buildings themselves. In those cases where there are no municipal or local authority numbers in existence, all buildings will have to be serially numbered for the census and column 2 will contain entries of this census serial. This number will have to be repeated in column 3 with sub-numbers for census houses, if any.

COLUMN 3—*Building Number (Column 2) with sub-numbers for each Census House.*

A census house is a structure or part of a structure inhabited or vacant, or a dwelling, a

shop, a shop-cum-dwelling or a place of business, workshop, school etc., with a separate entrance.

If a building has a number of flats or blocks which have separate entrances of their own and are independent of each other giving on the road or a common staircase or a common courtyard leading to a main gate, they will be considered as separate census houses. If within an enclosed or open compound there are separate buildings then each such building will also be a separate census house. If all the structures within an enclosed compound are together treated as one building then each structure with a separate entrance should be treated as a separate census house.

The order in which census houses within a building should be numbered should be continuous, preferably clockwise, or in any convenient manner if it is at all difficult to do it clockwise. If a building itself is a census house, then it will have only one number, namely, that of the building. If within a building there are a number of census houses, then each census house will have two sets of numbers, e.g., the number of the building and the sub-number of the census house. The census house number should be written after the building number in arabic numerals in brackets such as 2(2), 3(2) etc. A census house may contain more than one household, in which case, each household will have to be denoted by a separate alphabetical sub-number (see instructions for column 11, below).

COLUMN 4—*Purpose for which census house used, e.g., dwelling, shop, shop-cum-dwelling, business, factory, workshop, school or other institution, jail, hostel, hotel, etc.*

The actual use to which a census house is put should be written here.

In the case of a factory or workshop 'Factory' should be written for a large factory if registered under the Indian Factories Act and 'Workshop' for a small unregistered workshop. A workshop is a place where some kind of production, repair or servicing goes on or where goods or articles are made and sold. Similarly, a shop is a place where articles are sold for cash or for credit. Business houses are those where transactions in money or other articles are taking place e.g., bank, etc. But rooms or apartments where professional consultations are held such as by doctors, hakims, pleaders, etc., should be described as 'professional consultation rooms' and not workshops. In the case, however, of a dispensary where, in addition to consultation by a doctor, medicines are prepared and sold, the house should be described as a dispensary. Write also if used for place of worship or congregation or if unoccupied, 'vacant'. If the census house is a shop, business house, bank, etc., but is not a factory or workshop as defined above, the name of the proprietor, manager or director should be entered in column 18.

COLUMNS 5 TO 8—*"If this census house is used as an establishment, workshop or factory".*

These columns apply only in cases where the Census House is a factory or a workshop i.e., where some kind of production, processing, repair or servicing is undertaken or where goods or articles are made and sold. If the census house is not used for purposes of a factory or workshop write 'X' in each of the columns 5 to 8.

COLUMN 5—*Name of establishment or proprietor.*

Write the name of establishment in the case of factories or large manufacturing concerns and write the name of the proprietor in the case of small workshops and establishments like confectioneries where no distinct name has been given to them like *halwai* shop, etc. If the census house is not used for the purpose of a factory or workshop put 'X' in each of the columns 5 to 8.

COLUMN 6—*Name of product (s), repair or servicing undertaken.*

In this column enter the actual work that is being done in the establishment, factory or workshop, like paper making, shoe making, cycle repairing, motor servicing, etc

COLUMN 7—*Average number of persons employed daily last week (including proprietor or household members, if any.)*

The total number of workers including apprentices, either paid or unpaid, employed in the factory or workshop, including the owner or proprietor and any of his family members (if working) should be entered. The average number of persons working per day

during the week preceding the date of your visit should be entered.

In case more than one product is produced it is not necessary to enquire the number of persons employed in the production of each product. It may not be possible to get this information in cases where the operations may be composite.

COLUMN 8—*Kind of fuel or power, if machinery is used.*

If the factory or workshop uses steam or diesel engine or fuel, e.g., kerosene, soft coke, electricity, water-mill, etc., for running the machinery used for production, servicing or repairs, write what fuel or power is actually used.

COLUMNS 9 AND 10—*Description of Census House.*

COLUMN 9—*Material of wall.*

Under this column the material out of which most of the walls of the house are made i.e., grass, leaves, reeds, bamboo, unburnt bricks, mud, burnt bricks, stone, cement concrete or timber should be written. Where a house consists of separate structures each of different materials, the material out of which the walls of the main bedrooms are made are to be recorded.

COLUMN 10—*Material of roof.*

The material out of which most of the outer roof exposed to the weather and not the ceiling is made, i.e., tiles, thatch, corrugated iron, zinc or asbestos cement sheets or concrete etc., should be written. In the case of a multi-storeyed building the intermediate floor or floors will be the roof of the lower floor.

COLUMN 11—*Sub-number of each Census Household with Census House number (Column 3).*

A household is a group of persons who commonly live together and would take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so.

There may be one or more households in a census house. Each household should be separately numbered. This can be done by using the alphabets as (A), (B), (C), etc. For example, if building No. 2 is also a census house and the three households, the household numbers will be 2(A), 2(B) and 2(C). If building No. 4 has two census houses, the houses will be numbered as 4(1) and 4(2). If within each house there are respectively 3 and 2 households, then they will be numbered as 4(1A), 4(1B), 4(1C) and 4(2A) and 4(2B).

COLUMN 12—*Name of Head Household.*

The name of the Head of each household given in Column 11 should be written here. The Head of a household, for census purposes, is the person on whom falls the chief responsibility for the maintenance of the household. The name of the person who is actually acknowledged as Head of the household should be recorded. In the case of places like messes, boarding houses, chummeries, etc., where people live together with no ties of relationship, the manager or superintendent or the person who by common consent is regarded as the Head should be recorded as Head of the household.

If the census house is used as a sitting place, cattle shed, etc., write the use to which it is put (and add the name of the owner).

COLUMN 13—*Number of rooms in Census Household*

If a census house is occupied by one household the enumeration of rooms should be simple.

If a census house consists of a number of households the number of rooms occupied by each household should be entered on each line against the name of the Head of the Household. In cases where more than one household occupy a single room or share more than one room in such a way that it is not possible to say the number of rooms occupied by each household, the number of rooms should be given together within brackets as common to both the households.

A room should usually have four walls with a doorway with a roof overhead and should be wide and long enough for a person to sleep in, i.e., it should be at least 6 ft. long. Unenclosed verandah, kitchen, store, garage, cattle shed and latrine which are not ordinarily used for living and sleeping should not be treated as rooms. An enclosed room, however, which is used for living, dining, storing and cooking should be regarded as a room.

COLUMN 14—*Does the household live in own or rented house?*

If the household lives in own house write 'O'. If the household lives in a rented house write 'R'.

In the case of public buildings like schools, hospitals, etc., or places of worship, put 'X' in this column.

COLUMNS 15 TO 17—*Number of persons residing in census household on day of visit.*

Write the number of males residing in the household in column 15, the number of females residing in the household in column 16 and the total number of persons in column 17.

COLUMN 18—*Remarks.*

In this column should be entered any useful or significant information about the building or the census house or the census household that has not been entered in any other column. For example, if the census house is a shop, the name of the proprietor or owner should be recorded in this column. If a census house is vacant at the time of houselisting but there is reason to believe that the house will be occupied in the course of the next few days and almost certainly before the census enumeration period, then the word 'vacant' should be entered in column 4 and a remark should be entered in column 18 to the effect 'likely to be occupied shortly'. Thus, the Remarks column should be utilised for recording all significant information relating to the building or census house or census household.

Each person engaged in housenumbering of one block will have to make out an abstract at the conclusion of houselisting and housenumbering. This abstract will be in the form shown below:—

HOUSELIST ABSTRACT

Name and number of District.....

Name and number of Tehsil, etc.....

Name and number of Village/Ward/Enumerator's Block, etc.....

Total number of sheets used .....

Census Household Numbers From.....To .....

Total number of Census Households .....

Number of establishments, workshops or factories	Total number of rooms in all households	Number of persons residing in households		
		Males	Females	Total

Dated Signature of Supervisor

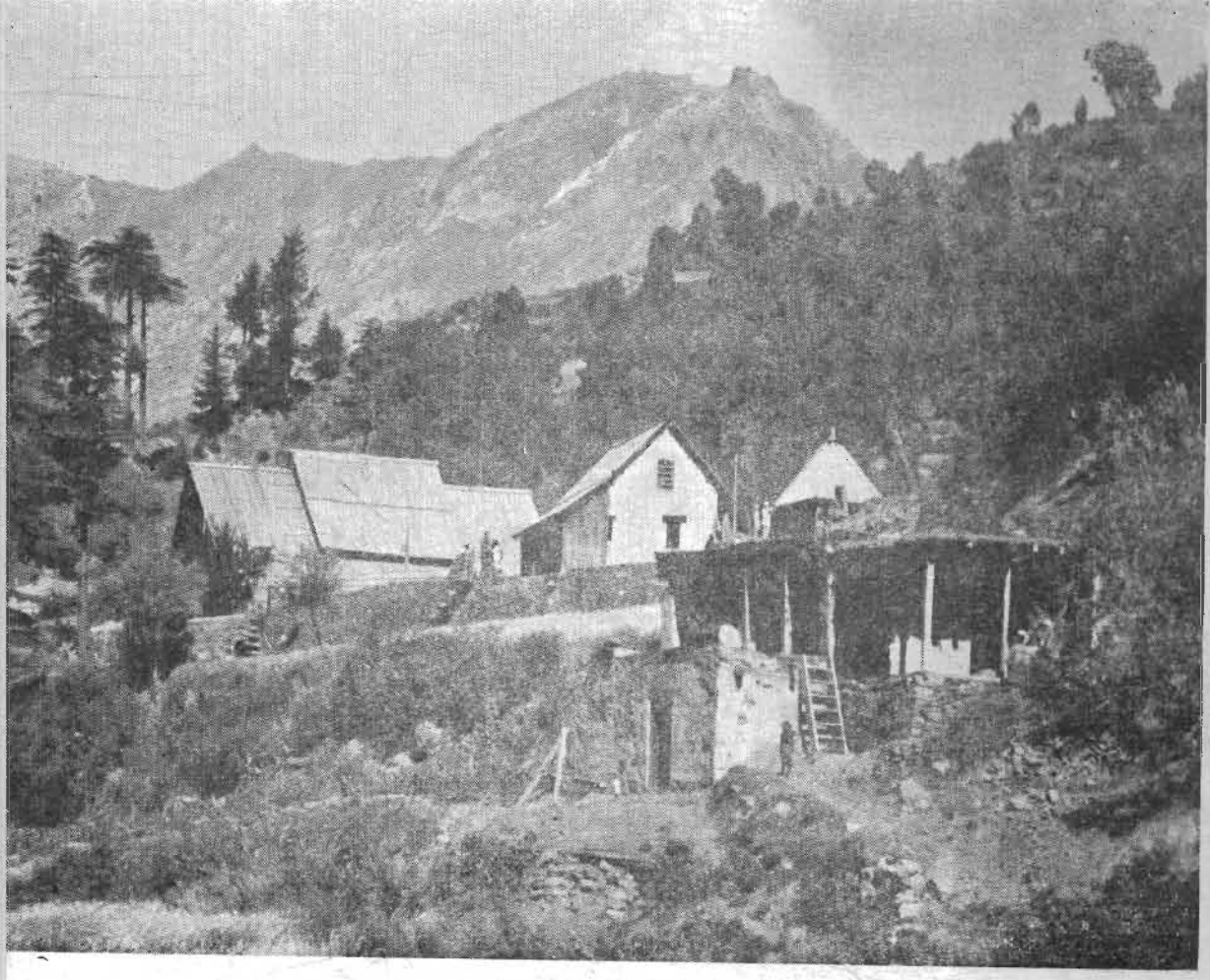
Dated Signature of Enumerator

CHAMBA DISTRICT

HOUSE TYPES AND VILLAGE PATTERNS

CLUSTER OF HOUSES — Devi Kothi—Chaurah Tehsil



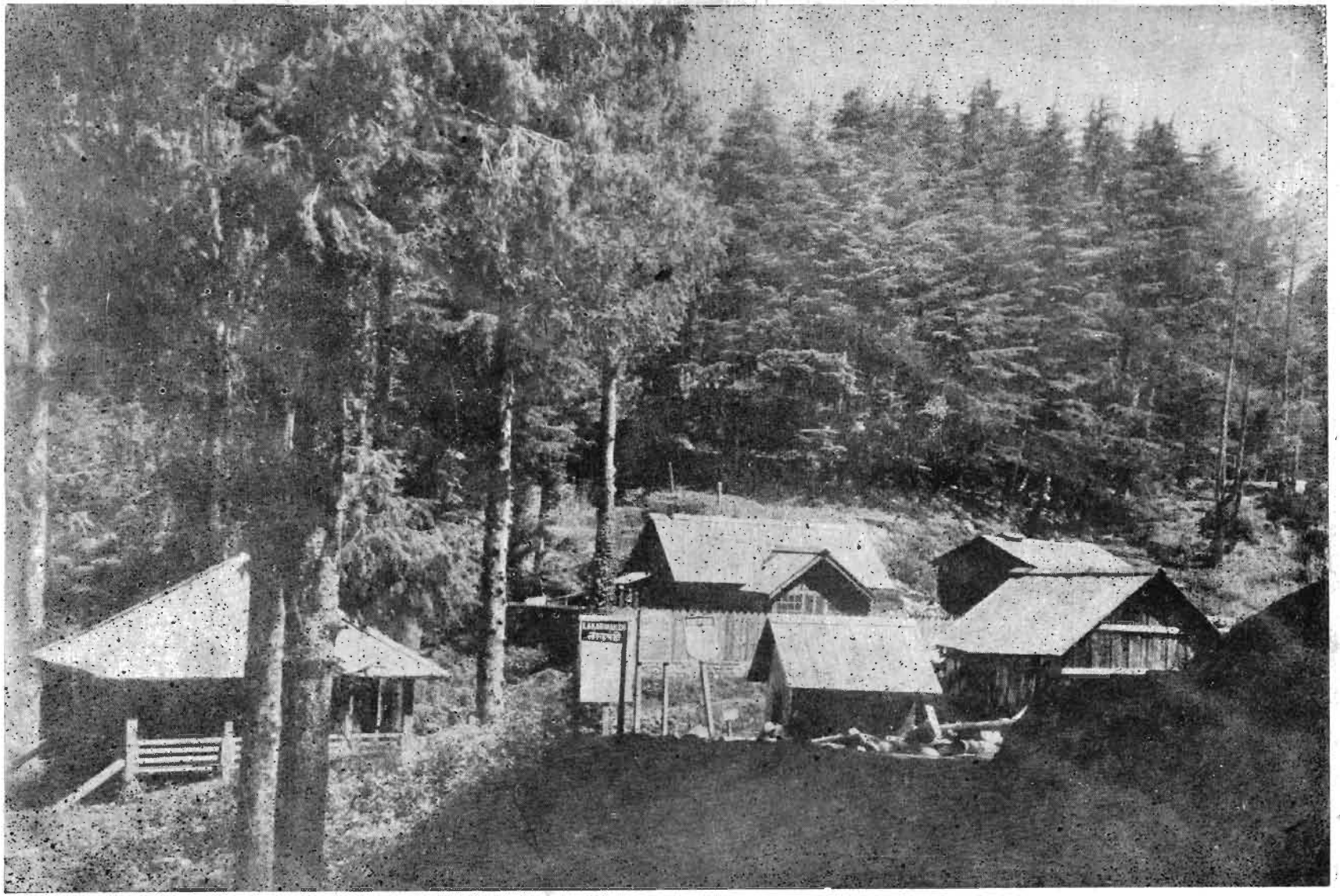


NEW KILAR coming up

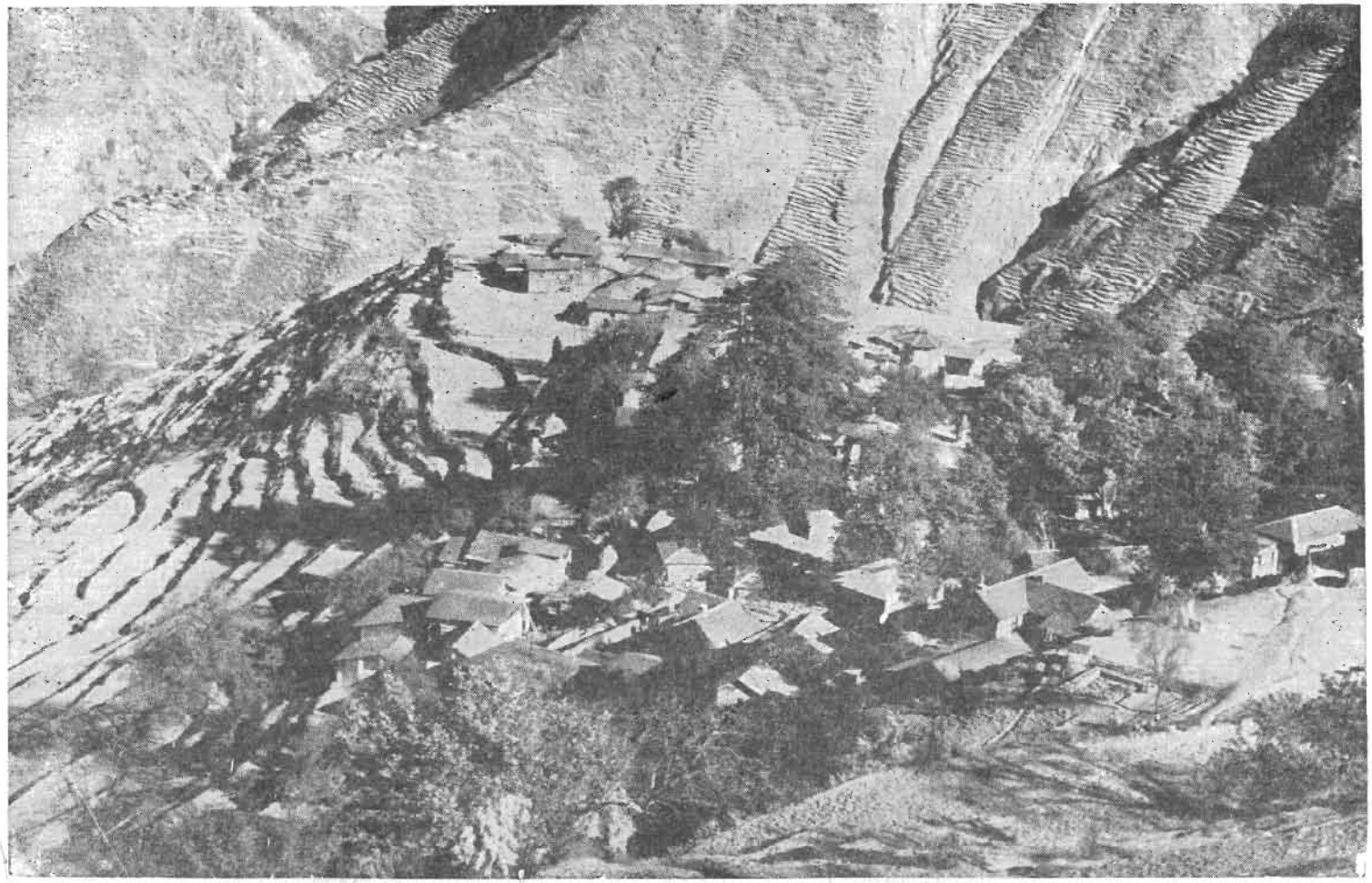


MALUNDI'S HUT

Courtesy—
W. H. Newell



LAKKAR MANDI—Bhattiyat Tehsil



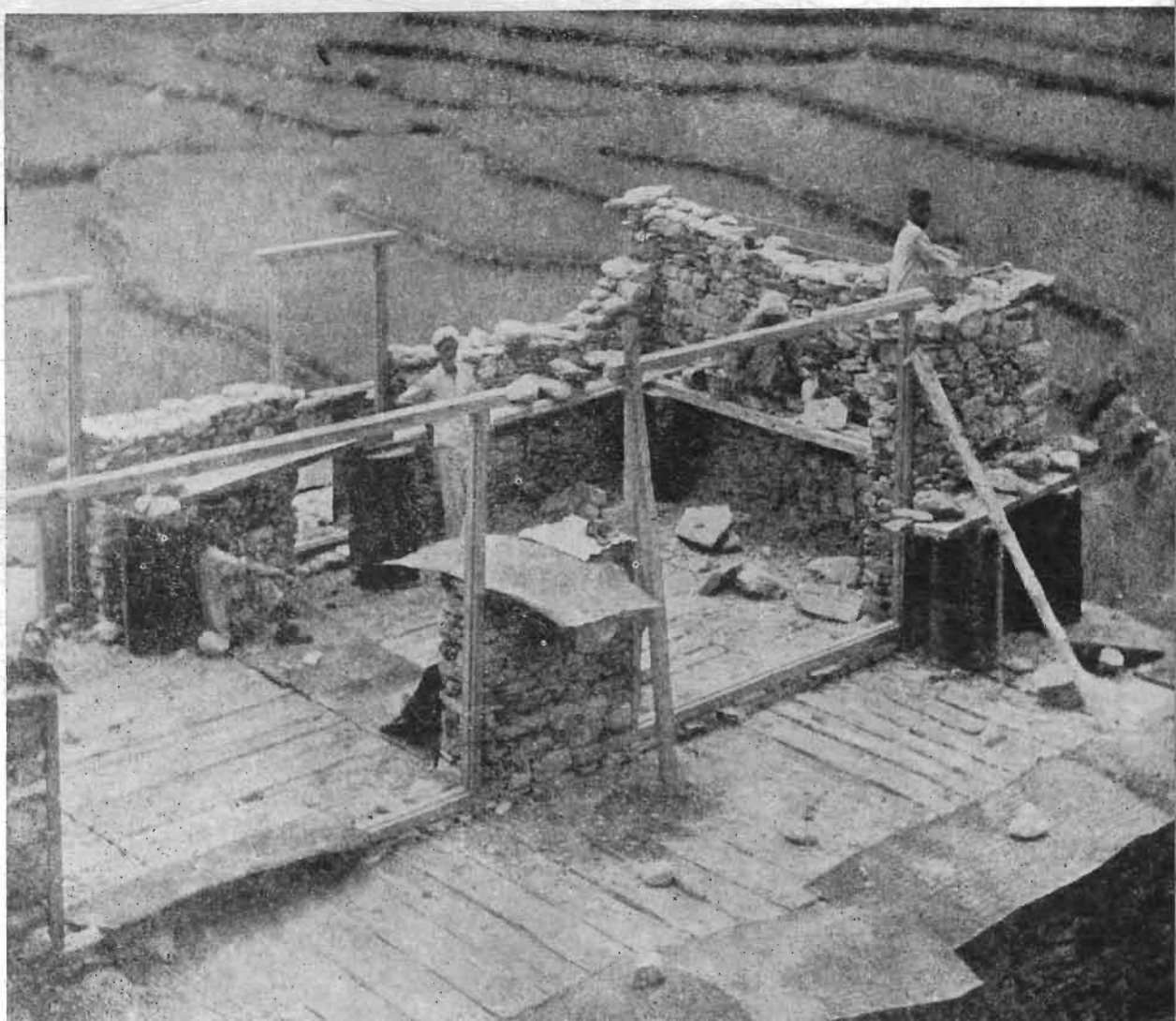
BRAHMAUR

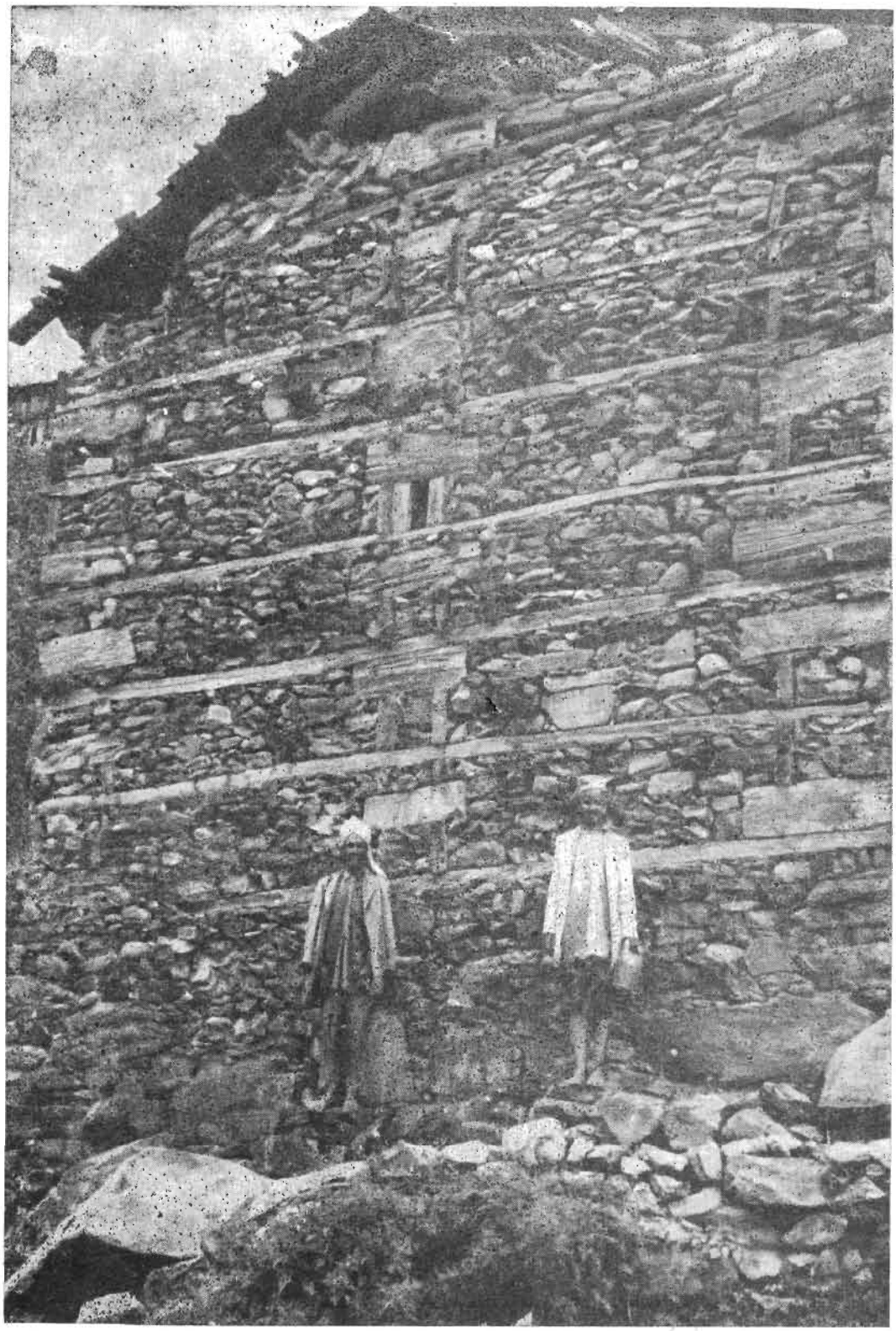
Courtesy—Balkrishan, Times of India



A
GUJJAR HUT
Maingal
Chamba Tehsil

NEW HOUSE UNDER CONSTRUCTION—Bathri

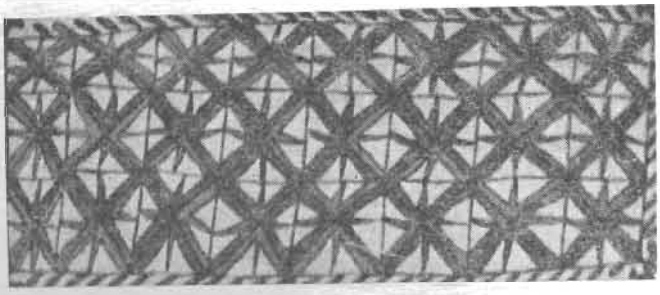




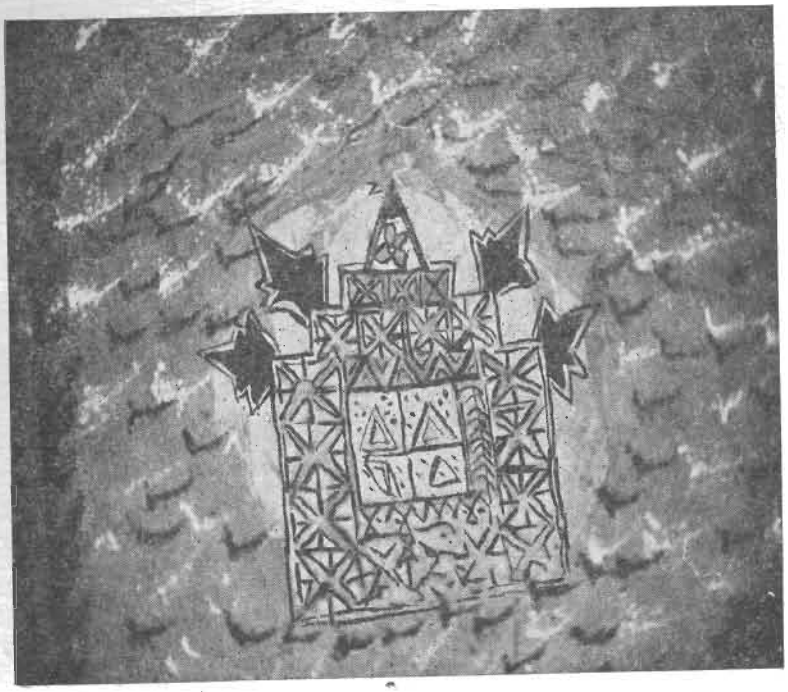
Structure of **AN OLD HOUSE** near Brahmaur

