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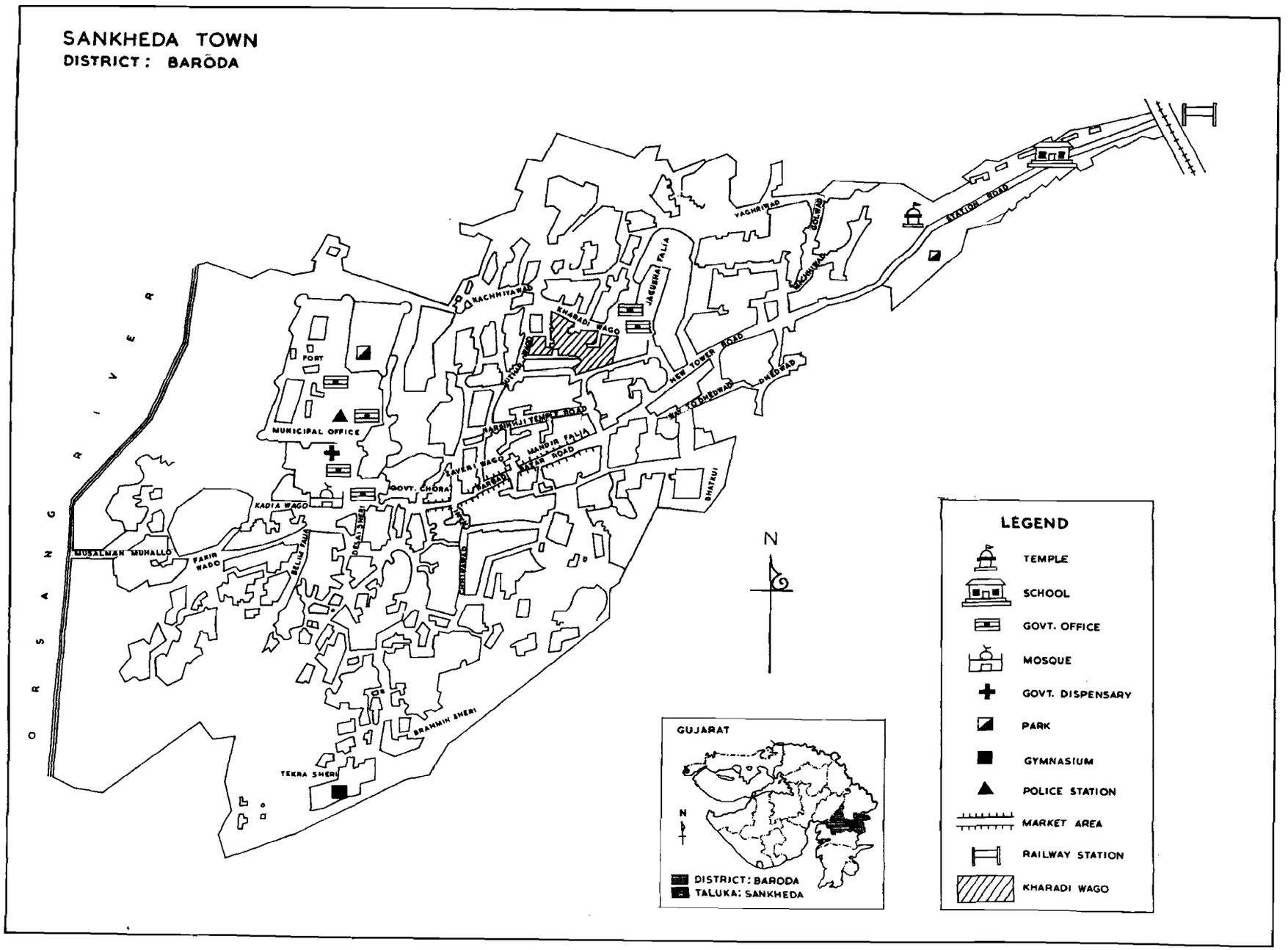
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Superintendent of Census Operations, Gujarat

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FOREWORD

One of the first steps to be taken in the First Five Year Plan was the establishment of six boards for the promotion of handicrafts, village and small industries : (1) The Khadi and Village Industries Board; (2) The All-India Handicrafts Board; (3) The All-India Handloom Board; (4) The Central Silk Board; (5) The Coir Board; and (6) The Small Industries Board.

The rapid expansion of the activities of these Boards which concentrated not only on production and techniques, but also on organisation, extension, credit, marketing, and export, consolidated and enlarged the position that the household industries sector had so long enjoyed in the nation's economic life. It was this fact that forced itself upon the preparations for the 1961 Census and demanded that household industry should be separately investigated for a proper accounting of the nation's manpower, resources and its specific contribution to the national income. The 1961 Census therefore asked a special series of questions on household industry, input of family and hired labour, and the periods over which household industry is conducted. It was felt, however, that an enumeration of the total number of establishments and their industrial classification would be incomplete without a proper description of what they produce and how they produce. It was important to make an assessment of the limits of rigidity within which traditional skill operates. This could be obtained by studying the caste, occupational, social and economic stratifications, the limitations of credit and marketing facilities, the dominance of custom over contract, the persistence of traditional tools and design forms, the physical limitations of transport, communication and mobility, the inability to adopt new lines or adapt to changing circumstances. It was important also to make an assessment of the limits of flexibility that traditional skill is capable of, because the transformation of traditional skills to modern skills is easier said than done and a thorough study may well reveal that it is perhaps cheaper from the social point of view to develop industrial skills from scratch than to try to graft traditional skill on alien soil. A rather tragic case of failure to make what would on the face of it seem a minor adjustment cast its heavy shadow on the nation when it was discovered that goldsmiths used to working on 22-carat gold all their lives felt sadly helpless when asked to work on 14-carat, so narrow and unadaptable were the limits of their skill and proficiency and so rudimentary the tools and equipment with which they and their forefathers had worked. This fiscal accident revealed that tools are even more important than skills.