Courtesy—W. H. Newell

MANDI DISTRICT



WALL PAINTING



KANDEO



PANJAIN—Chichot Tehsil

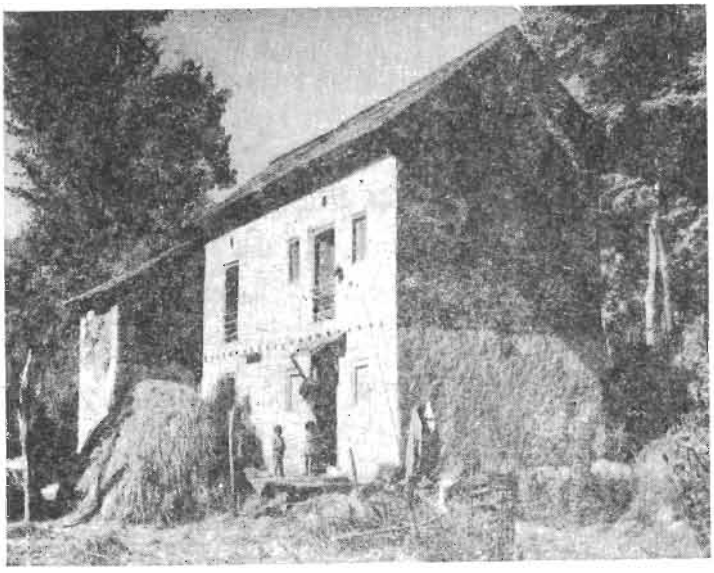
KOT—Sarkaghat Tehsil





THALAUT—
Mandi Sadar Tehsil

A HOUSE near Jogindarnagar





ROOF LAYING near Sarkaghat

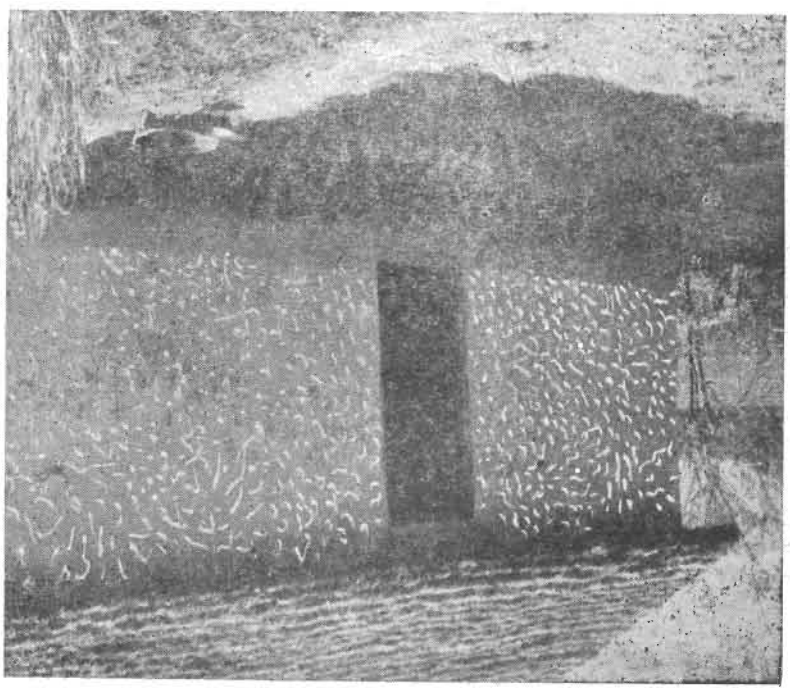
"MATKANDA" Wall under construction at Mahadev Mandi Sadar Tehsil





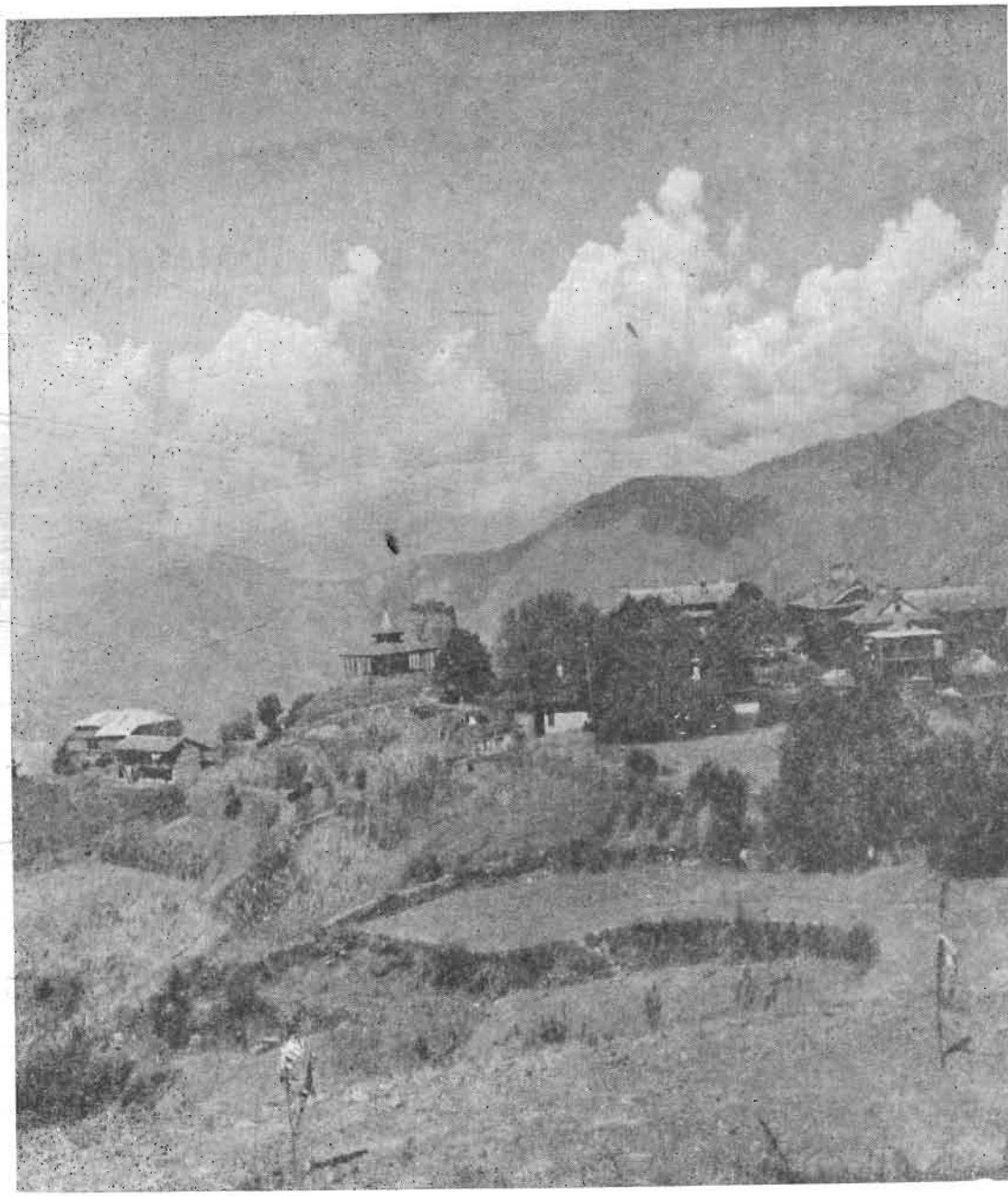
A TYPICAL HOUSE
Panjain, Chichot Tehsil

—Jag Mohan



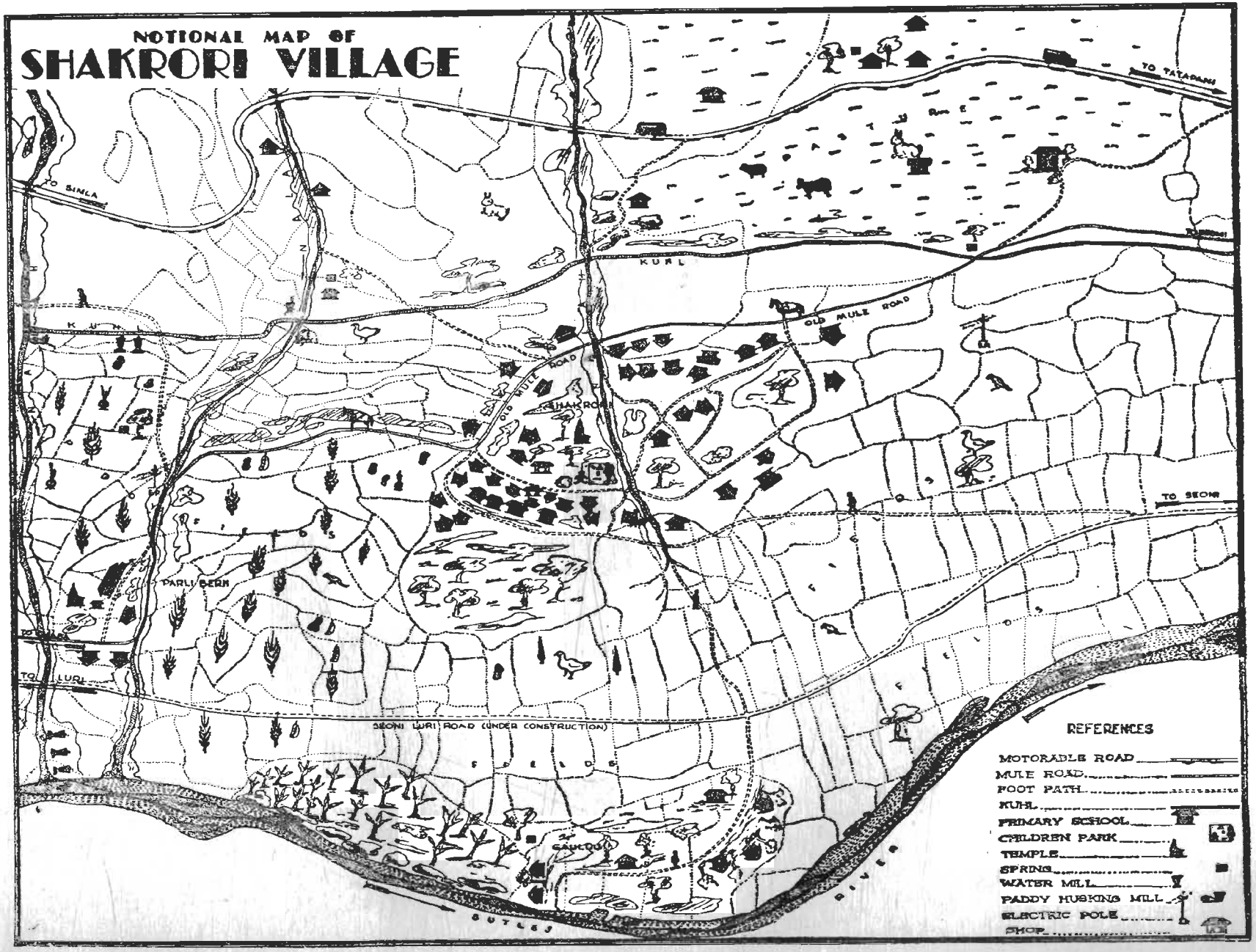
"CHHITTA" Wall decoration
in Balh—Mandi Sadar Tehsil

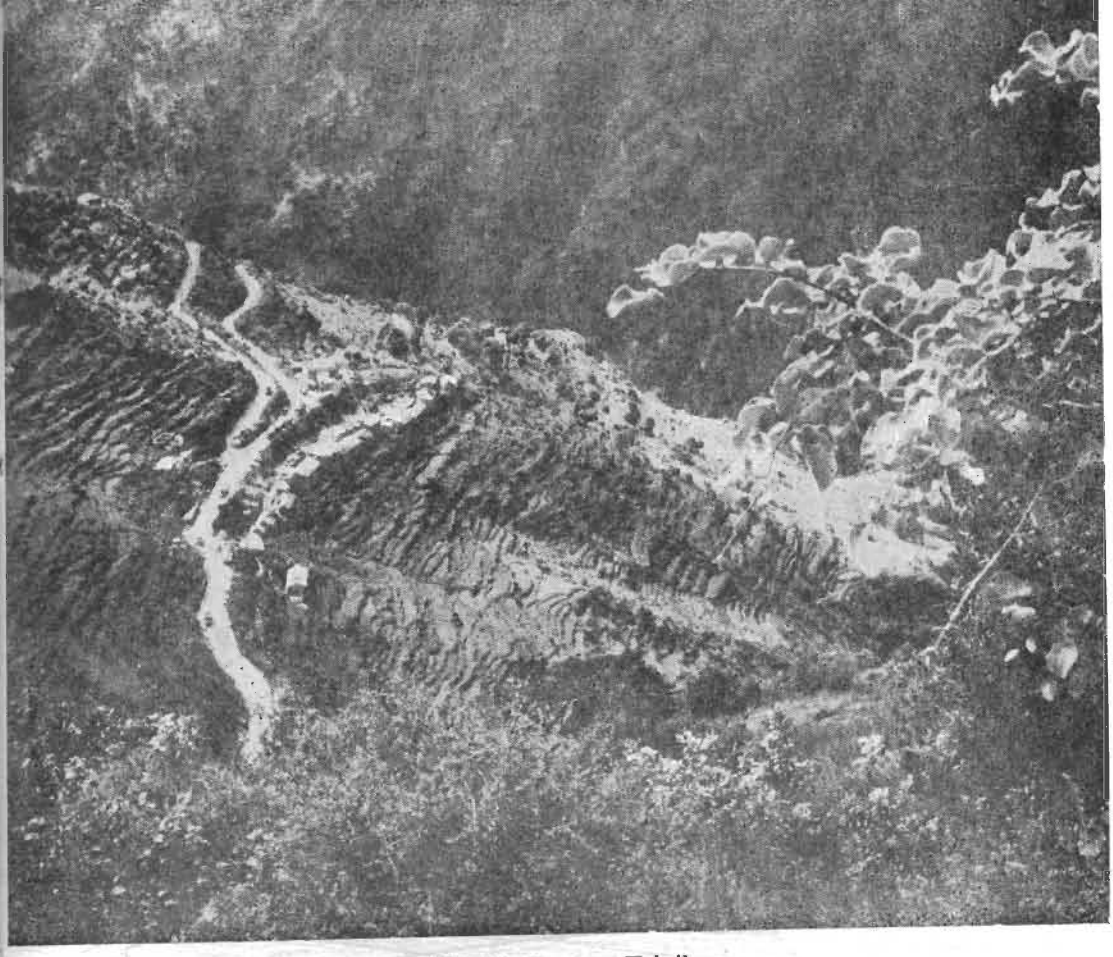
MAHASU DISTRICT



BAROBAG—Kotgarh

Courtesy—V. S. Nanda, Editor 'The Span'


NOTIONAL MAP OF
SHAKRORI VILLAGE
TO TATAPANI
TO SINLA
KUHL
OLD MULE ROAD
SHAKRORI
TO SEONI
PARLI BERA
TO
TO LURI
SEONI LURI ROAD (UNDER CONSTRUCTION)
FIELDS
SAULDU
SUTLEJ RIVER
REFERENCES
MOTORABLE ROAD
MULE ROAD
FOOT PATH
KUHL
PRIMARY SCHOOL
CHILDREN PARK
TEMPLE
SPRING
WATER MILL
PADDY HUSKING MILL
ELECTRIC POLE
SHOP



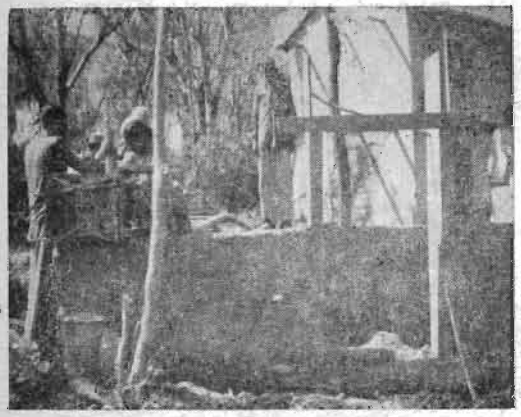
JEWRI—Rampur Tehsil

GIJARI—Theog Tehsil

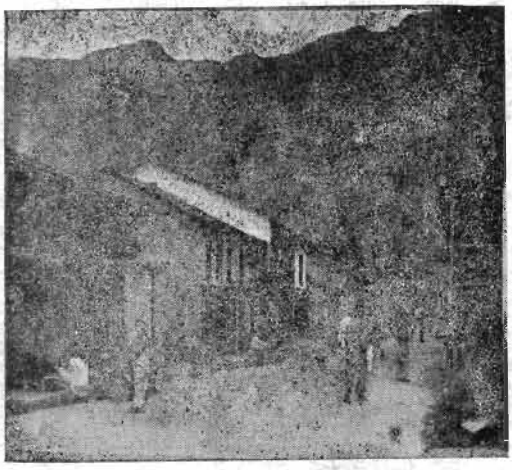




DEORA—Jubbal



CONSTRUCTION OF
"MATKANDA" WALL—
Shakrori, Seoni Sub Tehsil



HOUSE AND CATTLESHED
Shakrori, Seoni Sub Tehsil

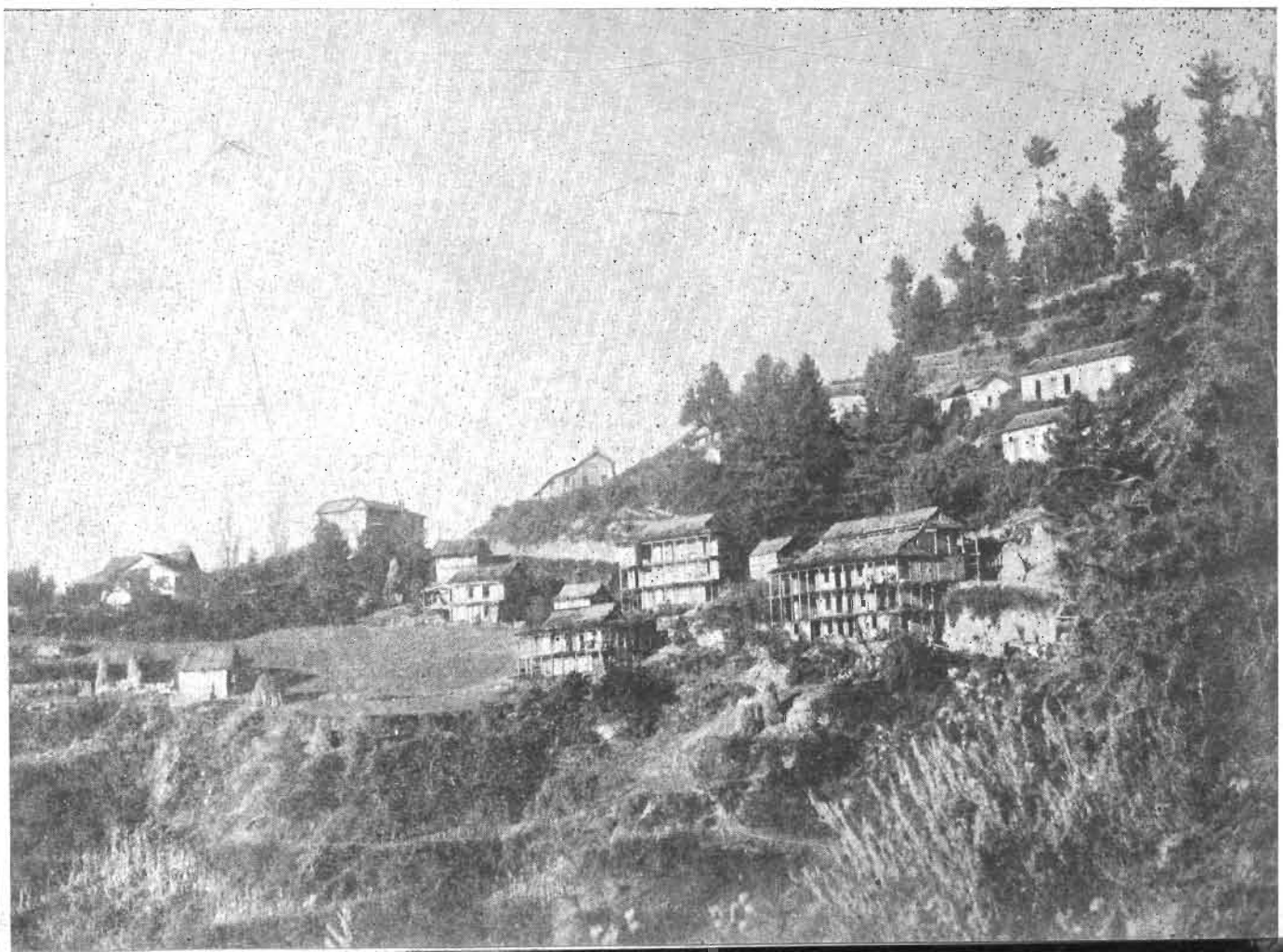
KIARI—Kotkhai Tehsil





BER—A village near Solan

CHAUPAL



SIRMUR DISTRICT



A PEASANT'S HOUSE—
Rajana, Rainka Tehsil



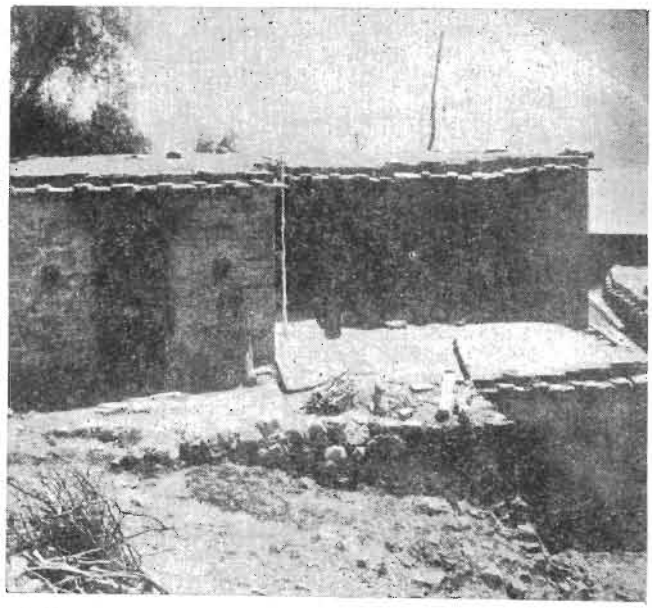
A HOUSE WITH THATCHED ROOF—Moginand, Nahan Tehsil

—M. L. Gupta



A THATCHED HUT—
Paonta Tehsil

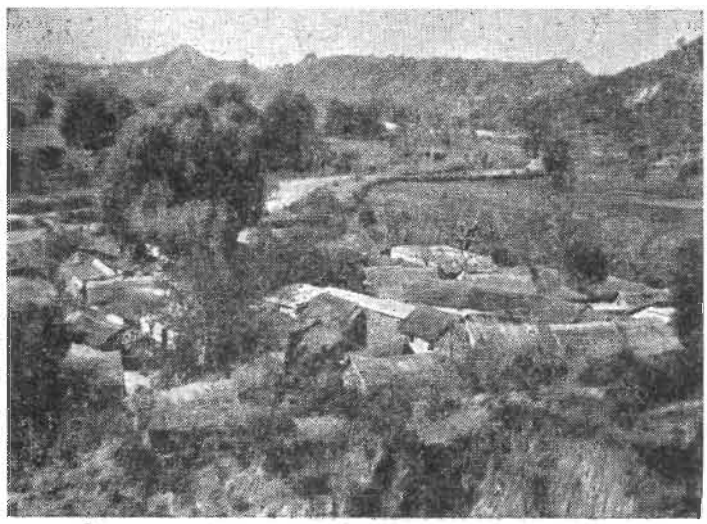
—C. L. Sharma



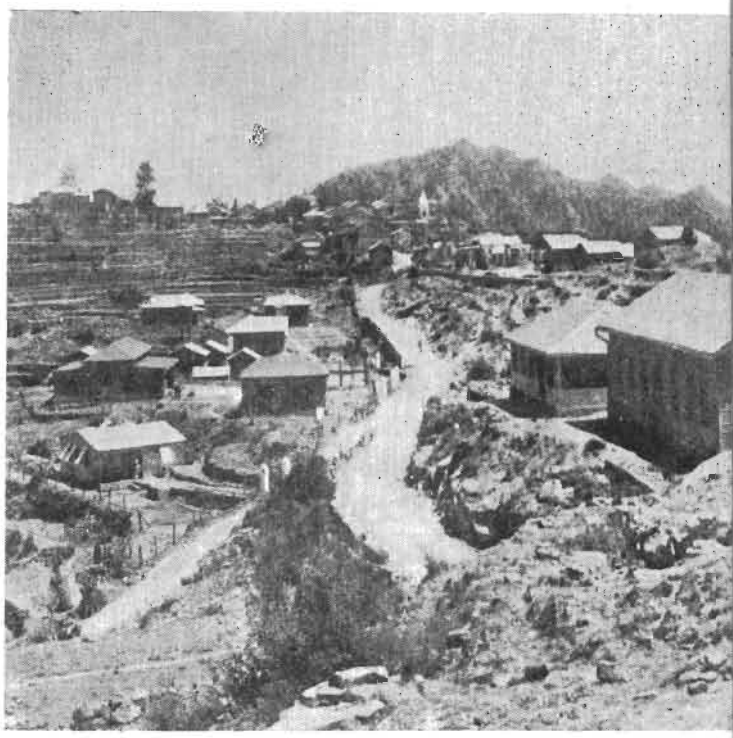
A PEASANT'S HOUSE—Sarahan, Pachhad Tehsil



WORKSHOP-CUM-DWELLING—(Silver Smith at work) Nahan

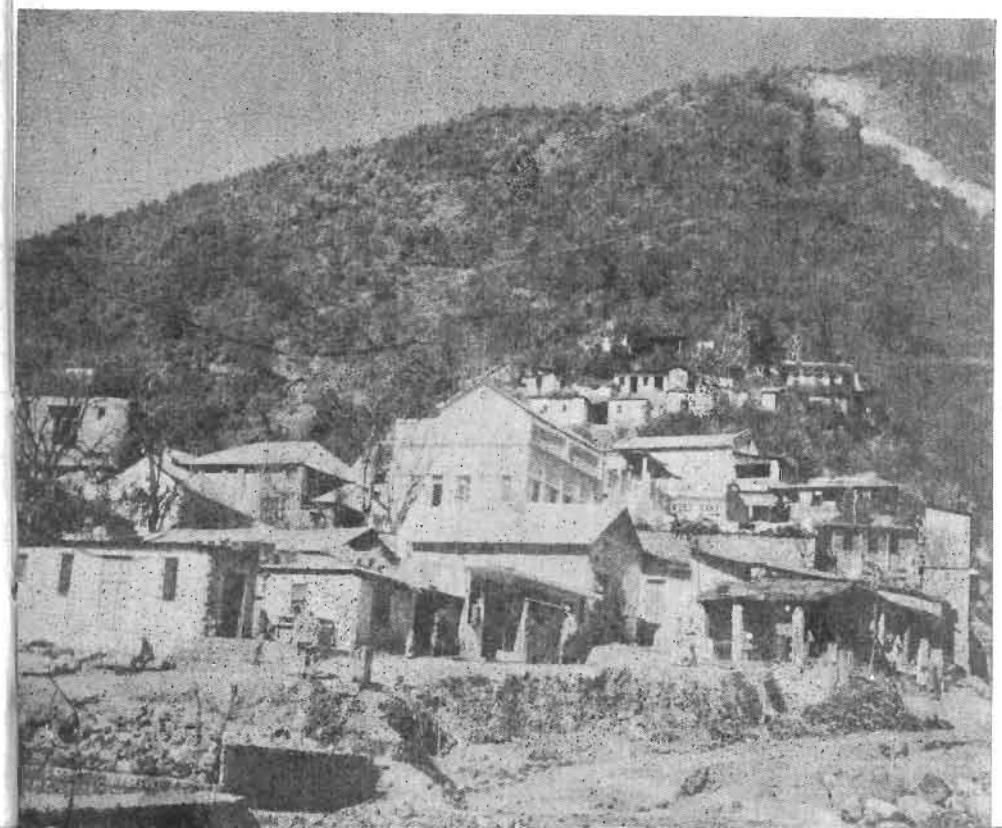


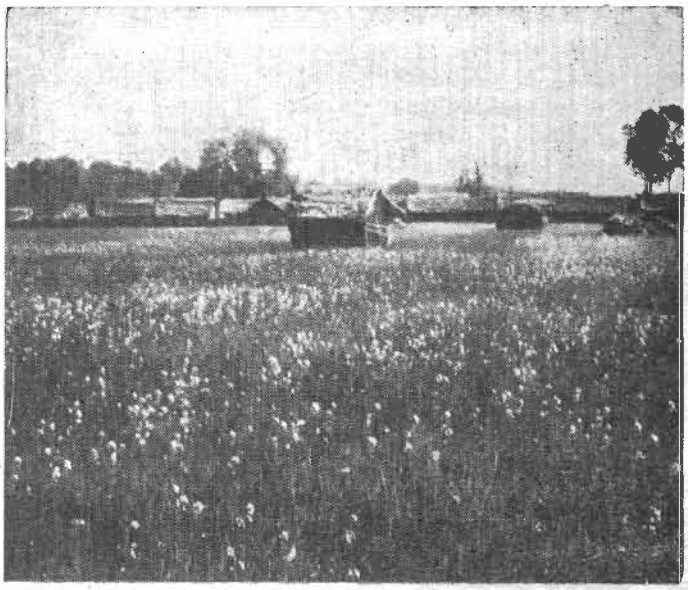
MOGINAND—Nahan Tehsil



SARAHAN—Pachhad Tehsil

DADAHU—Rainka Tehsil

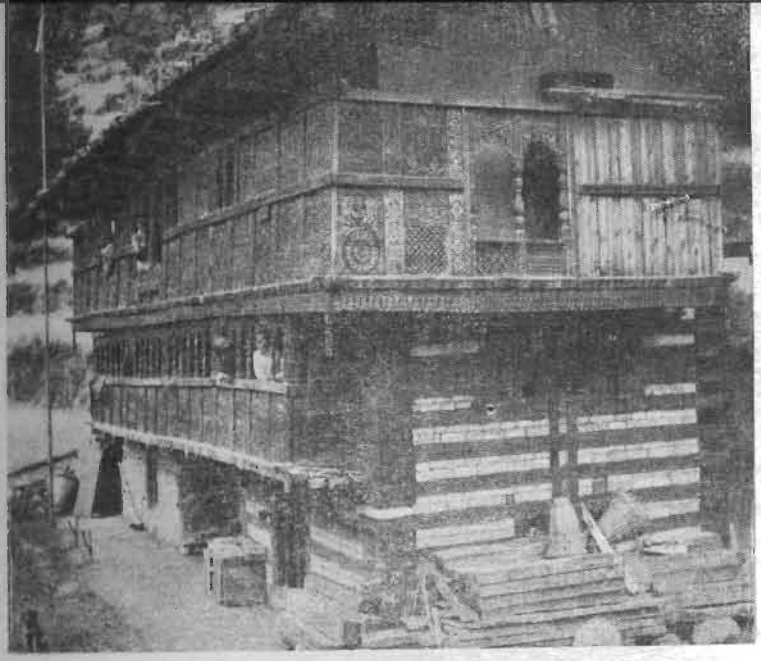




KOLAR—Paonta Tehsil



KAMRAO—Paonta Tehsil



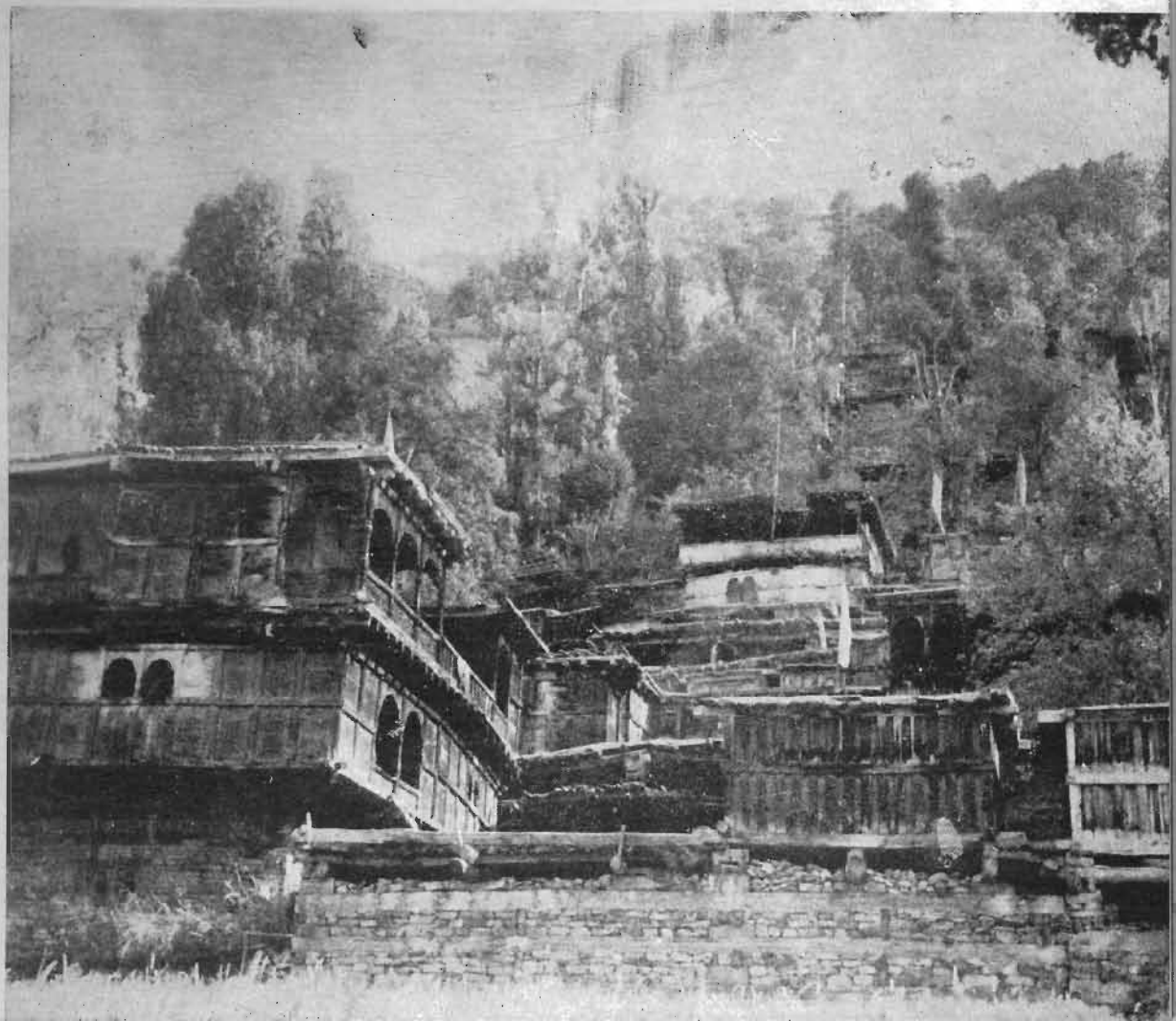
KINNAUR DISTRICT

A PROFUSION OF DECORATION AND WOOL CARVING—Nachar Sub-Division

Courtesy—Nalini Jayal

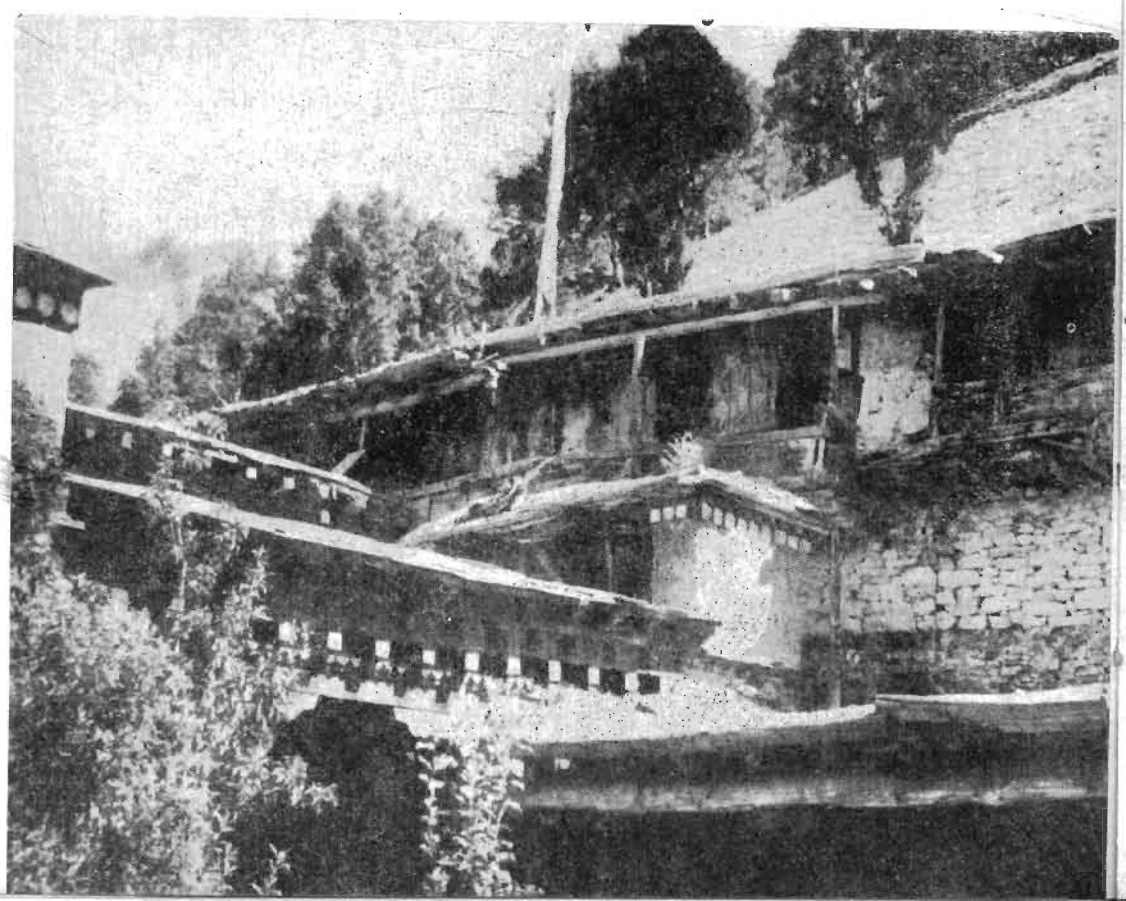
CLUSTER OF HOUSES AND KOTHARS—Kalpa

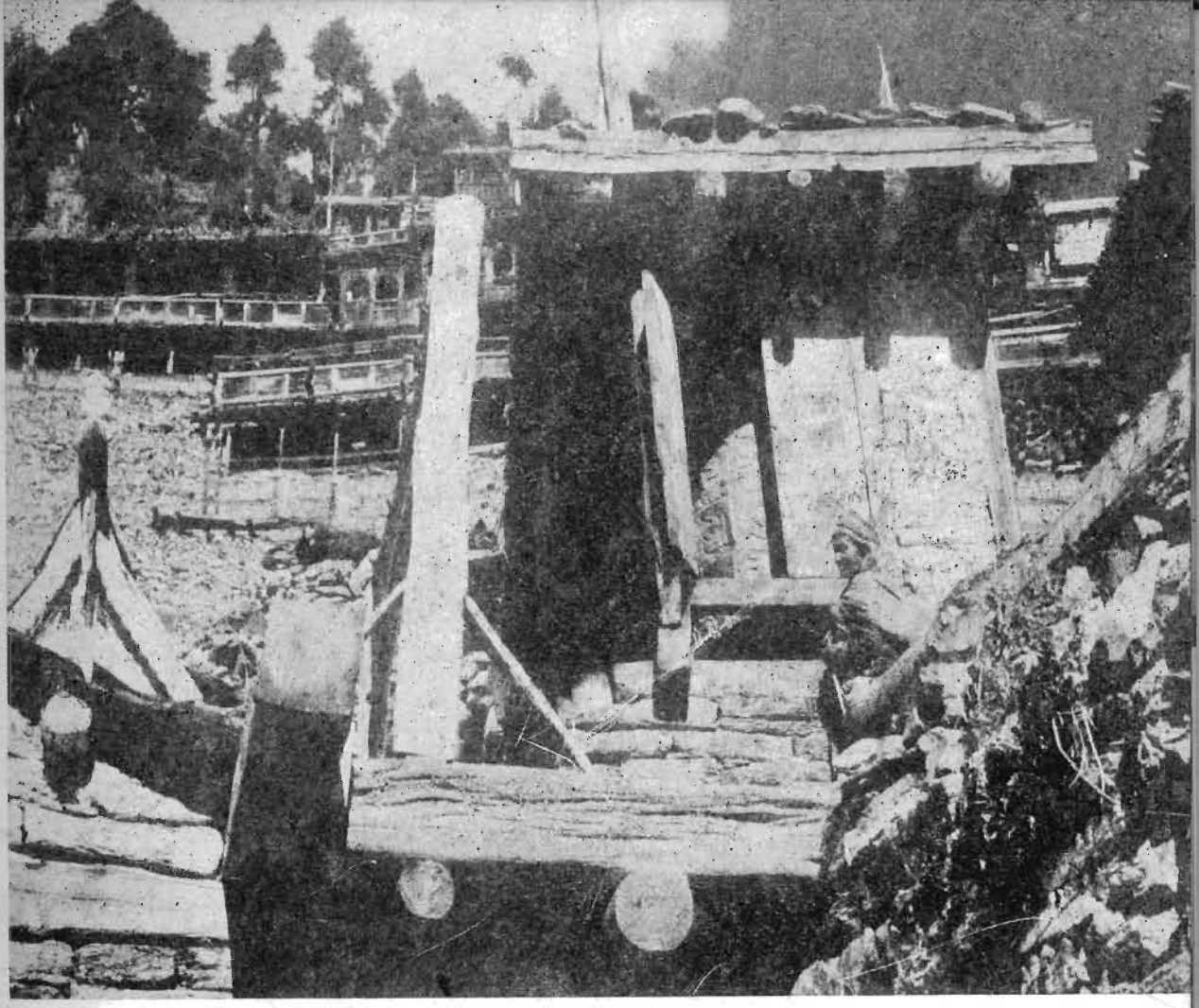
Courtesy—Anthropological Survey of India



YAK HAIR "For Luck" on the roof tops

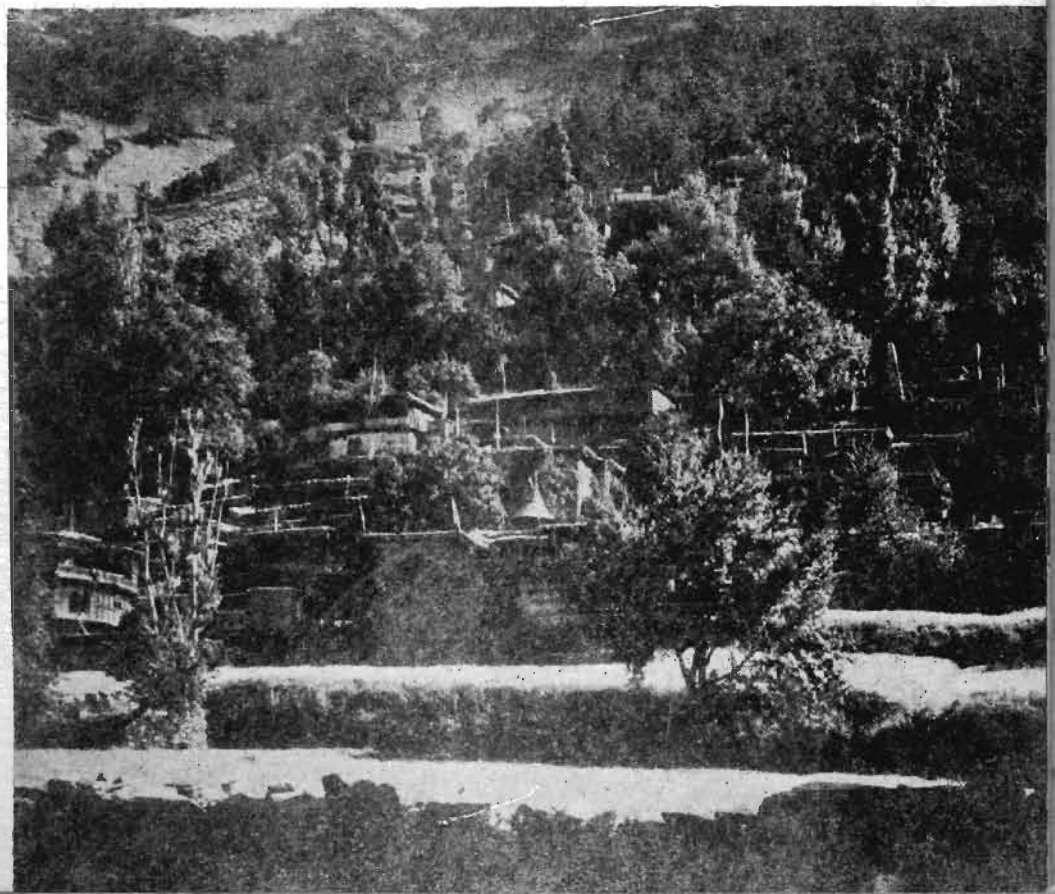
A MONASTERY IN KANUM





HOUSES in Labrang—Poo Sub-Division

Courtesy—Anthropological Survey of India



ANOTHER CLUSTER OF HOUSES—Kanum

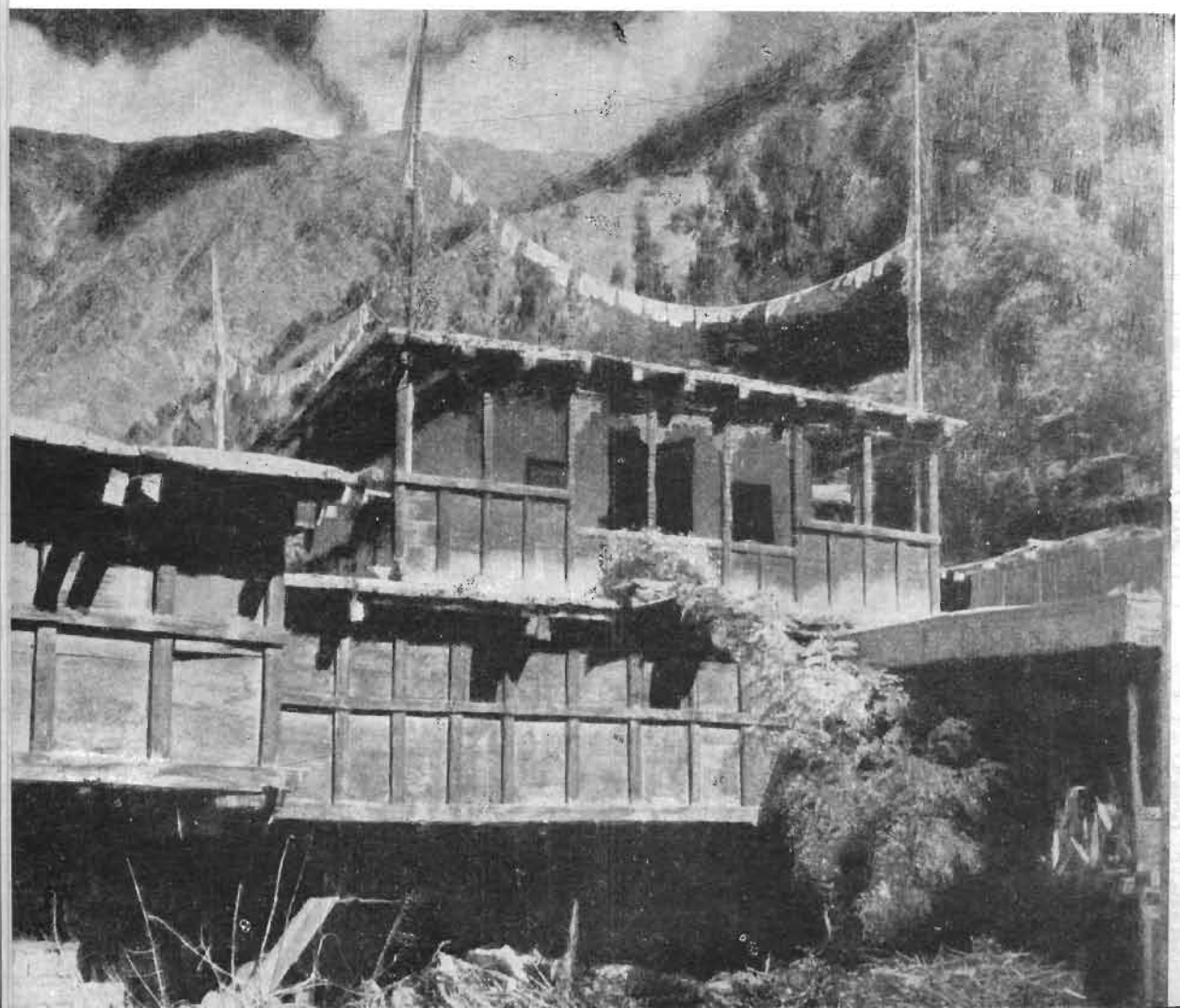


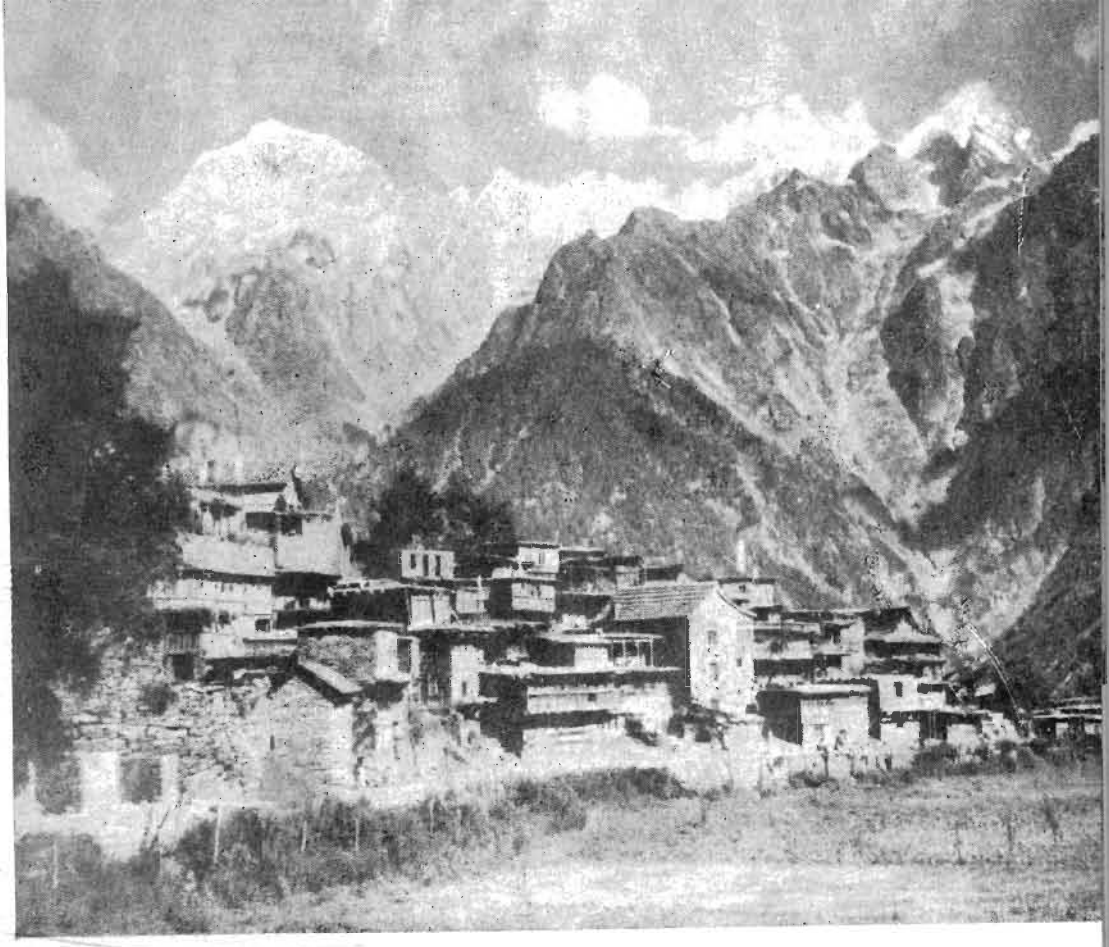
Artist's impression of KALPA

Courtesy—B. C. Gue

HOUSES adorned with flags and buntings—Kalpa

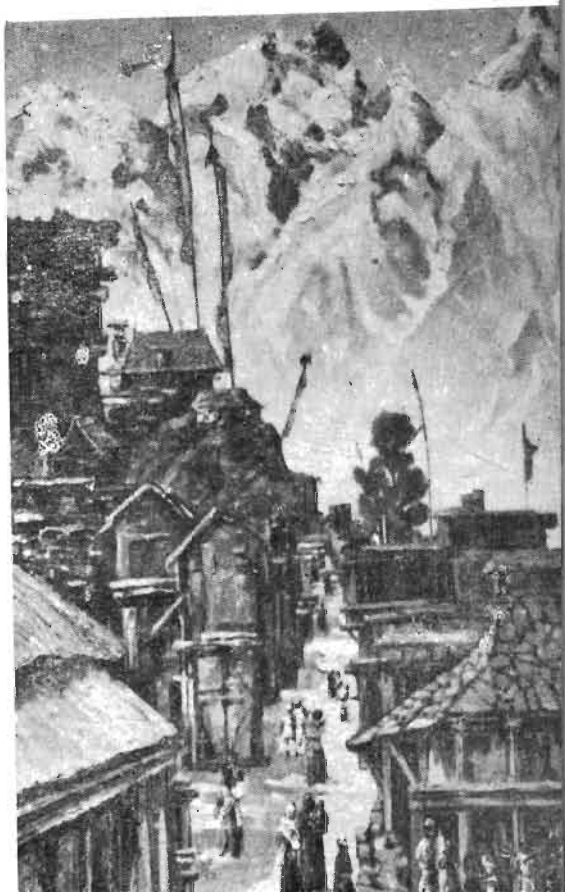
Courtesy—Anthropological Survey of India





KALPA

Courtesy—B. C. Gue

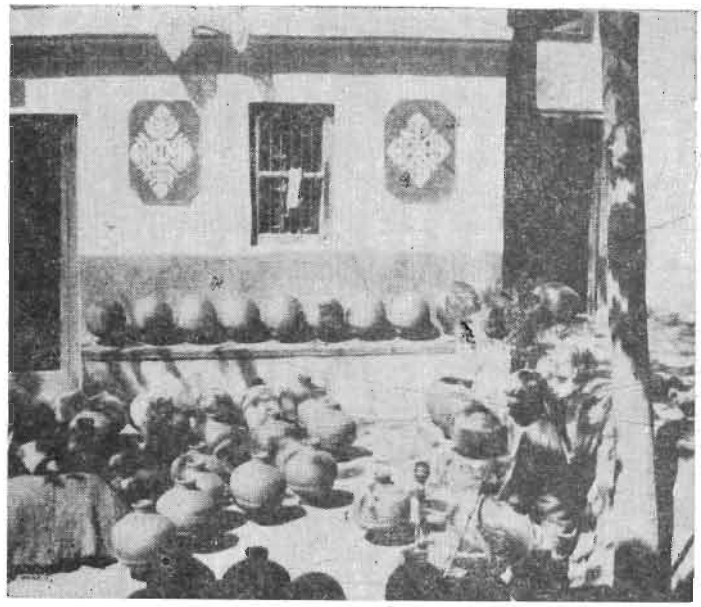


Artist's impression of **KALPA**

Courtesy—B. C. Gue



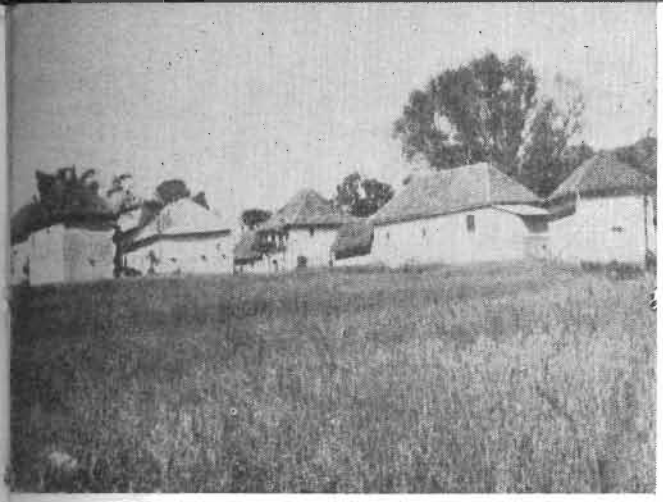
SHOP-CUM-DWELLING—
Ghamarwin



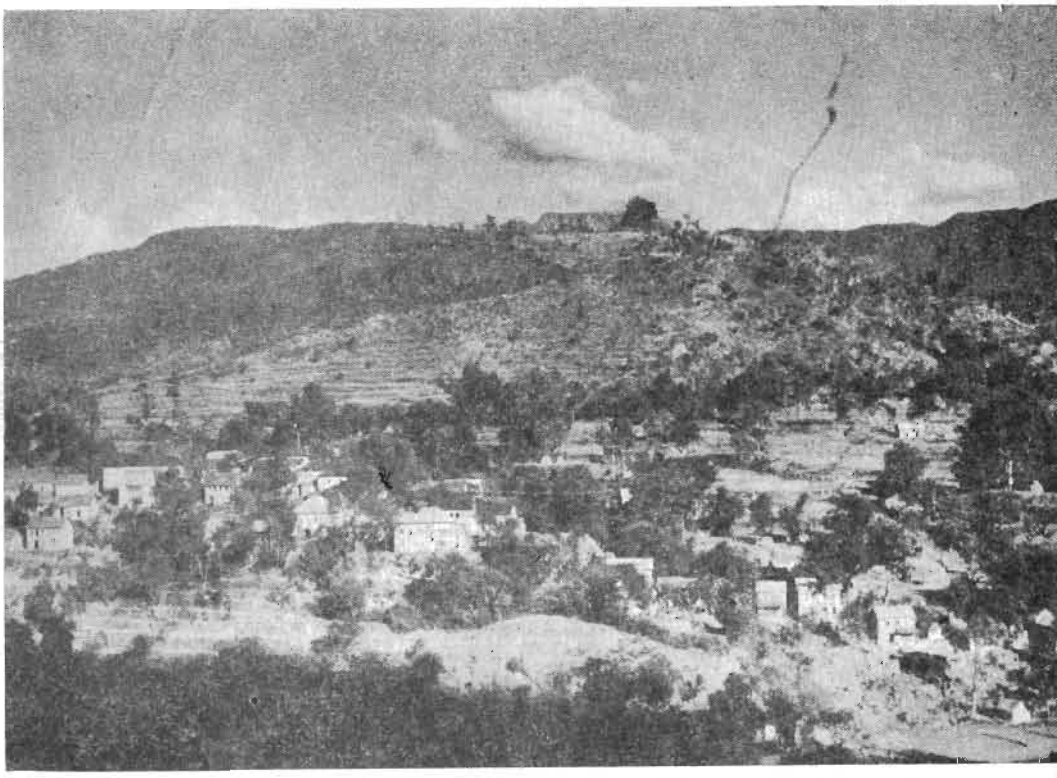
POTTER'S
WORKSHOP-CUM-
DWELLING—
Ghamarwin Tehsil



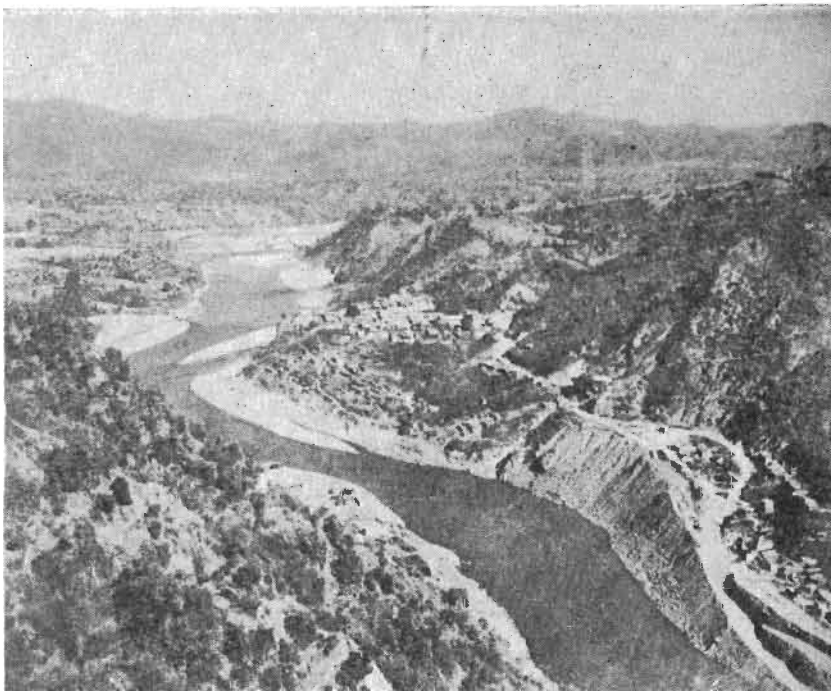
A PEASANT'S HOUSE—Bilaspur
Sadar Tehsil



DARI—Ghamarwin Tehsil



DEOLI—Bilaspur
Sadar Tehsil



BHAKRA VILLAGE now submerged
in Govind Sagar

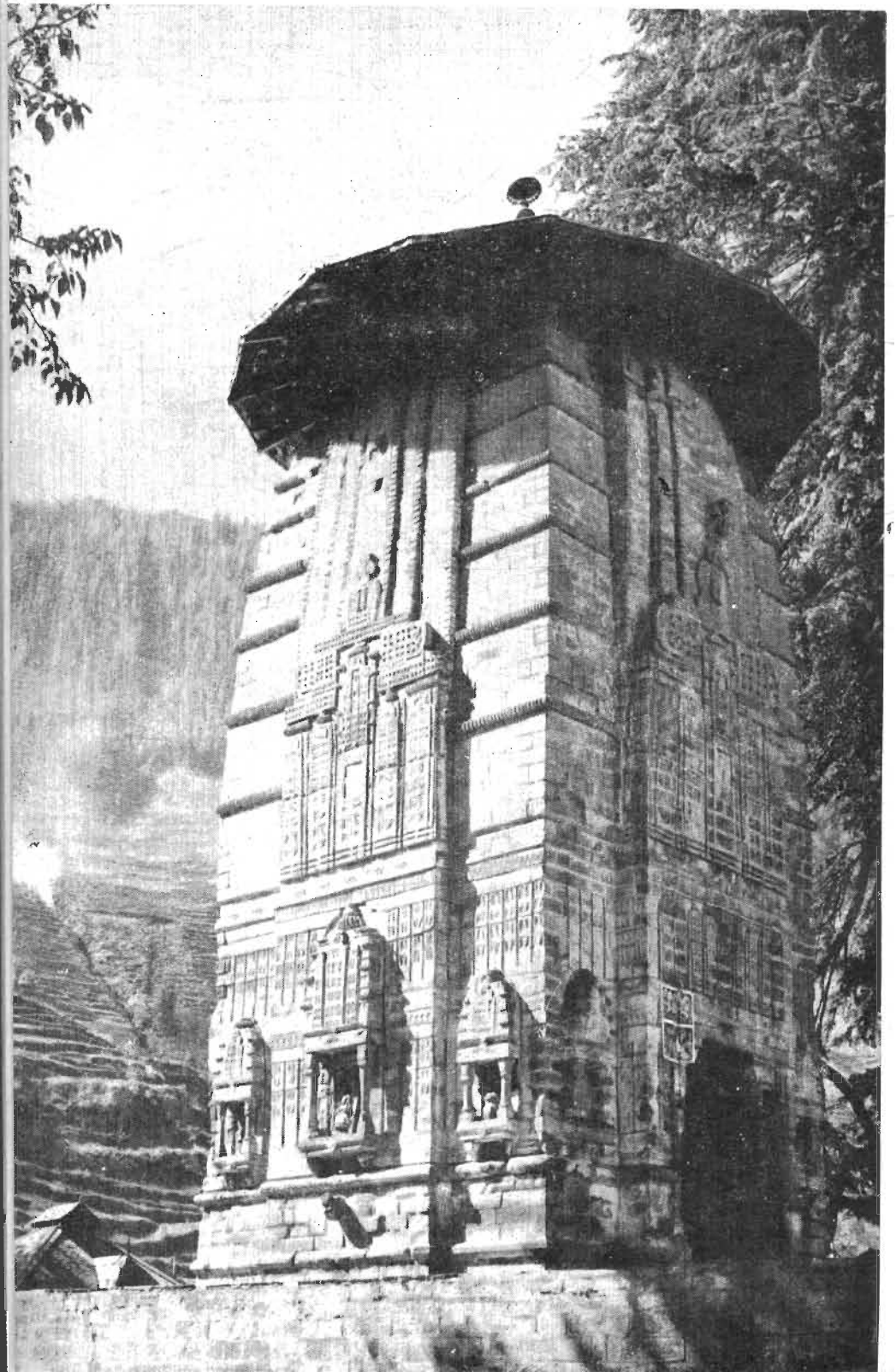
Courtesy—R. S. Mathur

Decorations

Monuments

Murals Towns



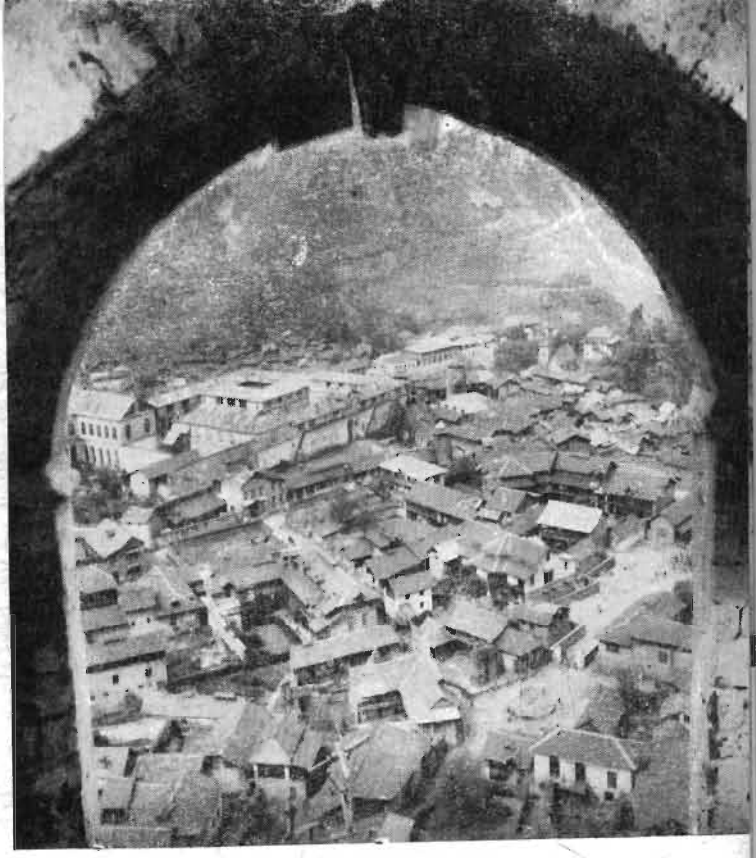




HARIHAR TEMPLE
at Brahmaur

Courtesy—Balkishan,
Times of India

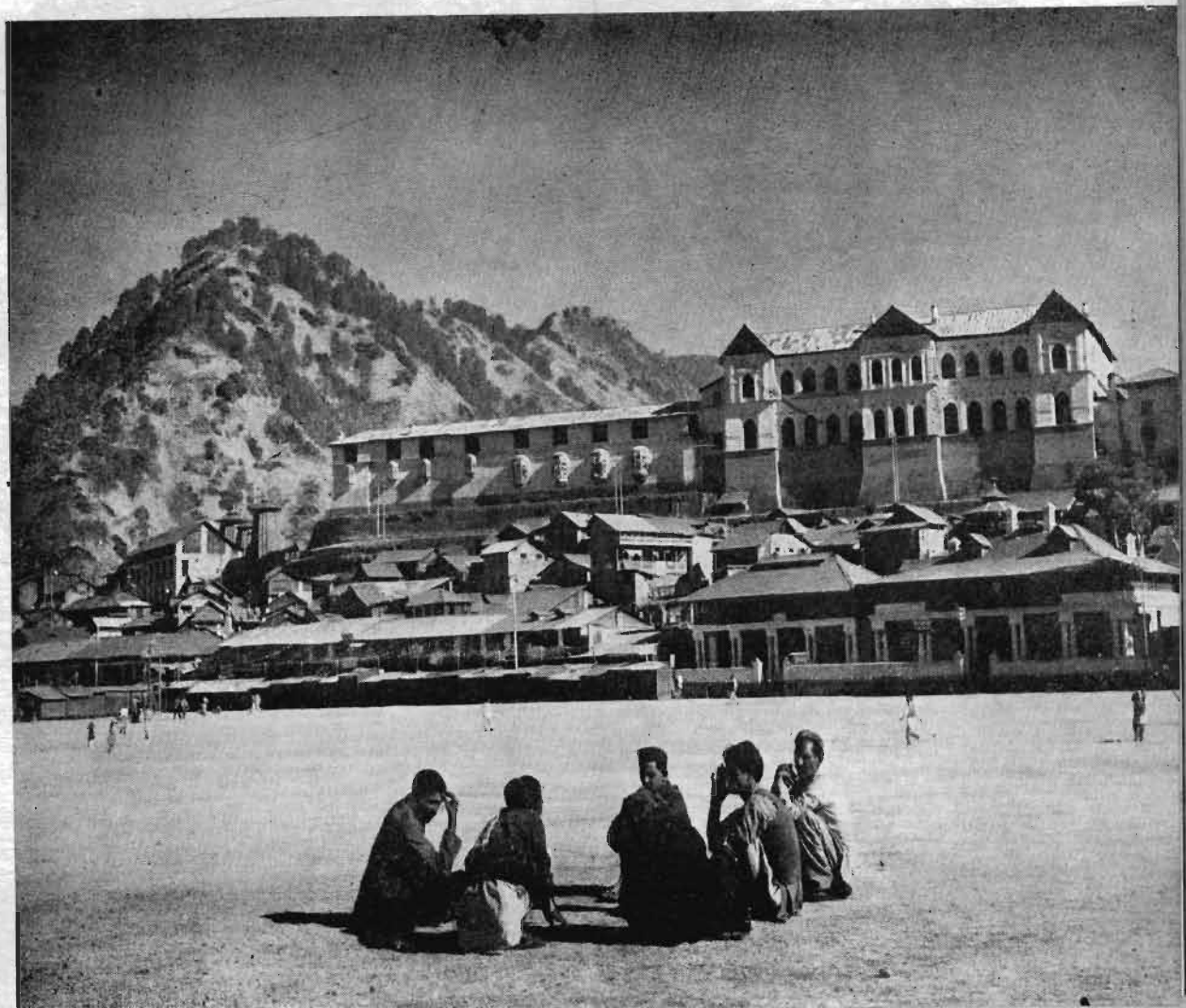


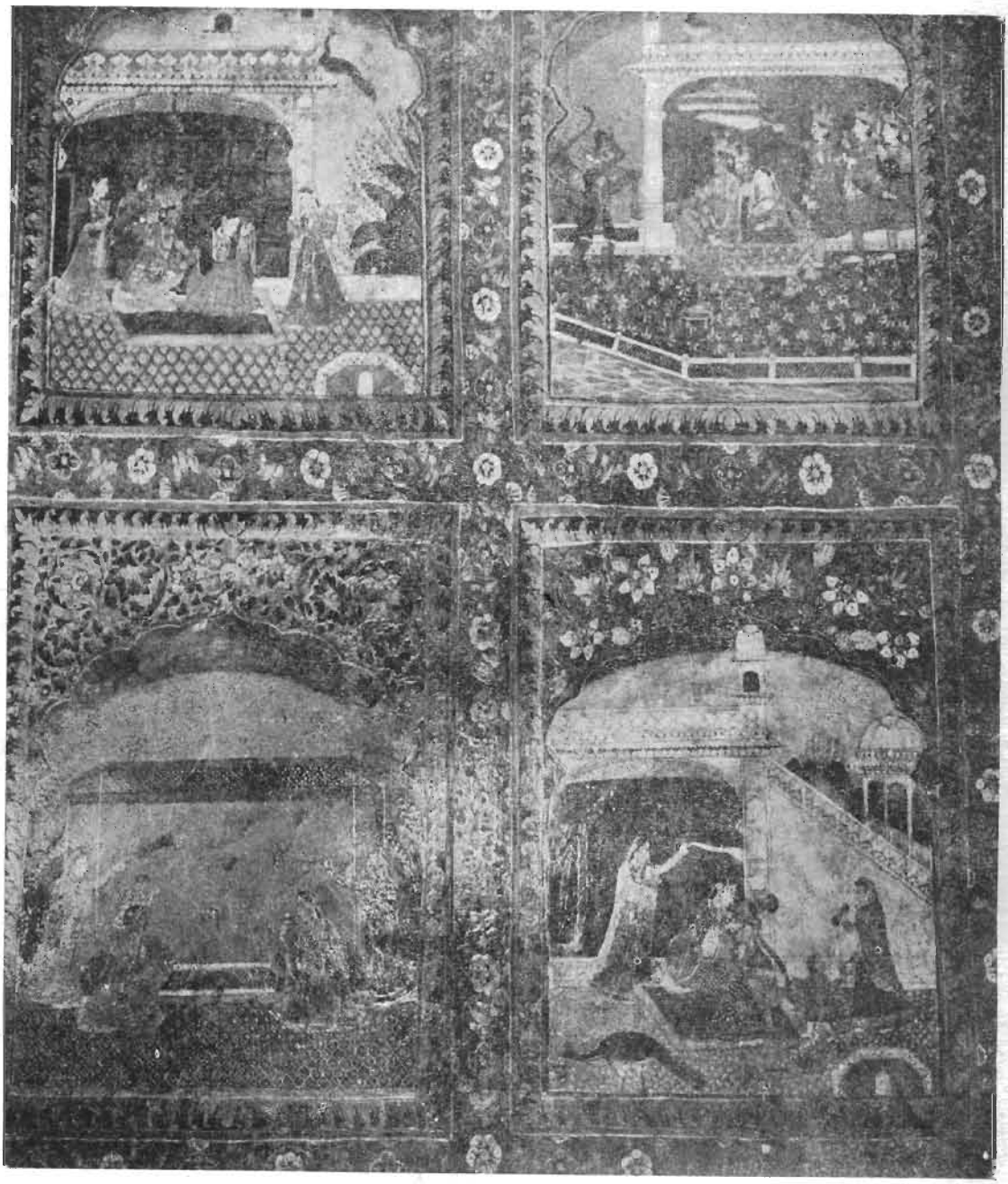


Aview of CHAMBA

Curtesy—Balkishan, Times of India

CHANGAN AND AKHANDCHANDI PALACE—Chamba





An exquisite MURAL, Akhandchandi Palace—Chamba



Another exquisite MURAL, Akhandchandi Palace—Chamba

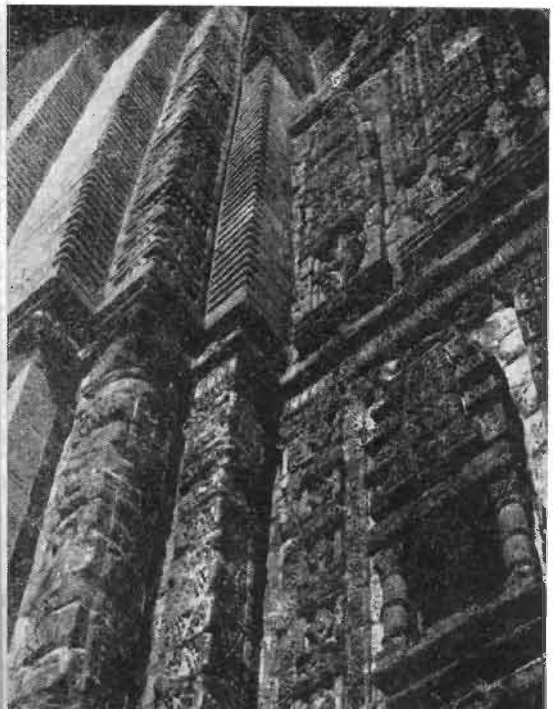


LAKSHMI NARAYAN and other temples, Chamba

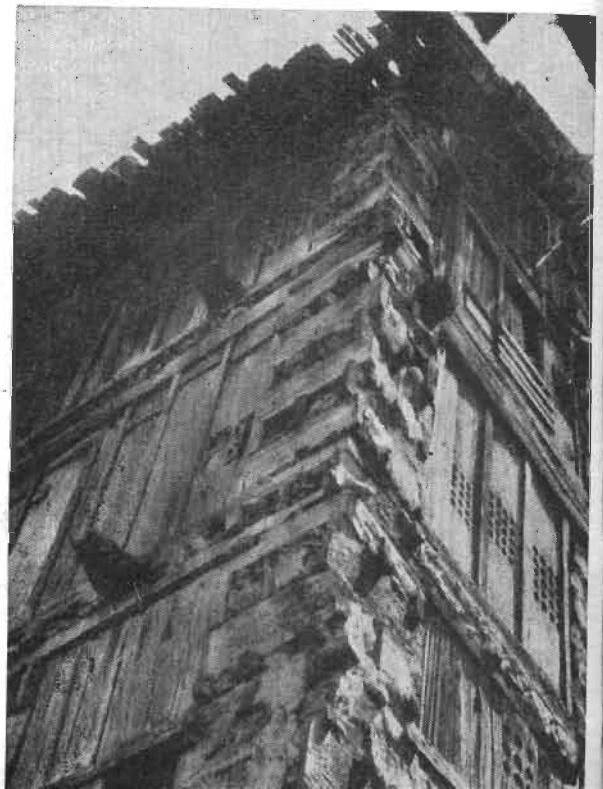


RANG MAHAL, Chamba—
Once famous for its murals

LAKSHMI NARAYAN TEMPLE, Chamba
—Details of stone carving

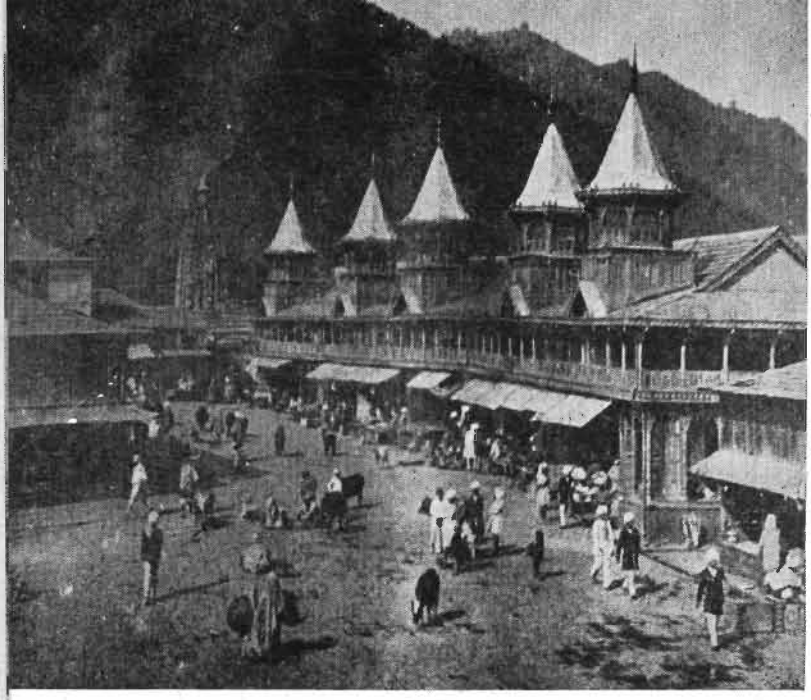


Structure of An OLD HOUSE in Chamba





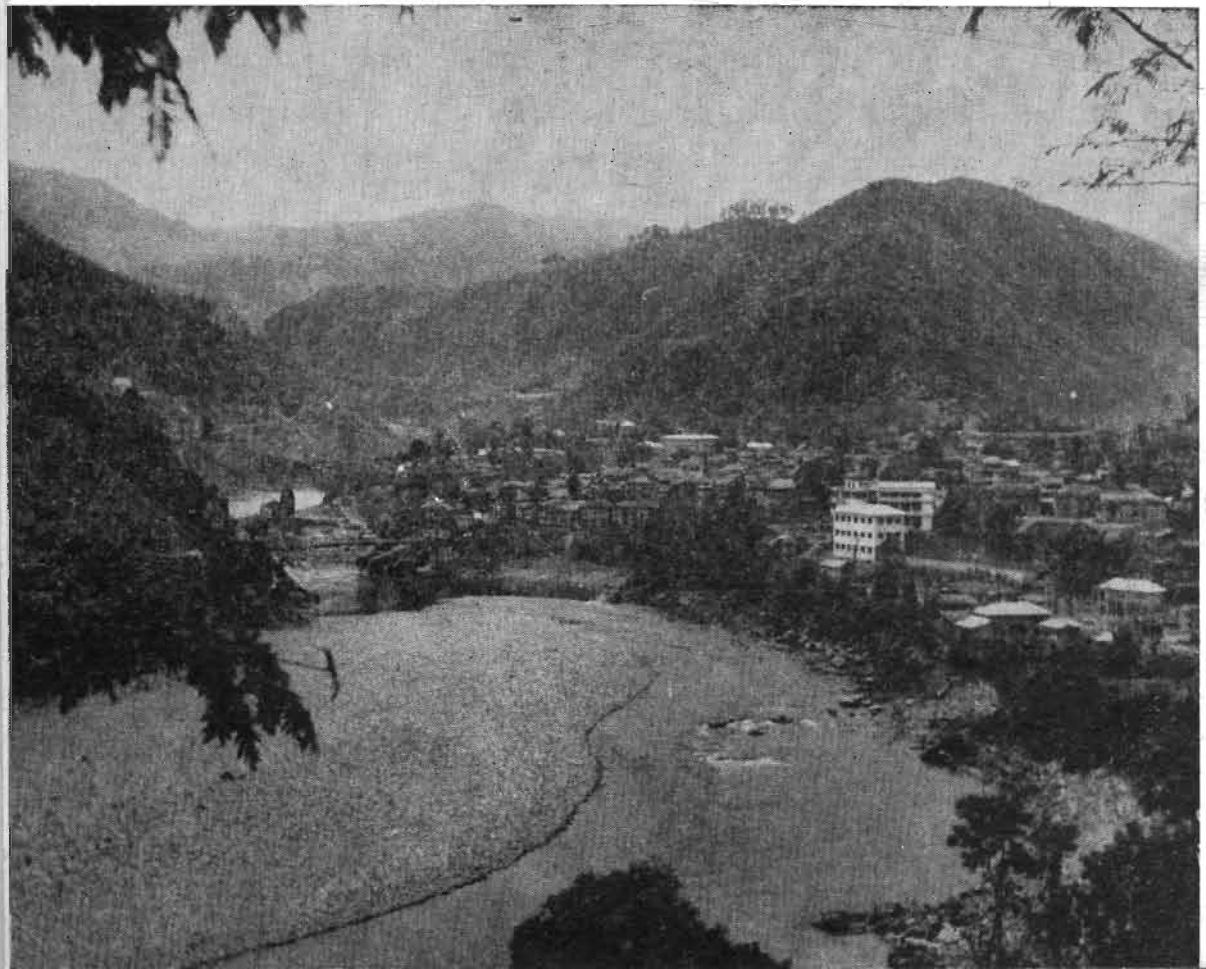
A MURAL FROM RANG MAHAL, Chamba



CHAUHATTA BAZAR, Mandi
1920

Punjab Gazetteer, Mandi State—1920

MANDI





TARNA TEMPLE—Interior
Courtesy—Amar Singh



BUDDHIST MONASTERY, Rewalsar

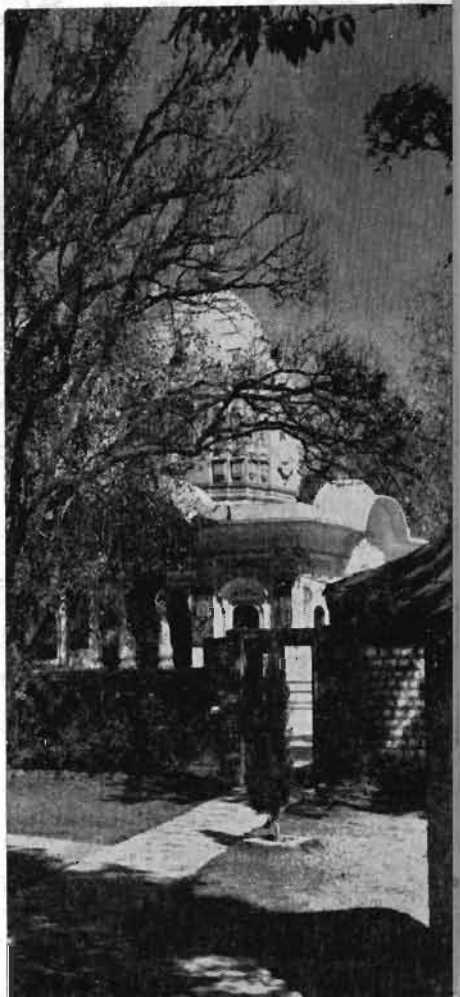
—Durga Singh

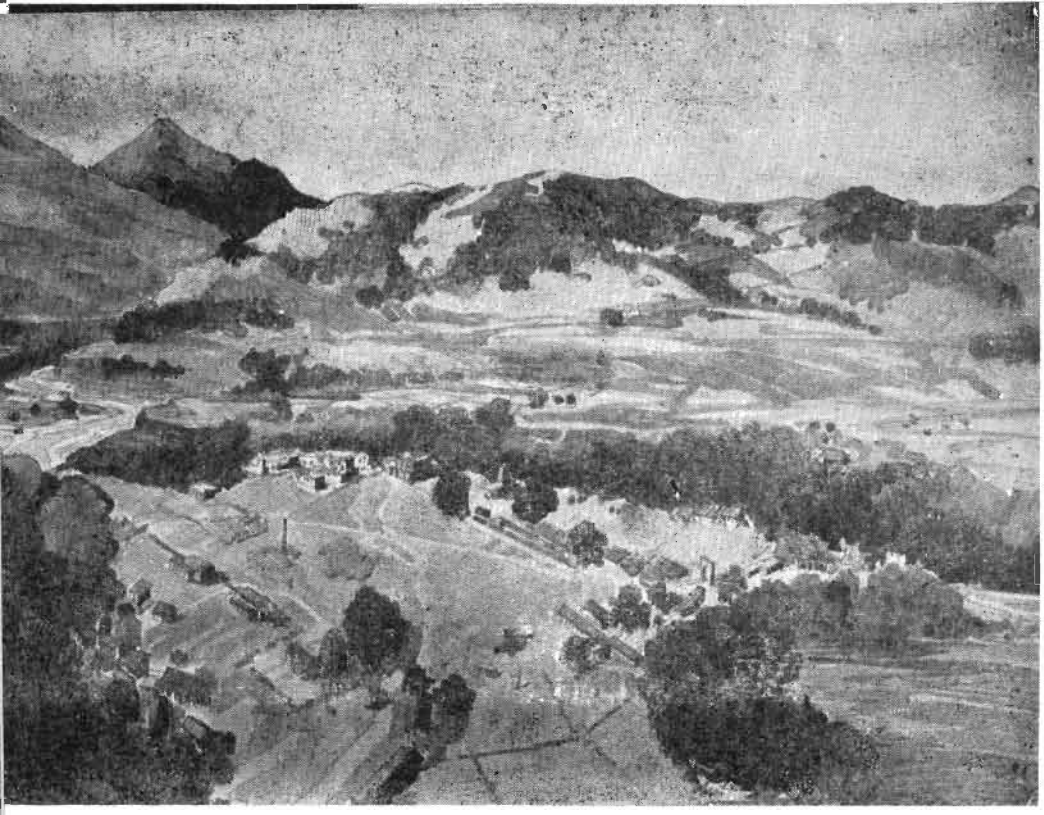
TARNA TEMPLE

Courtesy—Amar Singh

PARASAR DEV TEMPLE, MANDI
Punjab Gazetteer, Mandi State—1920







BILASPUR—now Submerged in Gobind Sagar

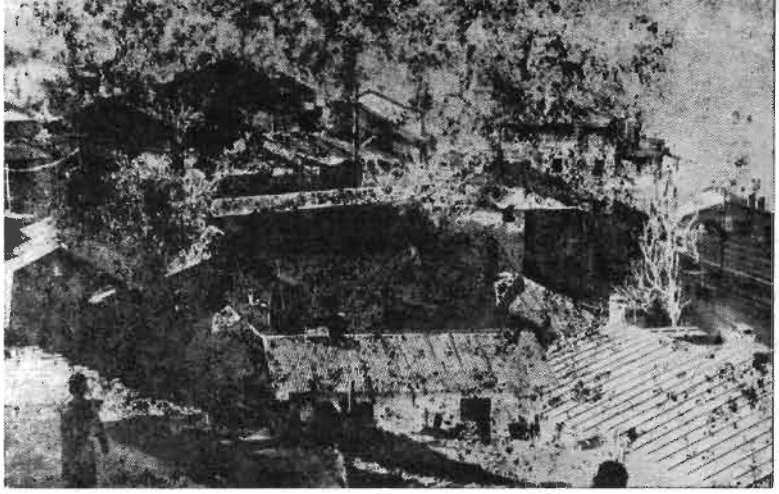
(An artist's impression)

Courtesy—D. D. Bindoo



The Famous

NAINA DEVI TEMPLE



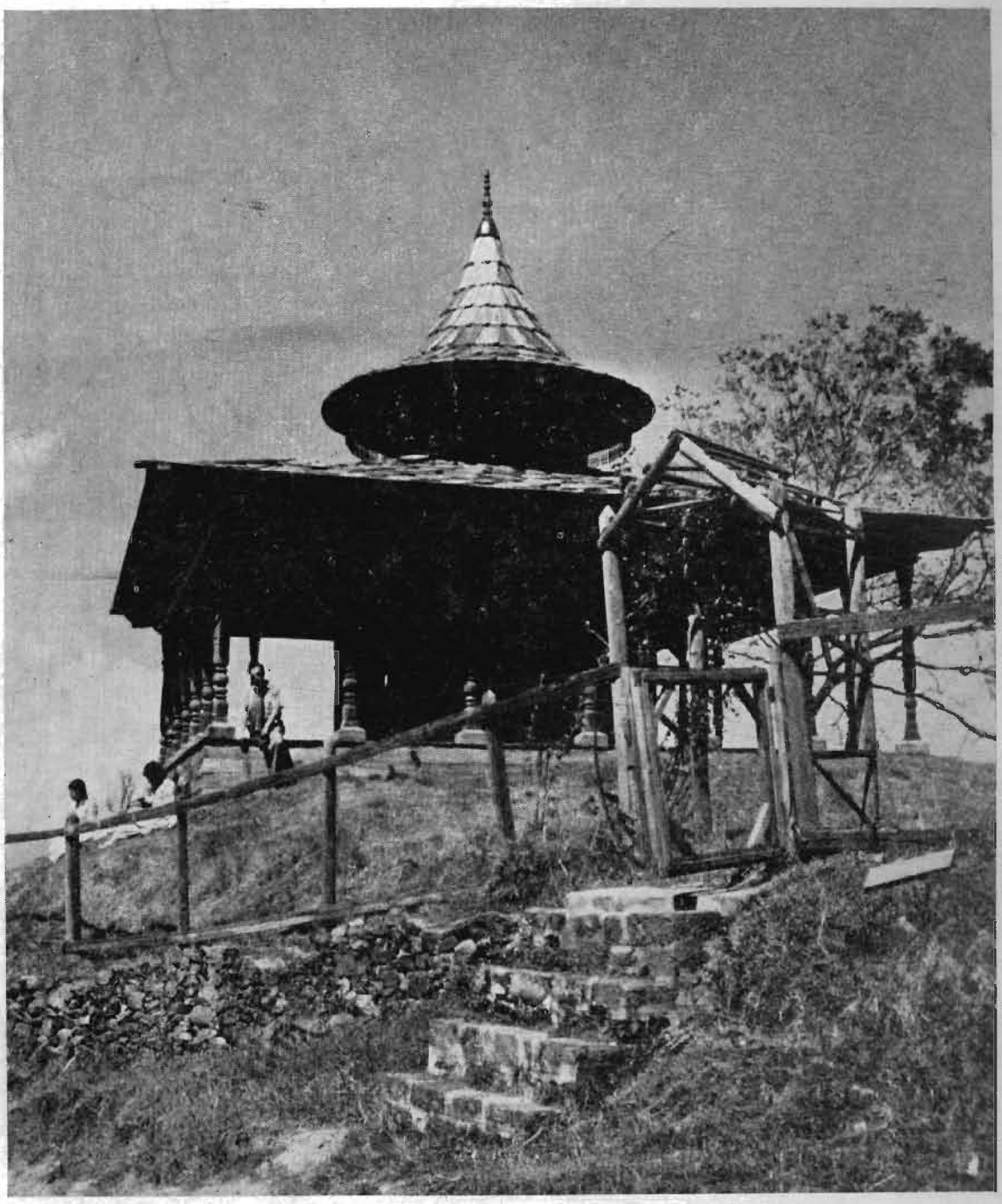
THEOG



LAKSHMI NARAYAN TEMPLE
—New Bilaspur Township



THE
MAIN STREET
in Arki



THE GEETA TEMPLE at Barobagh—Kotgarh built by Sh. Satya Nand Stokes

Courtesy—V. S. Nanda, Editor, 'The Span'



BALASAN PALACE, Theog Tehsil

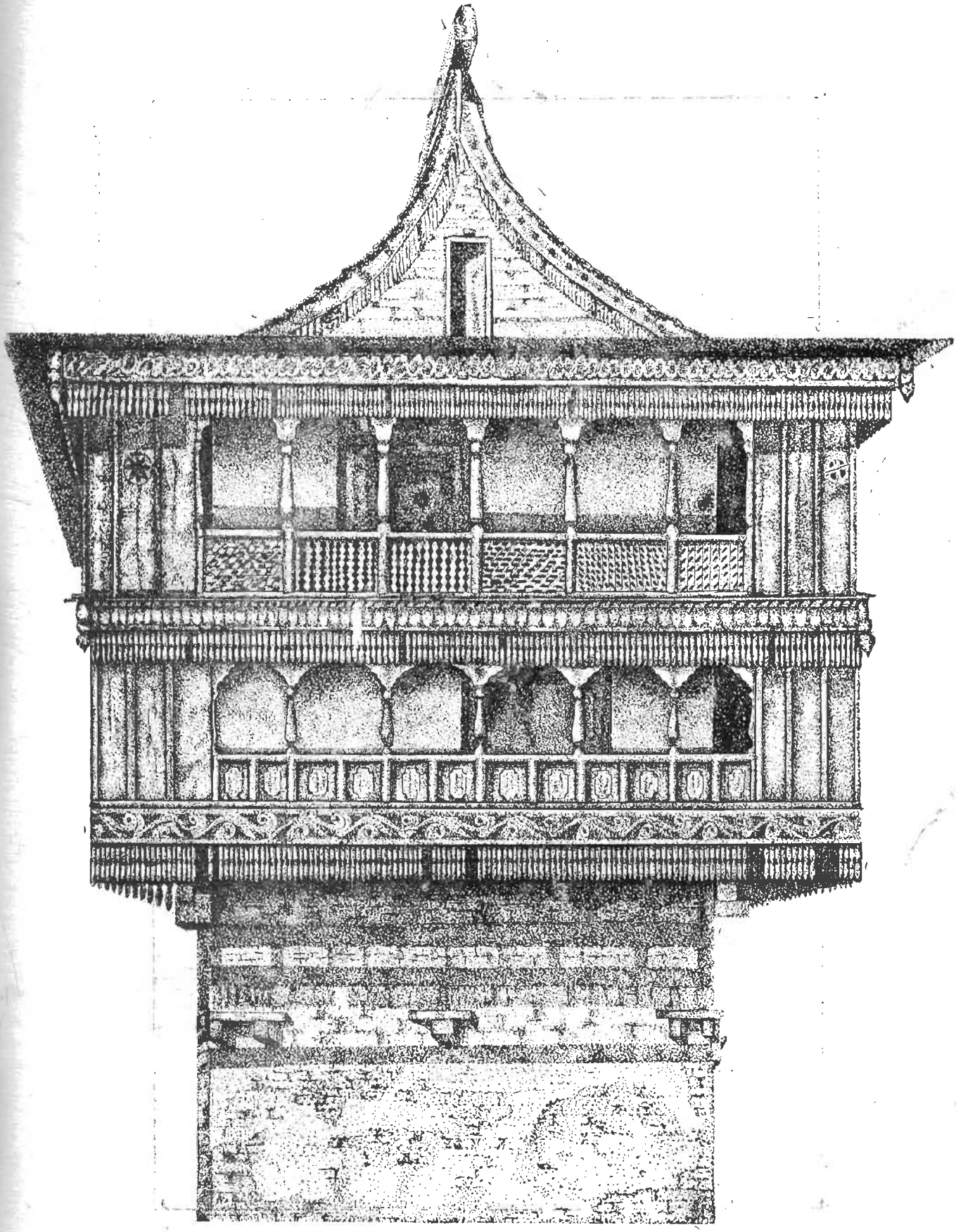


BHIMAKALI TEMPLE
—Sarahan, Rampur Tehsil
(An artist's impression)

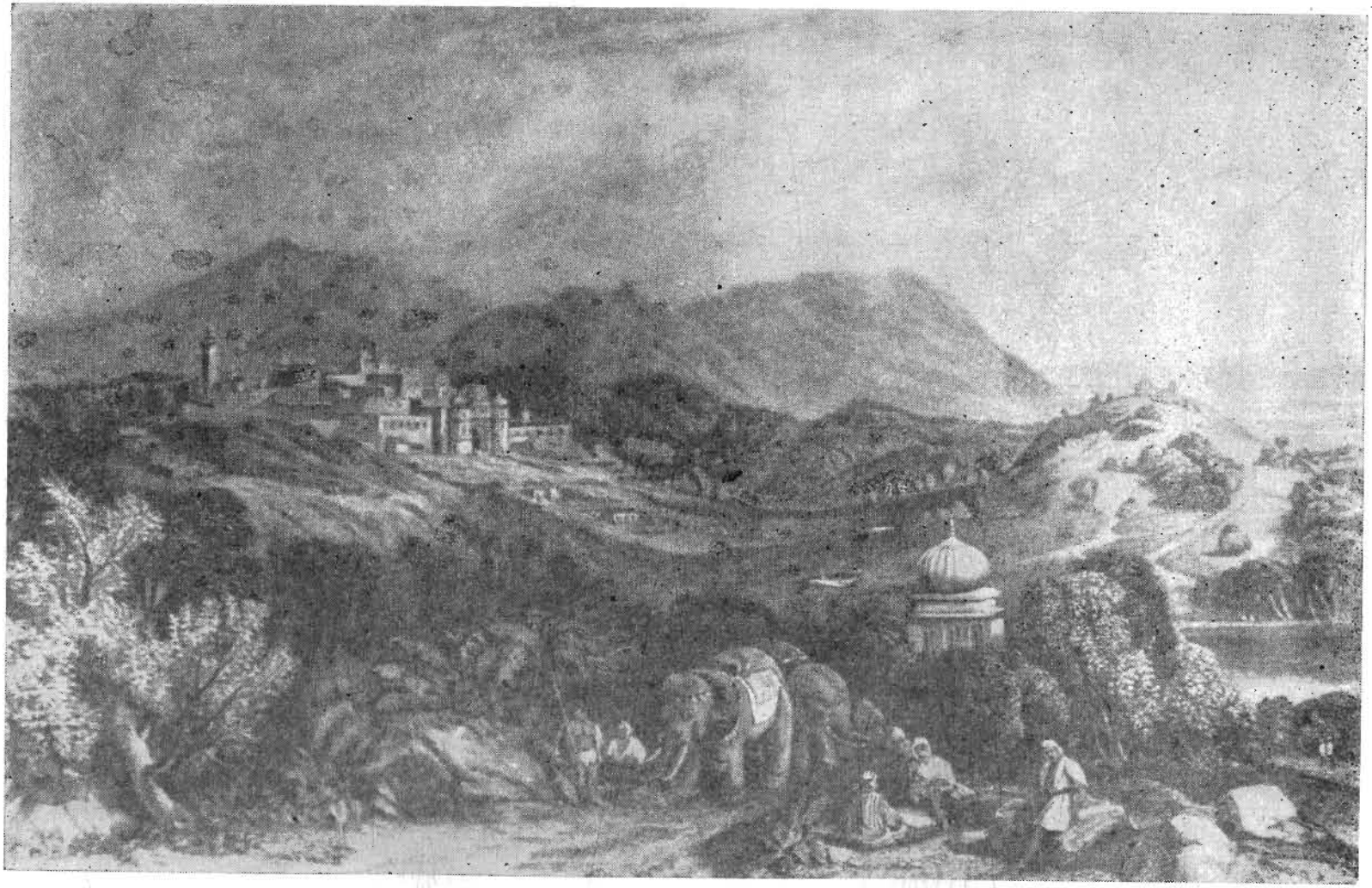
Courtesy—B. C. Gul

A close view of **TWO EXQUISITE MOTIFS** from the silver gate, Bhimakali Temple





TEMPLE AT GIJARI



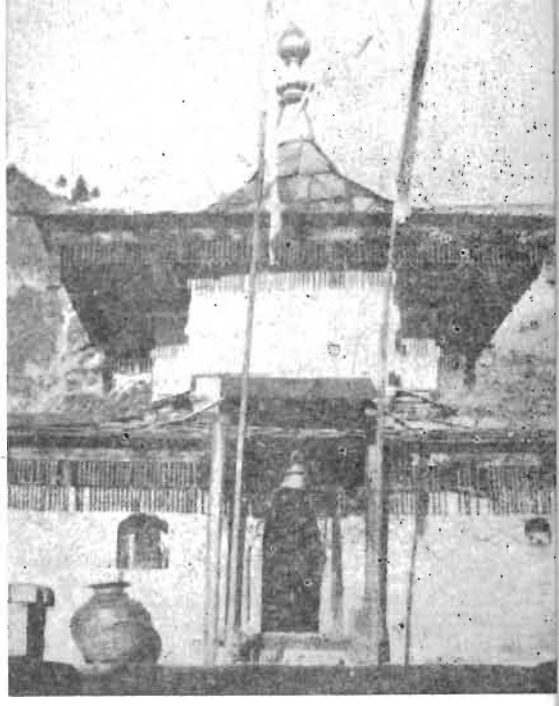
THE CITY OF NAHAN (Past)

Courtesy—Lieut George Francis White

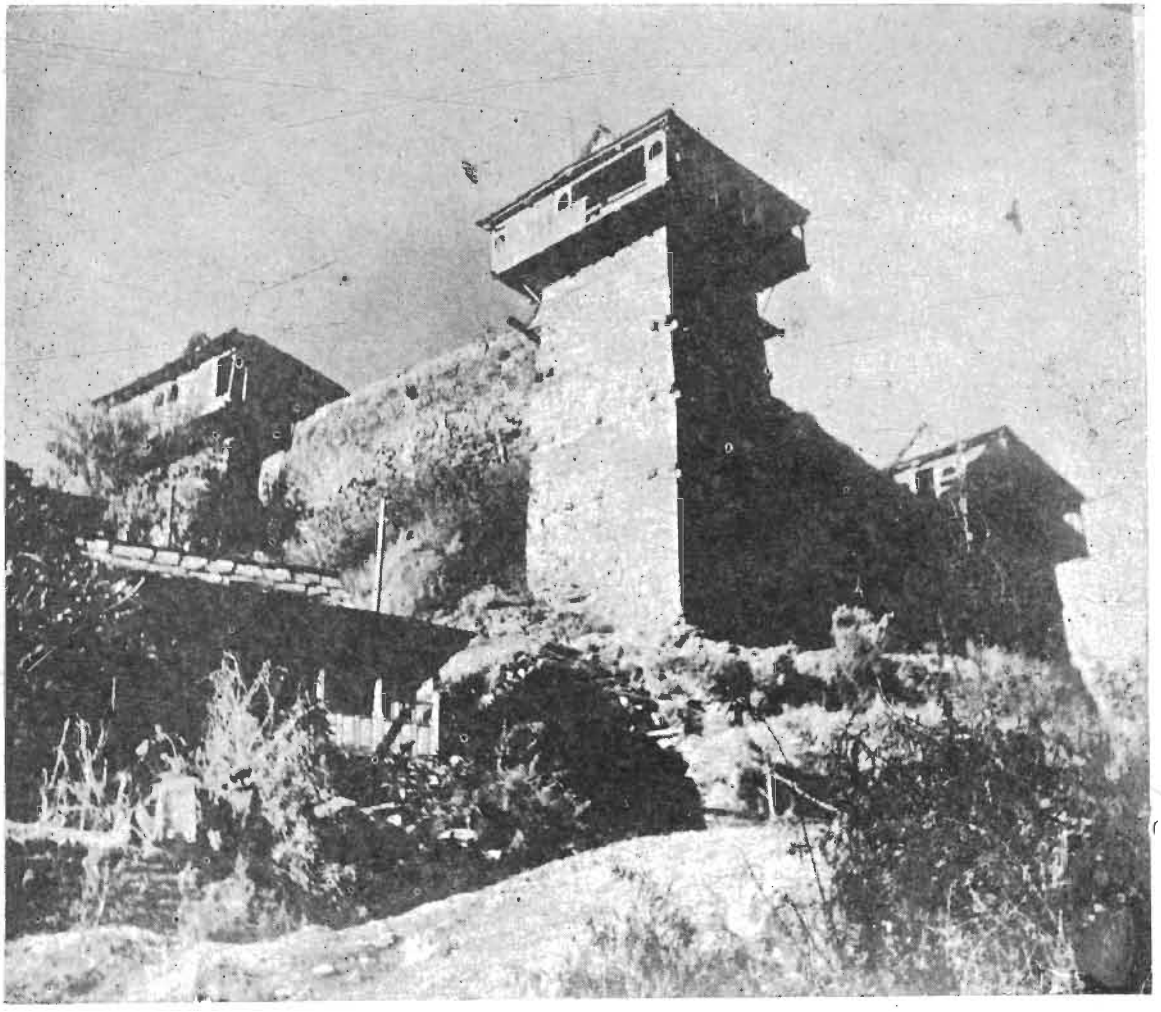


KHANETI PALACE, Kumharsain Sub-Tehsil

Courtesy—Development Commissioner, H.P.



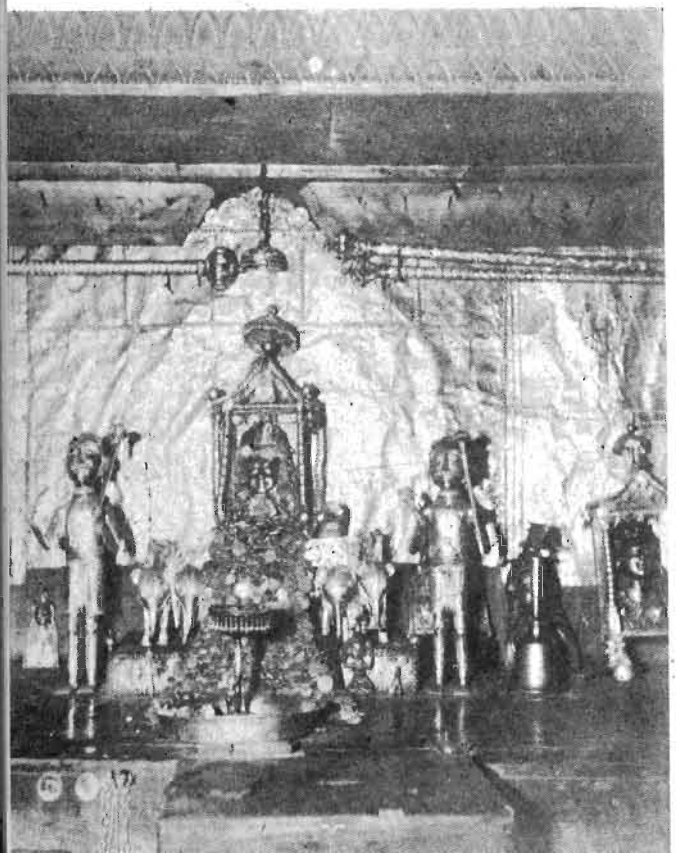
HATKOTI TEMPLE, Jubbal Tehsil
—Goverdhan Singh

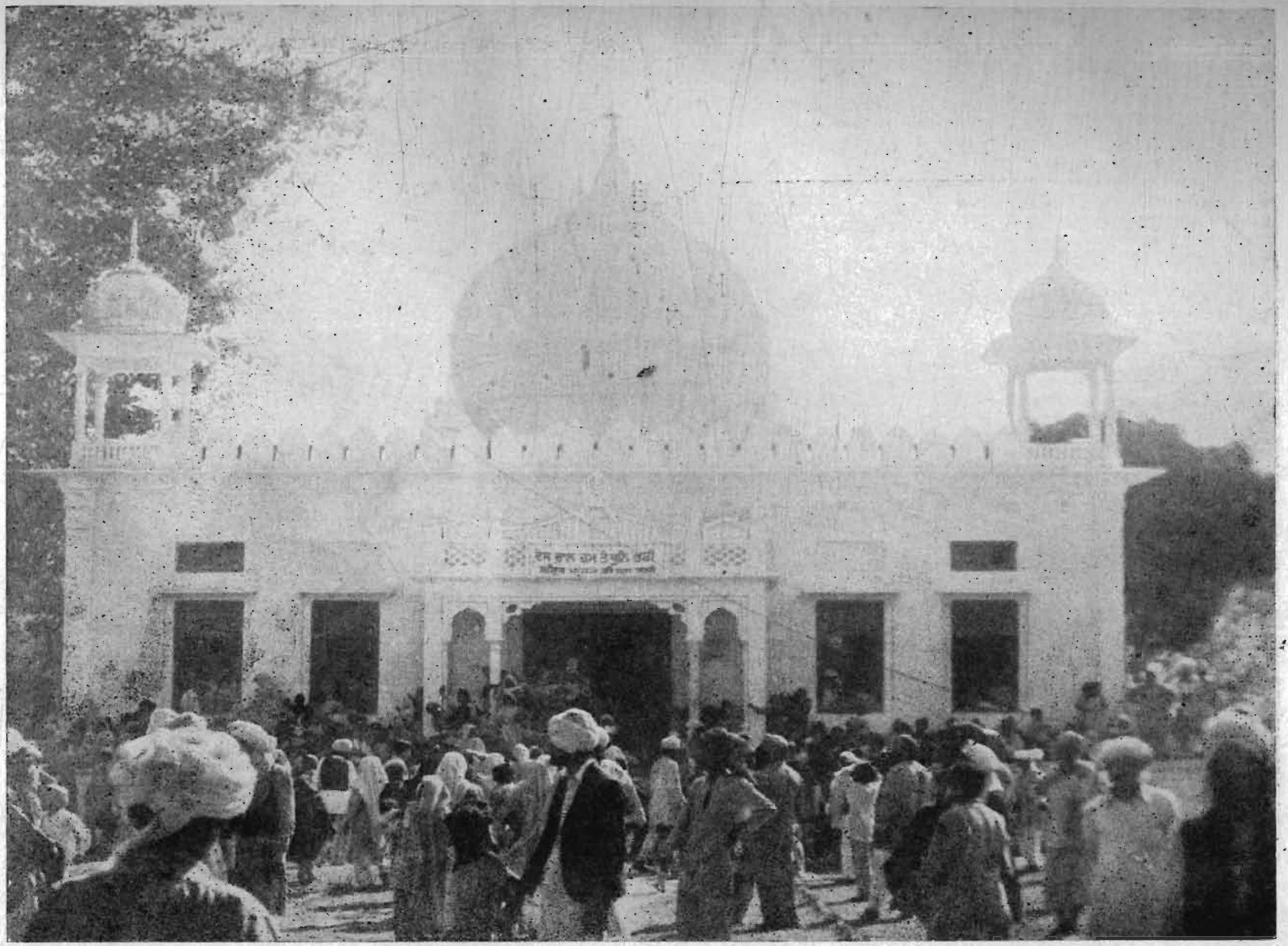


DURGA TEMPLE, Kiyari—Kotkhai Sub-Tehsil

THE SARAN TEMPLE
and
THE DEITY

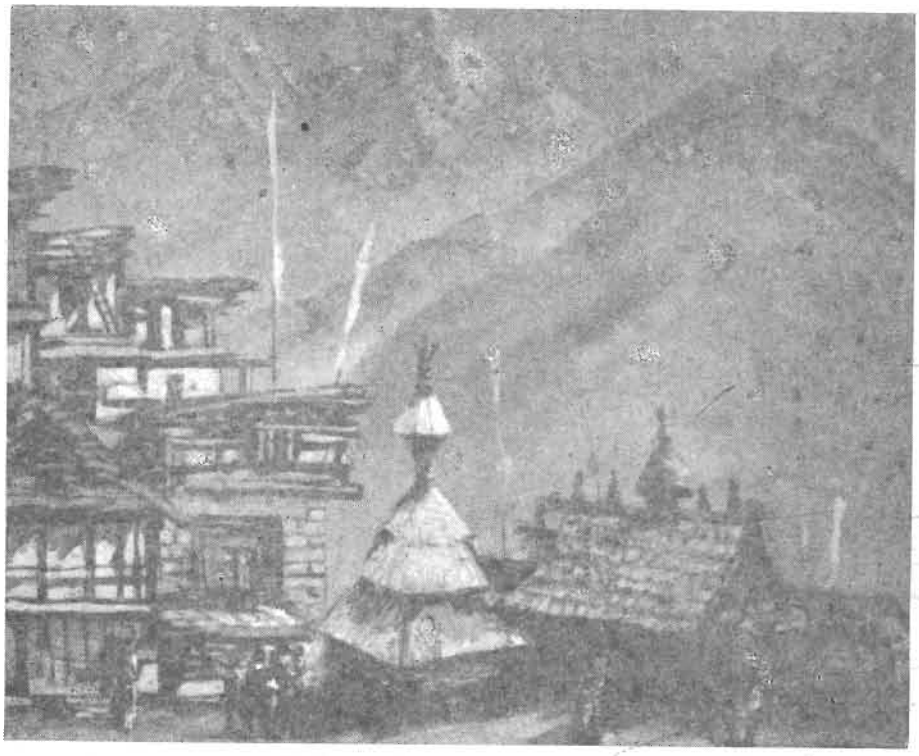
Chaupal Tehsil





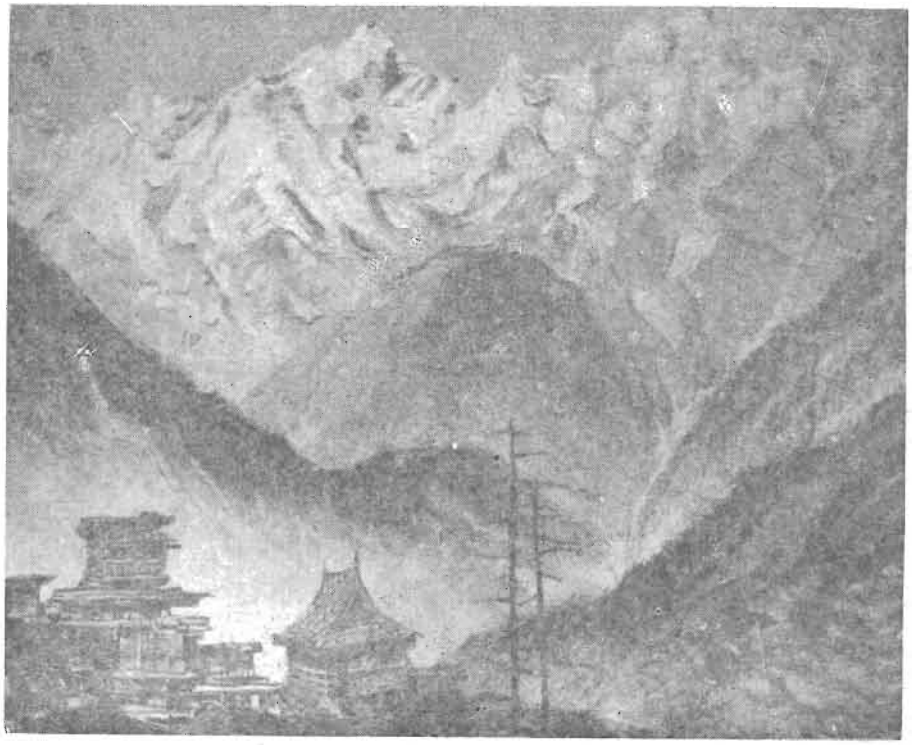
The Famous Gurdwara at Paonta

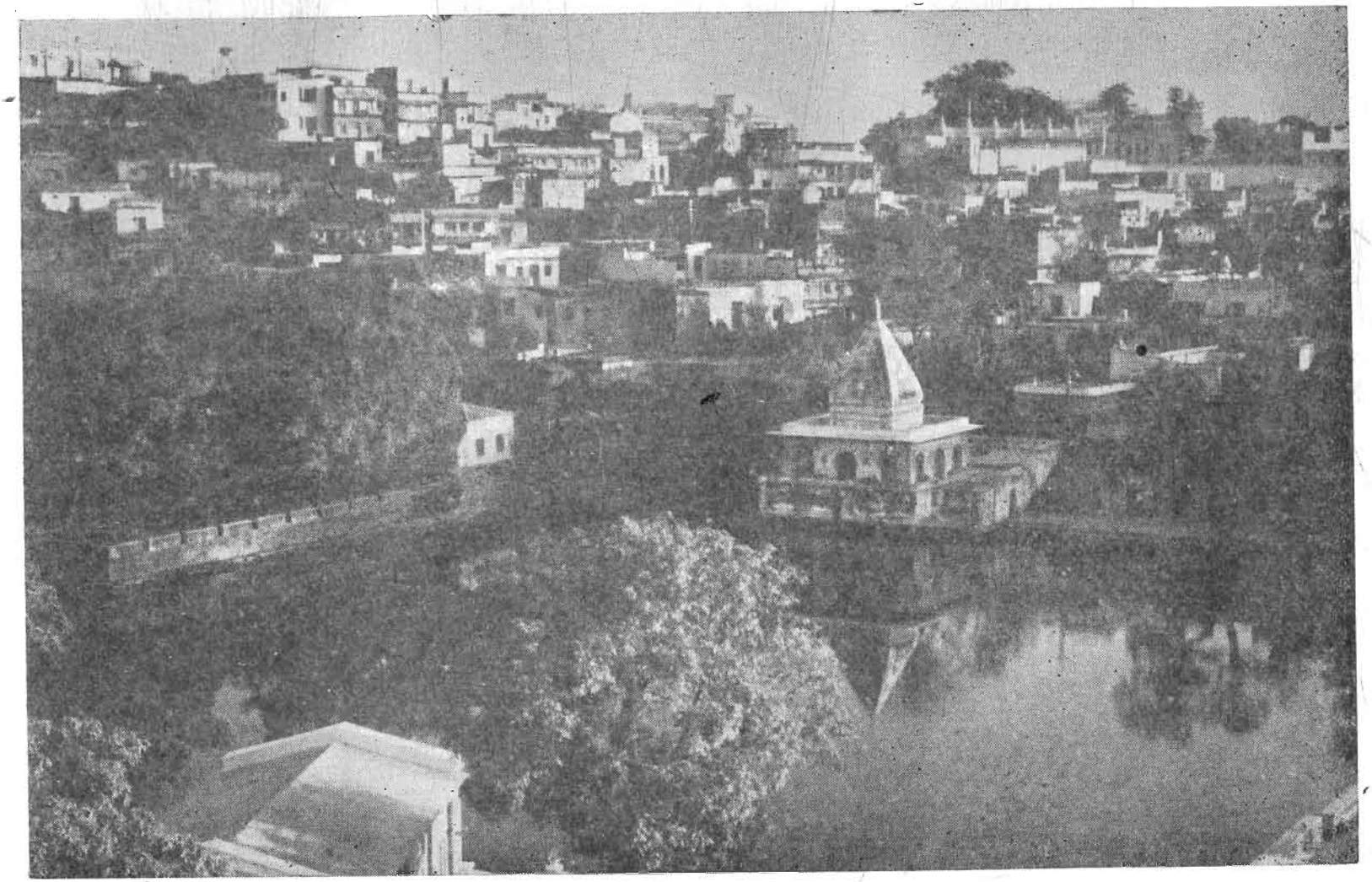
Courtesy—Director of Public Relations, H.P.



An artist's impression of **ROGI TEMPLE** in Kinnaur District

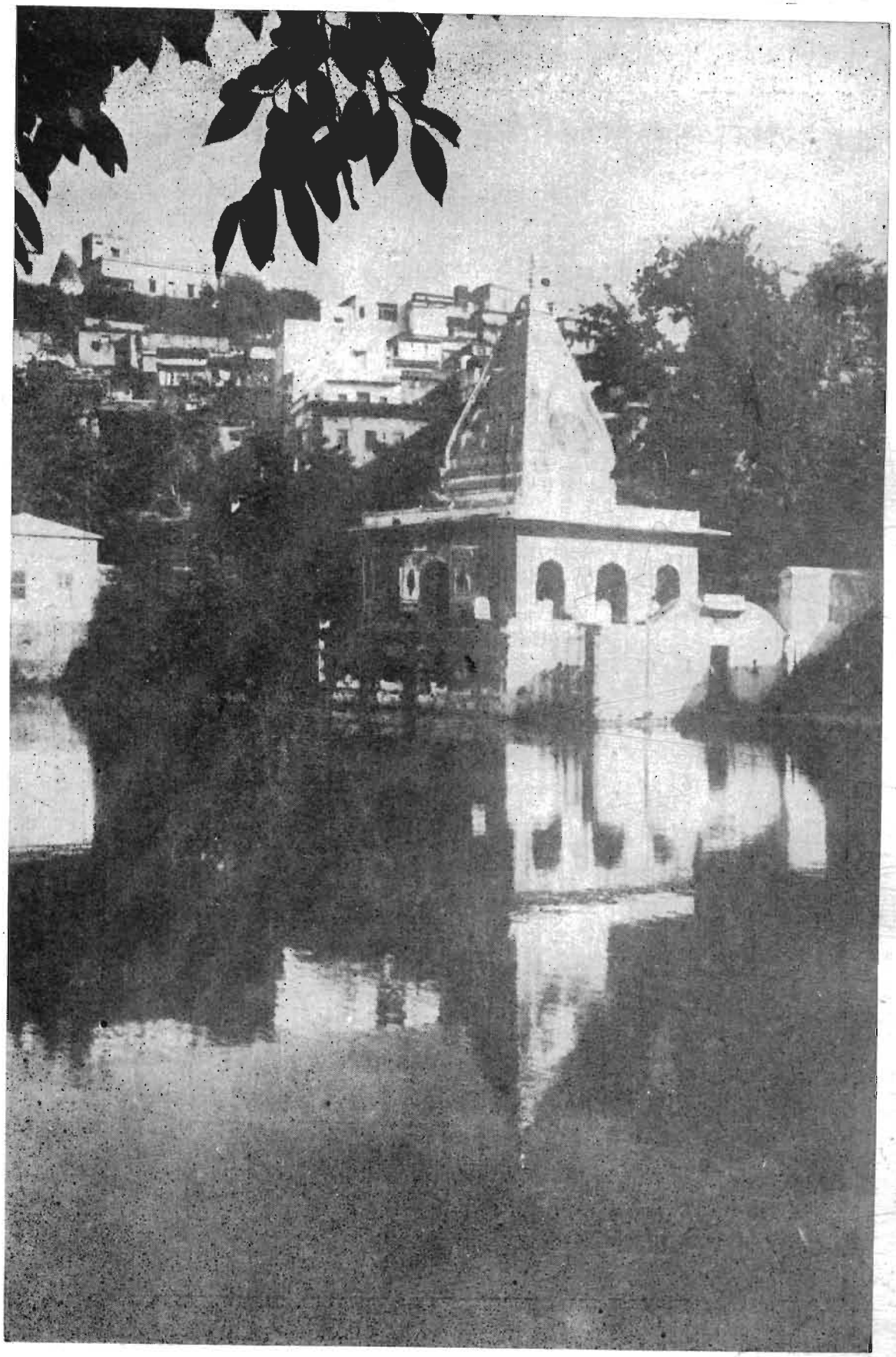
Courtesy—B. C. Gue



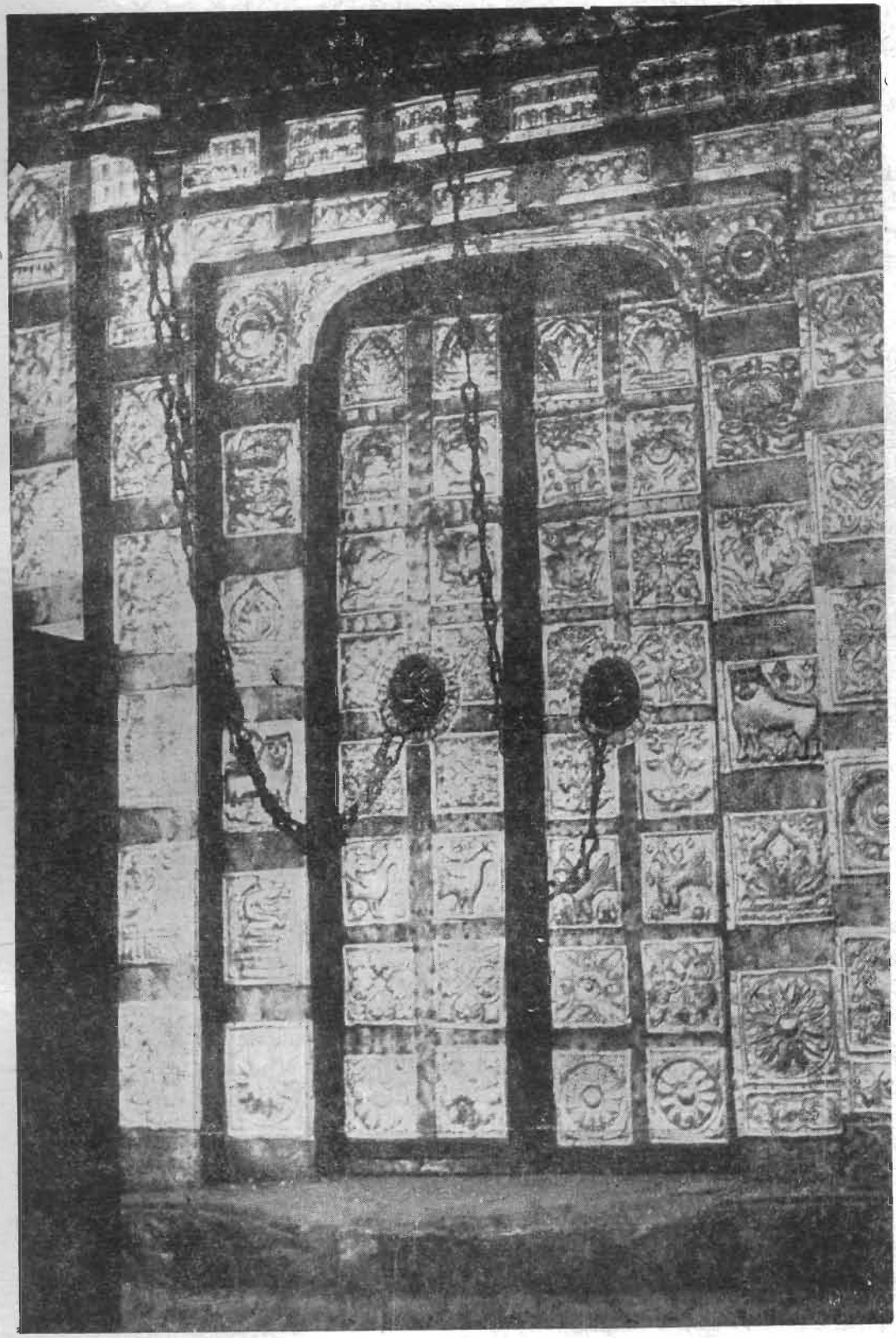


NAHAN (Present)

Courtesy—Director of Public Relations, H.P.



TEMPLE at Pucca Tank, Nahan

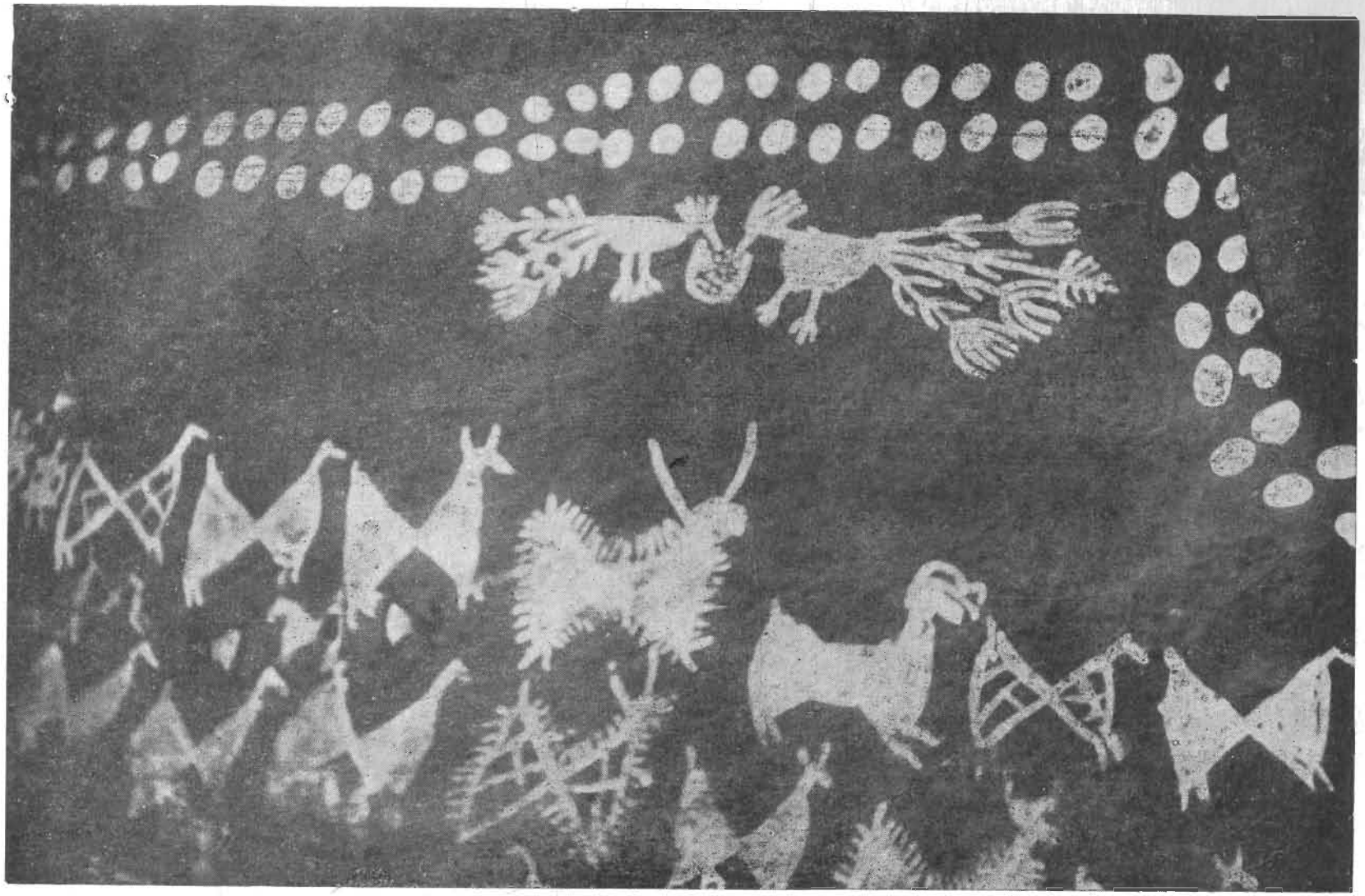


The exquisite **SILVER DOOR** of Chandi Temple at Kothi



An artist's impression of CHANDIKA TEMPLE at Kothi

Courtesy—John Martyn



FOLK WALL PAINTING in Kothi



SUNGRA TEMPLE, Nachar Sub-Division

Courtesy—Anthropological Survey of India

ANNEXURE II

EXPLANATORY NOTE ABOUT THE ENTRIES IN THE HOUSE-LIST 'SPECIMEN OF THE STANDARD HOUSE-LIST FORM'

1. Building No. 1 is a single census house and one house-hold lives in it. The household belongs to a Scheduled Caste.
2. Building No. 2 consists of three census houses. One census house is occupied by two households, the next is vacant and likely to be occupied shortly, and the last is a cattle shed.
3. Building No. 3 is goldsmith's shop.
4. Building No. 4 is being used as shop-cum-dwelling.
5. Building No. 5 is under construction.
6. Building No. 6 is a temple. One room in the structure is being used by Pujari for residential purposes.
7. Building No. 7 is occupied by a Bank.
8. Building No. 8 is being used a work-shop.
9. Building No. 9 is a hut inhabited by a labourer.
10. Building No. 10 is General Ward of the Zanana Hospital.
11. Building No. 11 has Operation Theatre of Zanana Hospital.
12. Building No. 12 is being used as residence by the Doctor Incharge of the Hospital.
13. Building No. 13 accommodates a school.
14. Building No. 14 is being used as a Tea Stall.
15. Building No. 15 is a factory and within the compound is a watchman's quarter.

L/B(N)14SCOIIP—25

Specimen of the Standard House-list Form

CENSUS OF

House

Name of District .....

Name of Tehsil/Town .....

Name of Village/Ward/Mohalla/Enumera-

Line No.	Building Number (Municipal or local authority or Census Number, if any)	Building Number (column 2) with sub-numbers for each census house	Purpose for which census house used, e.g., dwelling, shop, shop-cum-dwelling, business, factory, workshop, school or other institution, jail, hostel, hotel, etc.	If the Census House is used as an Establishment, Workshop or Factory			
				Name of establishment or proprietor	Name of product(s), repair or servicing undertaken	Average No. of persons employed daily last week (including proprietor, or house-hold members, if working)	Kind of fuel or power if machinery is used
1	2	3	4	5	6	7	8
1	1	1	Dwelling	X	X	X	X
2	2	2(1)	Dwelling	X	X	X	X
3	..	..	Dwelling	X	X	X	X
4	..	2(2)	Vacant	X	X	X	X
5	..	2(3)	Cattle Shed	X	X	X	X
6	3	3	Goldsmith's shop	Dharam Chand Jewellers	Gold and Silver ornaments	2	X
7	4	4	Shop-cum-Dwelling	Sharma Sweet Mart	Sweet meats	3	X
8	5	5	X	X	X	X	X
9	6	6(1)	Temple	X	X	X	X
10	..	6(2)	Dwelling	X	X	X	X
11	7	7	Bank	X	X	X	X
12	8	8	Workshop	Sharma Welding Works	Welding of iron and other articles and electroplating	3	Electricity
13	9	9	Dwelling	X	X	X	X
14	10	10	Hospital General Ward	X	X	X	X
15	11	11	Hospital Operation Theatre	X	X	X	X
16	12	12	Dwelling	X	X	X	X
17	13	13	School	X	X	X	X
18	14	14	Tea Stall	X	X	X	X
19	15	15(1)	Factory	Aggarwal Steel Rerolling Mill	Iron Bars and Rods	50	Electricity
20	..	15(2)	Dwelling	X	X	X	X

duly filled in for a few typical cases, for guidance

INDIA, 1961

List

.....(Code No.)

.....(Code No.)

tor's Block.....(Code No.

Description of Census House		Sub-number of each census household with census house number (column 3)	Name of Head of House-hold	Number of rooms in census household	Does the household live in own or rented house? (a)Own (O) (b) Rented (R)	Number of persons residing in Census Household on Day of Visit			Remarks
Material of wall	Material of roof					Males	Females	Total	
9	10	11	12	13	14	15	16	17	18
Kucha Bricks	Thatch	1	Suraj Lal	2	O	3	2	5	S.C.
Pucca Bricks	Tiles	2(1A)	Partap Singh	2	R	2	4	6	
Do	Do	2(1B)	Harbans Lal	2	R	1	3	4	
Do	Do	X	X	X	X	X	X	X	Likely to be occupied shortly
Mud	Wood and Bamboos	X	X	X	X	X	X	X	Partap Singh's Cattle shed
Pucca Bricks	Tiles	X	X	X	X	X	X	X	
Pucca Bricks	Thatch	4	Daulat Ram	1	R	2	X	2	
X	X	X	X	X	X	X	X	X	Under construction
Stone	Stone	X	X	X	X	X	X	X	
Stone	Stone	6(2)	Babu Lal Pujari	1	X	2	1	3	
Pucca bricks	Reinforced concrete	X	X	X	X	X	X	X	Punjab National Bank
Pucca Bricks	Corrugated iron sheets	X	X	X	X	X	X	X	
Reeds, grass and mud	Reeds and Bamboos	X	Bishnu Ram	1	0	2	2	4	
Pucca Bricks	Tiles	X	X	X	X	X	X	X	Zanana Hospital
Do	Do	X	X	X	X	X	X	X	Zanana Hospital
Do	Do	12	Lady Dr. Sohani Devi	4	R	3	4	7	Doctor I/C of Hospital
Do	Cemented	X	X	X	X	X	X	X	S.D. High School
Timber	Corrugated iron sheets	X	X	X	X	X	X	X	Dasondha Singh
Pucca Bricks	Corrugated iron sheets	X	X	X	X	X	X	X	
Do	Tiles	15(2)	Satnam Singh Chowkidar	2	R	4	2	6	
			Total for page .	15	X	19	18	37	

Certified that the information is correct to the best of my knowledge.

Signature of Enumerator Date.....

L/B(N)14SCOHP—25(a)

ANNEXURE III

INSTRUCTIONS FOR THE PREPARATION OF HOUSING TABLES

There are five Housing Tables. Two of them, Tables I and III are to be prepared on full count and three others, Tables II, IV and V, are to be prepared on the basis of 20 per cent sample households. The tables will be prepared separately for the rural areas of a tehsil/taluk/police station/anchal, for every town with a population of 50,000 and over and the other urban areas of a tehsil etc. The tables will be prepared by method of abstraction of entries in the House-list. Slips will not be prepared and sorted as in the case of General Population and Household Economic Tables. The abstracts, which will be prepared for each table, with instructions for their preparation are enclosed.

Marking the sample households—The samples are to be marked separately for the rural areas of a tehsil etc., every town with a population of 50,000 and over and for the entire urban area other than towns with population of 50,000 *and over for a district.* In the last case the tables will however be prepared on the basis of tehsils etc.

Before marking the sample households the House-list should be arranged in order of location code numbers in the case of rural areas for tehsil etc., and in the case of urban areas and other than towns with population of 50,000 and over. In the case of towns with population of 50,000 and over the House-lists should be arranged in order of blocks. The first sample household should be chosen randomly among the first five households in the first House-list. From that every fifth household from the first random household should be continuously marked. This should be done by giving a bold red tick at the right hand side of column 11. The sample should be marked continuously for all the House-lists. If in a particular House-list at the end two households are left after the marking of the sample households then these households should be carried over to the next House-list and the third household in that House-list should be marked as sample household.

For the purpose of preparation of the Abstract it will not be possible for a compiler to handle all the House-lists. It will therefore be convenient to divide the Houselists for the rural areas and also for urban areas other than the towns with population of 50,000 and over in convenient batches after the marking of sample households so that they can be easily handled by compilers. For this purpose it would be desirable at the right hand side top of the House-list to number serially all the House-lists and hand over certain numbers to each of the compilers. This will help in having a check and see that no House-list has been omitted from the compilation.

ABSTRACT I

(TABLE E-I)

CENSUS HOUSES AND THE USES TO WHICH THEY ARE PUT

District: (Name and Code No.) ——————————

Rural area of Taluk/Tehsil/Anchal/Police Station (Name and Code No.) ——————————

Town (50,000 and above population) (Name & Code No.)——————————

Urban area of Taluk/Tehsil/Anchal/Police Station other than towns of 50,000 and above population:

Occupied Census houses used as						
Census houses vacant at the time of houselisting	Dwellings	Shop-cum-dwellings	Workshop-cum-dwellings	Hotels, Hostels, Sarais, Dharamshalas, Tourist homes and Inspection houses	Shops excluding Eating houses	Business houses and Offices
1	2	3	4	5	6	7

Factories registered under Factories Act	Worksheds and Workshops not registered under Factories Act	Schools and other Educational institutions including Training classes, Coaching classes and Shop classes	Restaurants, Sweetmeat shops and Eating places	Places of entertainment and Community gathering (Panchayat Ghar)	Public health and Medical institutions, Hospitals, Health centres, Doctors' clinics, Dispensaries etc.	Others
8	9	10	11	12	13	14

This Abstract has to be prepared for Table I 'Census houses and the uses to which they are put'. This table will be prepared on the full count. The relevant column in the Houselist is column 4. The preparation of the Abstract has to be made with reference to the entries in that column which should be classified into the various categories given in the table. To facilitate compilation write at the right hand side of this column the following code numbers:—

Dwellings	A
Shop-cum dwellings	B
Workshop-cum-dwellings	C
Hotels, Hostels, Sarais, Dharamshalas, Tourist homes and Inspection houses	D
Shops excluding Eating houses	E
Business houses and Offices	F
Factories registered under Factories Act	G
Worksheds and Workshops not registered under Factories Act	H
Schools and other Educational institutions including Training classes, Coaching and Shop classes	J
Restaurants, Sweetmeat shops and Eating places	K
Places of entertainment and community gathering (Panchayat Ghar)	L
Public health and Medical institutions, Hospitals, Health centres, Doctor's clinics, Dispensaries etc.	M
Others	N
Census houses vacant at the time of houselisting	O

On a separate sheet of paper make a frequency-table as shown below, the first column of which should indicate the different uses to which the census houses are being put by the code number allotted and in the second column the frequency. This will facilitate counting.

Frequency Table

Census house used as 1	Frequency 2
A	
B	
C	
D	
etc.	

Start from the 1st entry in the column 4 of the House-list. As you pass one type of the code number put a tally mark in the above table against that code number and go on making tally marks in the table. As soon as you find a code number for the fifth time put a line across the four tally marks (𝍸) which indicates that 5 entries of the said code has passed. When you have finished all the entries of column 4 of the House-list, count the number of tally marks in the frequency table of various categories of code numbers and fill up the figures in the Abstract with the help of the frequency table.

This table relates to occupied Census houses and not to households. In the case of Census houses used as dwellings and consisting of a number of households as many lines as there are households in the Census house, will be used in the House-list. Column 4 may be left blank in some cases and 'Dwelling' may have been written in other cases. For the purpose of this table there will be only one Census house.

ABSTRACT II

(TABLE E-II)

TENURE STATUS OF SAMPLE CENSUS HOUSEHOLDS LIVING IN CENSUS HOUSES USED WHOLLY OR PARTLY AS DWELLINGS

District: (Name & Code No.) ———————————————————————

Rural Area of Taluk/Tehsil/Anchal/Police Station (Name and Code No.) ———————————————

Town (50,000 and above population) (Name and Code No.) ———————————————————

Urban area of Taluk/Tehsil/Anchal/Police Station other than towns of 50,000 and above population ———————

Tenure Status							
Dwellings		Shop-cum-dwellings		Workshop-cum-dwellings		Dwellings with other uses	
Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
1	2	3	4	5	6	7	8

This Abstract has to be prepared for Table II. This will relate only to sample households i.e., those that have been noted with a red tick in column 11. The relevant columns in the House-list are 4 and 14. The preparation of the Abstract has to be done with reference to the entries in these columns. To facilitate compilation you will have to codify the entries in the two columns 4 and 14. The codes are given below. You should write the combined code in the right hand side of column 14.

The following abbreviations will be used for the types of households : (col. 4) :

Dwellings	A
Shop-cum-dwellings	B
Workshop-cum-dwellings	C
Others	O

The following abbreviations will be used for the tenure status (col. 14) :

Owned	O
Rented	R

Thus there will be 8 types of codes, viz; AO, BO, CO, OO, AR, BR, CR, OR. In the case of each sample household write the appropriate code with referenee to the entries in columns 4 and 14 at the right hand side of column 14.

On a separate sheet of paper make a frequency table as shown below, the first column of which should indicate the above 8 codes and the second column their frequency. This will facilitate counting.

Frequency Table

Type of household and Tenure Status	Frequency
1	2
AO	
BO	
CO	
OO	
AR	
BR	
CR	
OR	

Start from the first sample household and make a tally mark against the appropriate code. Proceed in the order of sample households putting tally-marks against the appropriate code in frequency table. Go on making tally marks in the frequency table till you finish all the *sampled households.* As soon as you find a code number for the 5th time put a line against the four tally marks 𝍸 which indicates that 5 entries of the said code have passed. This cross tick facilitate final counting.

Count the number of various codes in the frequency table. Fill the figures in the abstract with the help of these frequency tables.

ABSTRACT III

(TABLE E-III)

CENSUS HOUSES USED AS FACTORIES AND WORKSHOPS CLASSIFIED BY INDUSTRY, POWER AND NO POWER USED AND SIZE OF EMPLOYMENT

District: (Name and Code No.) ——————————————————

Rural area of Taluk/Tehsil/Anchal/Police Station (Name and Code No.) ——————————————————

Town (50,000 and above population) (Name and Code No.) ——————————————————

Urban area of Taluk/Tehsil/Anchal/Police Station other than towns of 50,000 and above population ——————————————————

	Number of factories and workshops by size of employment						
Total	*1 person*	*2—5 persons*	*6—9 persons*	*10—19 persons*	*20—49 persons*	*50—99 persons*	*100 persons and above*
1	2	3	4	5	6	7	8

This Abstract is to be prepared for Table III, 'Census houses used as factories and workshops classified by industry, power and no power used and size of employment'. This table will be prepared on full count. The Abstract has to be prepared with reference to the entries made in these columns.

First, each entry in column 6 in the House-list, i.e., the name of product(s) or repair or servicing under-taken should be coded where the name of power or fuel used is given in column 8. If column 8 is nil the entry in column 6 need not be coded. The three-digit industrial code (minor group number) of National Standard Industrial Classification should be given. This number should be written in the right hand side of the column leaving space to write the other codes mentioned below.

You should now write the code for entry in column 7 after the minor group number in column 6. For this purpose the following codes will be used for the different sizes of employment:—

1 person	A
2-5 persons	B
6-9 persons	C
10-19 persons	D
20-49 persons	E
50-99 persons	F
100 persons and above	G

You should then write the code for entry in column 8 kind of fuel or power, if machinery is used after the code for size of employment in column 6. The following abbreviations will be used for kind of fuel or power used:—

Electricity	I
Liquid fuel	II
Coal, Wood and Bagasse	III
Others	IV

(The entry in column 8 of the House-list may not be merely 'Electricity', 'Liquid fuel', 'Coal, Wood and Bagasse' and 'Others'. The entries will have to be classified among one of the four classes. If you have any difficulty in classification you should refer the matter to your superior officer).

Thus for a Rice Mill where electricity is used and where 10 persons are employed the codes will be 200 DI. This will have to be written at the right hand side of column 6 of the House-list.

You should then prepare the Abstract with reference to the code written in column 6. For purpose of preparing the Abstract you should open a frequency table in the following form:—

Frequency Table

Minor Group No. Kind of fuel and size of employment 1	Frequency 2
IA	
IB	
IC	
etc.	
IVF	
IVG	

The frequency tables will be prepared for each minor group of industry. You take the first minor group you come across in the House-list and put tally mark according to the fuel or power and size of employment. You should tick off the entry in the House-list. You should then locate the same minor group in the House-list wherever occurring and make tally marks according to the fuel or power and size of employment and tick off the entries which you have entered in the frequency table. As soon as you find a code number for the fifth time put a line across the four tally marks 𝍸 which indicates that five entries of the said code have passed.

Count the number in the frequency tables of various categories of code numbers.

You should take the next minor group occurring in the House-list and repeat the process using a separate sheet. Similarly you should take the minor groups in succession occurring in the House-list and prepare frequency tables. You should tick off the entries that you have taken into account for purposes of frequency tables. When you have exhausted all the minor groups and prepared the necessary frequency tables you should arrange the tables in order of minor groups and post the totals in the Abstract.

ABSTRACT IV

(TABLE E-IV)

DISTRIBUTION OF SAMPLE HOUSEHOLDS LIVING IN CENSUS HOUSES USED WHOLLY OR PARTLY AS DWELLINGS BY PREDOMINANT MATERIAL OF WALL AND PREDOMINANT MATERIAL OF ROOF

District (Name and Code No.) ———————————————

Rural area of Taluk/Tehsil/Anchal/Police Station (Name and Code No.) ———————————————

Town (50,000 and above population) (Name and Code No.) ———————————————

Urban area of Taluk/Tehsil/Anchal/Police Station other than towns of 50,000 and above population ———————————————

Predominant material of wall

Grass, leaves, reeds or bamboo	Timber	Mud	Unburnt bricks	Burnt bricks	CI sheets or other metal sheets	Stone	Cement Concrete	All other material
1	2	3	4	5	6	7	8	9

Predominant material of roof

Grass, leaves, reeds, thatch, wood or bamboo	Tiles, slates, shingle	Corrugated iron, zinc, or other metal sheets	Asbestos cement sheets	Brick and lime	Concrete or stone slabs	All other material
10	11	12	13	14	15	16

This abstract has to be prepared for Table IV 'Distribution of sample households living in Census Houses used wholly or partly as dwellings by predominant material of wall and predominant material of roof'. This abstract relates to sample households. All sample households will have been noted with a red tick in column 11. The relevant columns in the House-list are 9 and 10. The table has to be prepared with reference to the entries in these columns. It will facilitate compilation if in the sample households you indicate the material of the wall (column 9) and material of roof (column 10) with the following code:—

Col. 9

Grass, leaves, reeds or bamboo	1
Timber	2
Mud	3
Unburnt bricks	4
Burnt bricks	5
CI sheets or other metal sheets	6
Stone	7
Cement Concrete	8
All other material	9

Col. 10

Grass, leaves, reeds, thatch, wood or bamboo	A
Tiles, slate, shingle	B
Corrugated Iron, Zinc or other metal sheets	C
Asbestos cement sheets	D
Brick and lime	E
Concrete and stone	F
All other material	G

First prepare the abstract for material of wall. On a separate sheet of paper make frequency table as shown below:—

Frequency Table

Material of wall	Frequency
1	2
1	
2	
3	
E	
T	
C	
9	

Start from the first sample household and make a tally-mark in the frequency table against the appropriate code. Proceed in the order of sample households putting the tally-marks against the appropriate code in the frequency table. As soon as you find a code number for a fifth time put a line against the four tally-marks 𝍸 which indicates that five such code numbers have passed. Count the number of various codes in the frequency table. Fill the figures in columns 1—9 of the abstract with the help of the frequency table.

Next take up material of the roof. On a separate sheet of paper make frequency distribution as shown below:—

Frequency Table

Material of roof	Frequency
1	2
A	
B	
C	
D	
etc.	

Start from the first sample household and make a tally-mark in the frequency table against the appropriate code.

Proceed in the order of the sample households putting the tally-marks against the appropriate code in the frequency table. As soon as you find a code number for the fifth time put a line against the four tally-marks 𝍸 which indicates that five such code numbers have passed. Count the number of various codes in the frequency table. Fill the figures in columns 10—16 of the abstract with the help of the frequency table.

ABSTRACT V

(TABLE E-V)

SAMPLE HOUSEHOLDS CLASSIFIED BY NUMBER OF MEMBERS AND BY NUMBER OF ROOMS OCCUPIED

District: (Name and Code No.) ——————————————————

Rural area of Taluk/Tehsil/Anchal/Police Station (Name and Code No.) ——————————————————

Town (50,000 and above population) (Name and Code No.) ——————————————————

Urban area of Taluk/Tehsil/Anchal/Police Station other than town of 50,000 and above population ——————————————————

Households with no regular room			Households with one room			Households with 2 rooms		
No. of households	No. of members		No. of households	No. of members		No. of households	No. of members	
	M	F		M	F		M	F
1	2	3	4	5	6	7	8	9

Households with 3 rooms			Households with 4 rooms			Households with 5 rooms or more			
No. of households	No. of members		No. of households	No. of members		No. of households	No. of rooms	No. of members	
	M	F		M	F			M	F
10	11	12	13	14	15	16	17	18	19

This Abstract has to be prepared for Table V 'Sample Households classified by number of members and by number of rooms occupied'. This will relate only to sample households i.e., those that have been noted with a red tick in column 11 of the House-list. The relevant columns in the House-list are 13, 15 and 16. Before preparing the Abstract totalling sheets will have to be prepared separately for households with no regular room, households with one room, households with 2 rooms, households with 3 rooms and households with 4 rooms. These sheets should be in the following form:—

Households with 1 room		
Sl. Number of household	Number of members	
	M	F
1	2	3

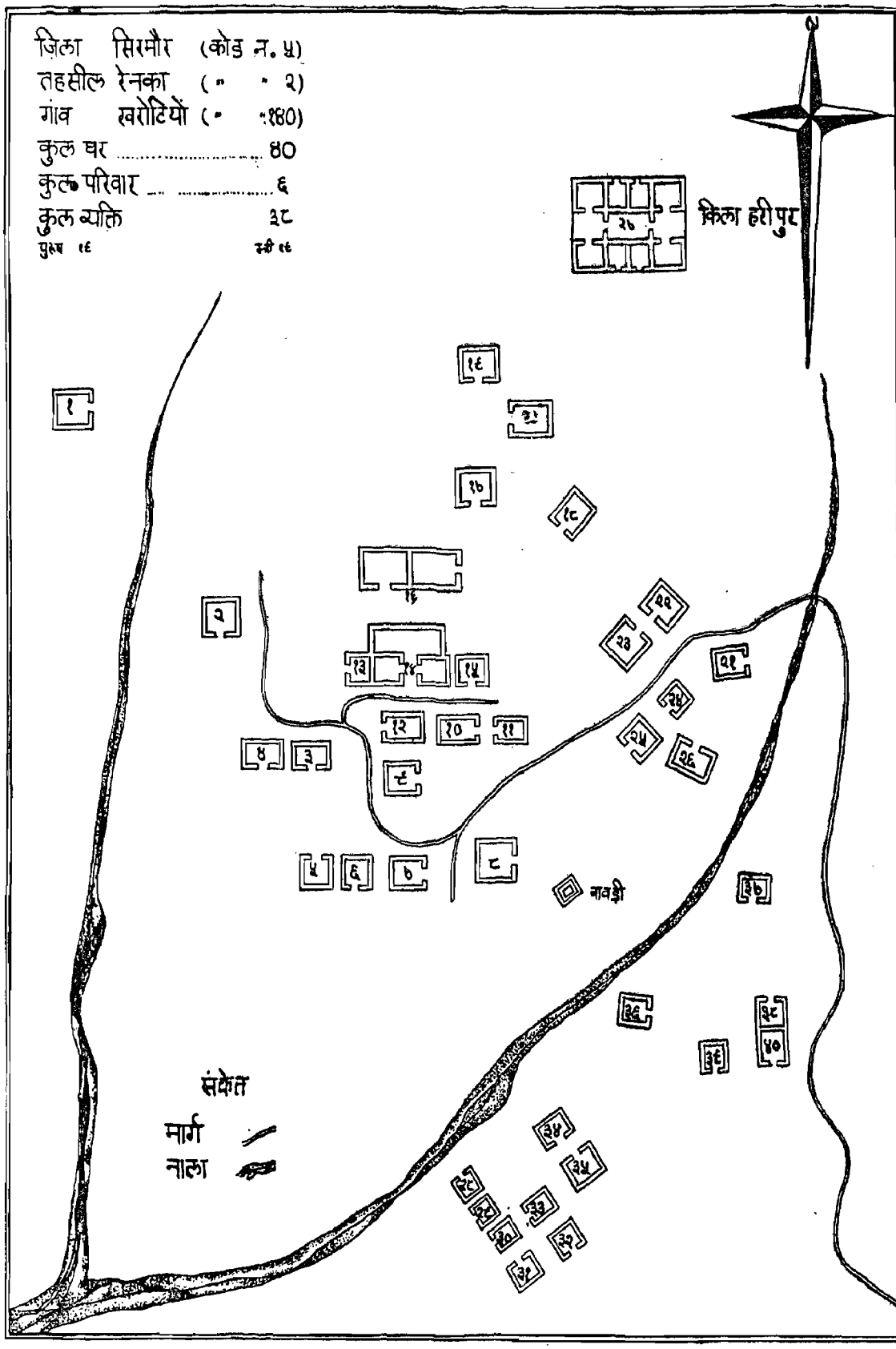
In the case of households with 5 rooms and above the totalling sheet should be in the following form—

Households with 5 rooms and above

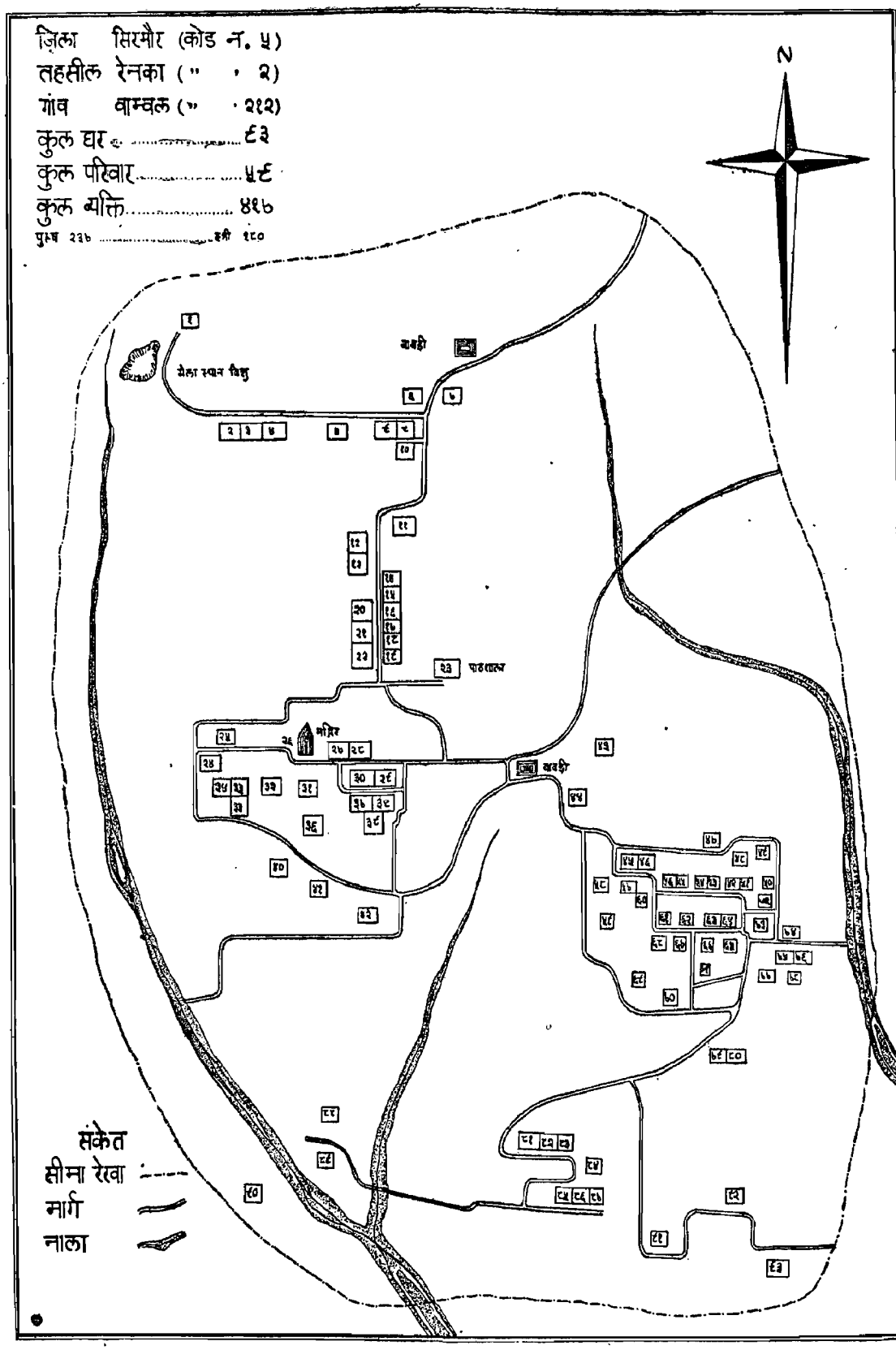
Serial No.	Number of rooms	Number of members	
		M	F
1	2	3	4

You should remember that this is only for sample households and you should take into account those households which are marked with red tick in column 11. You should take first all sample households with no regular room which would have been indicated by 'O' in column 13. In the totalling sheet you should write all the households in the order in which they occur in the House-list and against each write the number of members separately for males and females in columns 2 and 3 from columns 15 and 16 of the House-list. As soon as you have entered the particulars for a household you should put a tick in column 16. When you have entered all the households you should total the number.

You should then take the totalling sheets for households with one room and proceed in the same manner. When you have completed all households with 4 rooms you will be left with only households with 5 rooms and above for which purpose you should use the special totalling sheet already mentioned above. In this case in column 1 you should write the serial number, in column 2 you should write the number of rooms from column 13 of the House-list and in columns 3 and 4 number of males and females in the household from columns 15 and 16 of the House-list. When you have completed all the households with 5 rooms and above you should total the various columns. You should then prepare the Abstract.



cf. 6 PREPARATION OF MAPS - SECTION II - ENUMERATION



6. PREPARATION OF MAPS - SECTION II - ENUMERATION

ANNEXURE IV

STANDARD INDUSTRIAL CLASSIFICATION ADOPTED BY THE GOVERNMENT OF INDIA DECEMBER, 1960

DIVISION 2 AND 3—MANUFACTURING

Major Group (Code)	Description	Minor Group (Code)
20	FOODSTUFFS—	
	Production of rice, atta, flour, etc. by milling, dehusking and processing of crops and foodgrains	200
	Production of sugar and syrup from sugarcane in mills	201
	Production of indigenous sugar, gur from sugar cane or palm juice and production of candy	202
	Production of fruit products such as jam, jelly, sauce and canning and preservation of fruits	203
	Slaughtering, preservation of meat and fish and canning of fish	204
	Production of bread, biscuits, cake and other bakery products	205
	Production of butter, ghee, cheese and other dairy products	206
	Production of edible fats and oils—oil pressing ghani, kolhu (other than hydrogenated oil)	207
	Production of hydrogenated oils (Vanaspati)	208
	Production of other food products such as sweet-meat and condiments, muri, murki, chira, khoi, cocoa, chocolate, toffee, lozenges	209
21	BEVERAGES—	
	Production of distilled spirits, wines, liquor from alcoholic malt, fruits and malts in distillery and brewery	210
	Production of country liquor	211
	Production of indigenous liquor such as toddy, liquor from mahua, palm juice	212
	Production of other liquors not covered above	213
	Production of aerated and mineral water	214
	Production of ice	215
	Production of ice cream	216
	Processing of tea in factories	217
	Processing of coffee in curing works	218
	Production of other beverages	219
22	TOBACCO PRODUCTS—	
	Manufacture of bidi	220
	Manufacture of cigars and cheroots	221
	Manufacture of cigarette and cigarette tobacco	222
	Manufacture of hookah tobacco	223
	Manufacture of snuff	224
	Manufacture of jerda and other chewing tobacco	225
	Manufacture of other tobacco products	226

DIVISION 2 AND 3—MANUFACTURING—*contd.*

Major Group (Code)	Description	Minor Group (Code)
23	TEXTILE—COTTON—	
	Cotton ginning, cleaning, carding, pressing and baling	230
	Cotton spinning (other than in mills)	231
	Cotton spinning and weaving in mills	232
	Cotton dyeing, bleaching	233
	Cotton weaving in power looms	234
	Cotton weaving in handlooms	235
	Manufacturing of khadi textile in handlooms	236
	Printing of cotton textile	237
	Manufacturing of cotton nets	238
	Manufacturing of cotton, cordage, rope and twine	239
24	TEXTILE—JUTE—	
	Jute pressing and baling	240
	Jute spinning and weaving	241
	Dyeing and bleaching of jute	242
	Printing of jute textile	243
	Manufacture of other products like rope, cordage from jute and similar fibre such as hemp, meesta	244
25	TEXTILE—WOOL—	
	Wool baling and pressing	250
	Wool cleaning and processing (scouring)	251
	Wool spinning and weaving in mill	252
	Wool spinning other than in mills	253
	Wool weaving in power loom	254
	Wool weaving in handloom	255
	Embroidery and art work in woollen textile	256
26	TEXTILE—SILK—	
	Spinning and weaving of silk textile in mill	260
	Dying and bleaching of silk	261
	Spinning of silk other than in mills	262
	Weaving of silk textile by power loom	263
	Weaving of silk textile by handloom	264
	Printing of silk textile	265
	Manufacture of silk cordage, rope and twine	266
27	TEXTILE—MISCELLANEOUS—	
	Manufacture of carpet and all other similar type of textile products	270
	Manufacture of hosiery and other knitted fabrics and garments	271
	Embroidery and making of crepe lace and fringes	272
	Making of textile garments including raincoats and headwear	273
	Manufacture of made up textile goods except wearing apparel such as curtains, pillow cases, bedding materials, mattress, textile bags	274

DIVISION 2 AND 3—MANUFACTURING—*contd.*

Major Group (Code)	Description	Minor Group (Code)
27	TEXTILE—MISCELLANEOUS—	
	Manufacture of waterproof textile products such as oil cloth, tarpaulin	275
	Manufacture and recovery of all types of fibres for purposes of padding, wadding and upholstery filling	276
	Manufacture of coir and coir products	277
	Manufacture of umbrellas	278
	Processing and manufacture of textile products not covered above	279
28	MANUFACTURE OF WOOD AND WOODEN PRODUCTS—	
	Sawing and planing of wood	280
	Manufacture of wooden furniture and fixtures	281
	Manufacture of structural wooden goods (including treated timber) such as beams, posts, doors, windows	282
	Manufacture of wooden industrial goods other than transport equipment such as bobbin and similar equipment and fixtures	283
	Manufacture of other wooden products such as utensils, toys artwares	284
	Manufacture of veneer and plywood	285
	Manufacture of plywood products such as tea chest	286
	Manufacture of boxes and packing cases other than plywood	287
	Manufacture of materials from cork, bamboo, cane, leaves and other allied products	288
	Manufacture of other wood and allied products not covered above	289
29	PAPER AND PAPER PRODUCTS—	
	Manufacture of pulp from wood, rags, waste paper and other fibres and the conversion of such pulp into any kind of paper and paper board in mill	290
	Manufacture of pulp from wood, rags, waste paper and other fibres and the conversion of such pulp into any kind of paper and paper board handmade	291
	Manufacture of products, such as paper bags, boxes, cards, envelopes and moulded pulp goods from paper, paper board and pulp	292
30	PRINTING AND PUBLISHING—	
	Printing and publishing of newspapers and periodicals	300
	Printing and publishing of books	301
	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry	302
	All types of binding, stitching, sizing and other allied work connected with binding industry	303
31	LEATHER AND LEATHER PRODUCTS—	
	Curing, tanning and finishing of hides and skins and preparation of finished leather	310
	Manufacture of shoes and other leather footwear	311
	Manufacture of clothing and wearing apparel (except footwear) made of leather and fur	312
	Manufacture of leather products (except those covered by code *Nos. 311, 312*), such as leather upholstery, suitcases, pocket books, cigarette and key cases, purses, saddlery, whip and other articles	313
	Repair of shoes and other leather footwear	314
	Repair of all other leather products except footwear	315

DIVISION 2 AND 3—MANUFACTURING—*contd.*

Major Group (Code)	Description	Minor Group (Code)
32	RUBBER, PETROLEUM AND COAL PRODUCTS—	
	Manufacture of types and tubes	320
	Manufacture of rubber footwear	321
	Manufacture of rubber goods used for industrial purpose	322
	Manufacture of all kinds of other rubber products from natural or synthetic rubber including rubber raincoat	323
	Products of petroleum, kerosene and other petroleum products in petroleum refineries	324
	Production of coaltar and coke in coke oven	326
	Manufacture of other coal and coaltar products not covered elsewhere	323
33	CHEMICALS AND CHEMICAL PRODUCTS—	
	Manufacture of basic industrial chemicals such as acids, alkalis and their salts not elsewhere specified	330
	Manufacture of dyes, paints, colours and varnishes	331
	Manufacture of fertilizers	332
	Manufacture of ammunition, explosives and fire works	333
	Manufacture of matches	334
	Manufacture of medicines, pharmaceutical preparations, perfumes, cosmetics and other toilet preparations except soap	335
	Manufacture of soap and other washing and cleaning compounds	336
	Manufacture of turpentine, synthetic, resin, and plastic products and materials (including synthetic rubber)	337
	Manufacture of common salt	338
	Manufacture of other chemicals and chemical products not covered above (including inedible oils and fats)	339
34	NON-METALLIC MINERAL PRODUCTS OTHER THAN PETROLEUM AND COAL—	
	Manufacture of structural clay products such as bricks, tiles	340
	Manufacture of cement and cement products	341
	Manufacture of lime	342
	Manufacture of structural stone goods, stone dressing and stone crushing	343
	Manufacture of stonewares, other than images	344
	Manufacture of stone images	345
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	Manufacture of asbestos products	347
	Manufacture of mica products	348
35	*Manufacture of earthenware and earthen pottery*	350
	Manufacture of chinaware and crockery	351
	Manufacture of porcelain and its products	352
	Manufacture of glass bangles and beads	353
	Manufacture of glass apparatus	354
	Manufacture of earthen image, busts and statues	355
	Manufacture of earthen toys and artwares except those covered by code No. 355	356
	Manufacture of glass and glass products except optical and photographic lenses and glass products covered above	357
	Manufacture of other non-metallic mineral products not elsewhere specified	359
36	BASIC METALS AND THEIR PRODUCTS EXCEPT MACHINERY AND TRANSPORT EQUIPMENT—	
	Manufacture of iron and steel including smelting, refining, rolling, conversion into basic forms such as billets, blooms, tubes, rods	360
	Manufacture including smelting, refining of nonferrous metals and alloys in basic forms	361

DIVISION 2 AND 3—MANUFACTURING—*concld.*

Major Group (Code)	Description	Minor Group (Code)
36	BASIC METALS AND THEIR PRODUCTS EXCEPT MACHINERY AND TRANSPORT EQUIPMENT—*contd.*	
	Manufacture of armaments	362
	Manufacture of structural steel products such as joist, rail, sheet, plate	363
	Manufacture of iron and steel furniture	364
	Manufacture of brass and bell metal products	365
	Manufacture of aluminium products	366
	Manufacture of metal products (other than of iron brass, bell metal and aluminium) such as tin can	367
	Enamelling, galvanising, plating, (including electroplating) polishing and welding of metal products	368
	Manufacture of sundry hardwares such as G.I. pipe, wire net, bolt, screw, bucket, cutlery (This will also include the manufacture of sundry ferrous engineering products done by jobbing engineering concerns which can not be classified in major groups 36, 37, 38 and 39)	69
37	MACHINERY (ALL KINDS OTHER THAN TRANSPORT) AND ELECTRICAL EQUIPMENT—	
	Manufacture and assembling of machinery (other than electrical) except textile machinery	370
	Manufacture and assembling of prime mover and boilers, other than electrical equipment, such as diesel engines, road rollers, tractors	371
	Manufacture of small machine tools and machine parts	372
	Manufacture of textile machinery and accessories	373
	Manufacture of heavy electrical machinery and equipment such as motors, generators, transformers	374
	Manufacture of electric lamps and fans	375
	Manufacture of insulated wires and cables	376
	Manufacture of all kinds of battery	377
	Manufacture of electronic equipment such as radio, microphone, repairing and servicing of radios	378
	Manufacture of electric machinery and apparatus, appliances not specified above, repairing and servicing of electrical apparatus, heaters, oven, etc.	379
38	TRANSPORT EQUIPMENT—	
	Manufacture, assembly and repairing of locomotives	380
	Manufacture of wagons, coaches, tramways and other rail road equipment other than that covered by code No. 363	381
	Manufacture and assembling of motor vehicles of all types (excepting motor engines)	382
	Manufacture of motor vehicles engines parts and accessories	383
	Repairing and servicing of motor vehicles	384
	Manufacture of bicycles and tricycles and accessories such as saddle, seat frame, gear	385
	Building and repairing of water transport equipment such as ships, boats and manufacture of marine engines	386
	Manufacture and repair of air transport equipment including aeroplanes, aeroengines	387
	Repairing of bicycles and tricycles	388
	Manufacture of other transport equipment not covered above such as animal drawn and hand-drawn vehicles	389
39	MISCELLANEOUS MANUFACTURING INDUSTRIES—	
	Manufacture of optical instruments and lenses, ophthalmic goods and photographic equipment and supplies	390
	Manufacture of scientific, medical and surgical instruments and equipment and supplies	391
	Assembling and repairing of watches and clocks	392
	Manufacture of jewellery, silverware and wares using gold and other precious metals	393
	Manufacture and tuning of musical instruments	394
	Manufacture of stationery articles not covered elsewhere such as pencil, penholders, fountain pen	395
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5 Presidency Book Supplies, 8, Pycrofts Road, Triplicane . . . . . (Reg.)
6 P. Vardhachary & Co., 8, Linghi Chetty Street (Reg.)
7 Palani Parchuram, 3, Pycrofts Road, Triplicane (Reg.)
8 NCBH Private Ltd., 199, Mount Road . (Rest.)
9 V. Sadanand, The Personal Bookshop, 10, Congress Building, 111, Mount Road . . (Rest.)

MADURAI—
1 Oriental Book House, 258, West Masi Street (Reg.)
2 Vivekananda Press, 48, West Masi Street . (Reg.)

MANDYA SUGAR TOWN—K.N. Narimhe Gowda & Sons . . . . . (Rest.)

MANGALORE—U.R. Shenoye Sons, Car Street, P. Box 128 . . . . . (Reg.)

MANJESHWAR—Mukenda Krishna Nayak . (Rest.)

MATHURA—Rath & Co., Tilohi Building, Bengali Ghat . . . . . (Rest.)

MEERUT—
1 Prakash Educational Stores, Subhas Bazar (Reg.)
2 Hind Chitra Press, West Kutchery Road . (Reg.)
3 Loyal Book Depot, Chhipi Tank . . (Reg.)
4 Bharat Educational Stores, Chhippi Tank . (Rest.)
5 Universal Book Depot, Booksellers & News Agents . . . . . (Rest.)

MONGHYR—Anusandhan, Minerva Press Building . . . . . (Rest.)

MUSSOORIE—
1 Cambridge Book Depot., The Mall . . (Rest.)
2 Hind Traders . . . . . (Rest.)

MUZAFFARNAGAR—
1 Mittal & Co., 85-C, New Mandi . . . (Rest.)
2 B.S. Jain & Co., 71, Abupura . . . (Rest.)

MUZAFFARPUR—
1 Scientific & Educational Supply Syndicate . (Reg.)
2 Legal Corner, Tikmanio House, Amgola Road (Rest.)
3 Tirhut Book Depot . . . . . (Rest.)

MYSORE—
1 H. Venkataramiah & Sons, New Statue Circle (Reg.)
2 Peoples Book House, Opp. Jagan Mohan Palace (Reg.)
3 Geeta Book House, Booksellers & Publishers Krishnamurthipuram . . . . (Rest.)
4 News Paper House, Lansdowne Building . (Rest.)
5 Indian Mercantile Corporation, Toy Palace Ramvilas . . . . . (Rest.)

NADIAD—R.S. Desay, Station Road . . (Rest.)

NAGPUR—
1 Supdt. Govt. Press & Book Depot . .
2 Western Book Depot, Residency Road . (Reg.)
3 The Asstt. Secretary, Mineral Industry Association. Mineral House . . . . (Rest.)

NAINITAL—Coural Book Depot, Bara Bazar . (Rest.)

NANDED—
1 Book Centre, College Law General Books, Station Road . . . . . (Rest.)
2 Hindustan General Stores, Paper & Stationery Merchants P.B. No. 51 . . . (Rest.)
3 Sanjoy Book Agency, Vazirabad . . (Rest.)

NEW DELHI—
1 Amrit Book Co., Connaught Circus . . (Reg.)
2 Bhawani & Sons, 8F, Connaught Place . (Reg.)
3 Central News Agency, 23/90 Connaught Circus (Reg.)
4 Empire Book Depot, 278, Aliganj . . (Reg.)
5 English Book Stores, 7-L, Connaught Circus P.B.O. 328 . . . . . (Reg.)
6 Faqir Chand & Sons, 15-A Khan Market . (Reg.)
7 Jain Book Agency, C-9, Prem House, Connaught Place . . . . . (Reg.)
8 Oxford Book & Stationery Co., Scindia House (Reg.)
9 Ram Krishna & Sons (of Lahore) 16/B, Connaught Place . . . . . (Reg.)
10 Sikh Publishing House, 7-C, Connaught Place (Reg.)
11 Suneja Book Centre, 24/90 Connaught Circus (Reg.
12 United Book Agency, 31, Municipal Market, Connaught Circus . . . . . (Reg.)
13 Jayana Book Depot, Chhaparwala Kuan Karol Bagh . . . . . (Reg.)
14 Navayug Traders, Desh Bandhu Gupta Road, Dev Nagar . . . . . (Reg.)
15 Saraswati Book Depot, 15, Lady Harding Road (Reg.)
16 The Secretary, Indian Met. Society, Lodi Road . . . . . (Reg.)
17 New Book Depot, Latest Books, Periodicals, Sty. & Novelles, P.B. 96, Connaught Place . (Reg.)
18 Mehra Brothers, 50-G, Kalkaji . . . (Reg.)
19 Luxmi Book Stores, 42, Janpath . . (Rest.)
20 Hindi Book House, 82, Janpath . . (Rest.)
21 People Publishing House (P.) Ltd., Rani Jhansi Road . . . . . (Reg.)
22 R.K. Publishers, 23, Beadon Pura, Karol Bagh (Rest.)
23 Sharma Bros., 17, New Market, Moti Nagar (Reg.)
24 Aapki Dukan, 5/5777, Dev Nagar . . (Rest.)
25 Sarvodaya Service, 66A-I, Rohtak Road, P.B. 2521 . . . . . (Rest.)
26 H. Chandson, P.B. No. 3034 . . . (Rest.)
27 The Secretary, Federation of Association of Small Industry of India, 23-B/2, Rohtak Road . . . . . (Rest.)
28 Standard Booksellers & Stationers, Palam Enclave . . . . . (Rest.)
29 Lakshmi Book Depot, 57, Regarpura . (Rest.)
30 Sant Ram Booksellers, 16, New Municipal Market, Lody Colony . . . . . (Rest.)

PANJIM—
1 Singhals Book House P.O.B. 70 Near the Church . . . . . (Rest.)
2 Sagoon Gaydev Dhoud, Booksellers, 5-7 Rua, 3 Ide Jameria . . . . . (Rest.)

PATHANKOT—The Krishna Book Depot, Main Bazar . . . . . (Rest.)

PATIALA —
1 Supdt. Bhupendra State Press . . .
2 Jain & Co., 17, Shah Nashia Bazar . . (Reg.)

PATNA—
1 Supdt. Govt. Printing (Bihar) . . . (Reg.)
2 J.N.P. Agarwal & Co., Padri-Ki-Haveli Raghunath Bhawan . . . . (Reg.)
3 Luxmi Trading Co., Padri-ki-Haveli . . (Reg.)
4 Moti Lal Banarsi Dass, Bankipore . . (Reg.)
5 Bengal Law House, Chowhatta . . . (Reg.)
PITHORAGARH—Maniram Panetha and Sons (Rest.)
PONDICHERRY—M/s Honesty Book House, 9 Rue Duplix . . . . . (R.)
POONA—
1 Deccan Book Stall, Deccan Gymkhana . (Reg.)
2 Imperial Book Depot, 266, M.G. Road . (Reg.)
3 International Book Service, Deccan Gymkhana . . . . . (Reg.)
4 Raka Book Agency, Opp. Natu's Chawl, Near Appa Balwant Chowk . . . (Reg.)
5 Utility Book Depot, 1339, Shivaji Nagar . (Rest.)
PUDUKOTTAI—Shri P.N. Swaminathan Sivam & Co., East Main Road . . . . (Rest.)
RAJKOT—Mohan Lal Dossabhai Shah, Booksellers and Sub-Agents . . . . (Reg.)
RANCHI—
1 Crown Book Depot, Upper Bazar . . (Reg.)
2 Pustak Mahal, Upper Bazar . . . (Rest.)
REWA—Supdt., Govt. State Emporium V.P. .
ROURKELA—The Rourkela Review . . (Rest.)
SAHARANPUR—Chandra Bharata Pustak Bhandar Court Road . . . . . (Rest.)
SECUNDERABAD—Hindustan Diary Publishers Market Street . . . . . (Reg.)
SILCHAR—Shri Nishitto Sen Nazirpatti . . (Rest.)
SIMLA—
1 Depty. Contrl. Ptg. & St. Himachal Pradesh Govt. . . . . .
2 Minerva Book Shop, The Mall . . . (Reg.)
3 The New Book Depot, 79, The Mall . (Reg.)
SINNAR—Shri N.N. Jakhadi, Agent, Times of India, Sinnar (Nasik) . . . . (Rest.)
SHILLONG—
1 The Officer-in-Charge, Assam Govt. B.D.
2 Chapla Book, Stall, P.B. No. 1 . . (Rest.)
SONEPAT—United Book Agency . . . (Reg.)
SRINAGAR—The Kashmir Bookshop, Residency Road . . . . . (Reg.)
SURAT—Shri Gajanan Pustakalaya, Tower Road . . . . . (Reg.)
TIRUCHIRAPALLI—
1 Kalpana Publishers, Wosiur . . . (Reg.)
2 S. Krishnaswami & Co., 35, Subhash Chander Bose Road . . . . . (Reg.)
3 Palamiappa Bros . . . . . (Rest.)
TRIVANDRUM—
1 International Book Depot, Main Road . (Reg.)
2 Reddear Press & Book Depot, P.B. No. 4 . (Rest.)
TUTICORIN—Shri K. Thiagarajan, 10-C, French Chapal Road . . . . . (Rest.)
UDAIPUR—
1 Jagdish & Co., Inside Surajapole . . (Rest.)
2 Book Centre, Maharana Bhopal Consumers' Co-op. Society Ltd. . . . . (Rest.)
UJJAIN—Manak Chand Book Depot Sati Gate (Rest.)
VARANASI—
1 Students Friends & Co., Lanka . . . (Rest.)
2 Chowkhamba Sanskrit Series Office, Gopal Mandir Road, P.B. 8. . . . . (Reg.)
3 Glob Book Centre . . . . . (Rest.)
4 Kohinoor Stores, University Road, Lanka . (Reg.)
5 B.H.U. Book Depot . . . . . (Rest.)
VELLORE—A. Venkatasubhan, Law Book sellers (Reg.)
VIJAYAWADA—The Book & Review Centre, Eluru Road, Governpet . . . . . (Rest.)
VISAKHAPATNAM—
1 Gupta Brothers, Vizia Building . . (Reg.)
2 Book Centre, 11-79, Main Road . . . (Reg.)
3 The Secy. Andhra University, General Co-op. Stores Ltd. . . . . (Rest.)
VIZIANAGARAM—Sarda & Co. . . . (Rest.)
WARDHA—Swarajeya Bhandar, Bhorji Market (Reg.)

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1 Govt. of India Kitab Mahal, Janpath, Opp. India Coffee House, New Delhi.
2 Govt. of India Book Depot, 8, Hastings Street, Calcutta.
3 High Commissioner for India in London, India House, London, W.C. 2.

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2 Gahlot Bros., K.E.M. Road, Bikaner.
3 Higginbothams & Co. Ltd., Mount Road, Madras.
4 M. Gulab Singh & Sons Private Ltd., Mathura Road, New Delhi.

Foreign

1 S/S. Education Enterprise Private Ltd., Kathmandu (Nepal).
2 S/S. Aktie Bologat, C.E. Fritzes Kungl, Hovobokhandel, Fredsgation-2 Box 1656, Stockholm-16 (Sweden).
3 Reise-und Verkehsaverlag Stuttgart, Post 730, Gutenbergstra 21, Stuttgart No. 11245, Stuttgart den (Germany West).
4 Shri Iswar Subramanyam 452, Reversite Driv Apt. 6, New York, 27 NWY.
5 The Proprietor, Book Centre, Lakshmi Mansions, 49, The Mall, Lahore (Pakistan).

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