An early opportunity was therefore taken in February 1960 to suggest to State Census Superintendents, that the Census provided a unique opportunity for conducting and documenting a survey of this kind. As such a survey was quite outside the usual terms of reference of Census work it was thought prudent cautiously to feel one's way with the thin end of the wedge of what would, it was hoped, prove to be an exciting pursuit. It was therefore considered the wiser course to wait until the State Census Offices felt so interested that they would no longer take the inquiry as an imposition but rather want to do it on their own and ask for the necessary staff and equipment. This office, too, in its turn, could make use of the interval to organise and elaborate the design of inquiry in order to feed the appetite that work in progress would serve to whet. Because it was a labour of love, sought to be unobtrusively thrust on one's colleagues and because the inquiry itself was so vast that normally it would demand in any country as big a set-up; if separately established, as the Census organisation itself and that over a much longer period, and because it was almost a poineer venture, nothing like it having been undertaken since the 1880's, it was decided to move towards a build-up by stages, to let the inquiry unfold itself only as fast as my colleagues chose to ask for more.

Thus, in the first circular of 18 February, 1960, it was suggested that the inquiry might be conducted through the agency of the Development Department, the State Director of Industries, the Director of Tribal Welfare, the Registrar of Cooperative Societies, and other organisations concerned with the promotion of household industry. A draft questionnaire containing 30 questions in three parts was recommended for canvassing. It was suggested that information on this questionnaire, village by village and area by area, might either be obtained through the regular departmental channels of the State Government, or through the newly set up Census organisation, or through the hierarchy of the newly-created Panchayats. Stress was laid on the need of photographic documentation and illustration of designs, shapes and forms not only by photographs but with the help of line drawings or sketches together with a full description of the materials used.

Almost the whole of 1960 and the first half of 1961 were spent in organising and taking the Census count, although several States even during this period had not allowed the grass to grow under their feet but made exploratory studies and decided in their minds how the inquiry should be organised. A series of regional conferences held in Trivandrum, Darjeeling and Srinagar in May and June 1961 revealed much enthusiasm among State Superintendents to proceed with the survey, but the need of separate staff and equipment was felt at the same time as the realization dawned that this was much too serious an inquiry to be treated casually and left to be achieved through the usual administrative channels and State Census Superintendents proceeded to augment their staff with qualified research and investigating officers, technical persons, photographers, artists, draughtsmen and other trained personnel.

This was followed by rapid progress in coordination between the Central and State Census Offices in the matter of exchange and processing of information, documentation and investigation, of assisting each other with trained investigators and editing and finalizing drafts, layouts, presentations.

Mention has been made of a questionnaire in three parts and thirty questions. The idea was to make a beginning with empirical, analytical studies based on a structured questionnaire which would replace general descriptive accounts that had obtained so far. The primary aim was to obtain a picture as much of the artisan himself as of his craft, to obtain a perspective of the artisan and his craft in his social and economic setting, the extent to which tradition bound him and the winds of change ruffled him, the extent of his mobility and immobility, the conditions of market, credit, new contacts and designs in which he operated, the frame of new as well as traditional producer-customer relationships in which he still worked, and how far he was ready to pierce his own caste-tribe socio-economic cocoon and make a break through to new opportunities promised by the Five Year Plans. The aim was to hold up the mirror to hereditary skills struggling with the dialectics of tradition and change.

Thus the first part of the questionnaire, purporting to be a village schedule, sought to take account of the size and population of the village, its remoteness from a proximity to centres of trade and commerce, in short, the degree of isolation in which the artisan worked, and the relative strengths of various communities in the village which would afford clues to social interdependence and the prevalence of the *jajmani* system. The second part was devoted to artisan communities in the village: the several castes of artisans, the number of families in each, the total number of workers, males and females, the extent of cooperative activity among them, the extent of dependence upon employers and of wage of contract labour. There were questions on the raw materials used, the means of their procurement, the possible extent of dependence on others for raw materials, the extent of the material that artisans can handle within the limits of their skill. There were other questions on the exchange and flow of designs, the use of colours, the ancientness of the craft and legends associated, the colonization of the craftsman, on patrons and customers and on social and economic contact with the world inside and outside the village. There

were specific questions on the workshop itself and particularly the tools and the source of supply of these tools, because it was felt that tools decide everything and are the surest index of inertness or flexibility. Separate blocks of questions were designed to bring out the ramifications of artisan castes throughout the country and the ways they sustained themselves, the type of clientele they catered for, the extent to which they operated on money or barter or service, how specialized their craft was, how wide the market, how dependent they were on their socially preordained clientele and how restricted the latter was by the seemingly unalterable laws of social custom; the extent to which they could operate in the open market, the range of their wares and the sizes to which these were ordinarily restricted either by the limits of their own skill or the length of their customer's purse-strings. Inquiries were to be made about the operation of middlemen and of cooperative societies, the people who gave new designs and demanded new products. Finally the several stages of production of the articles themselves were to be fully described including the final and finishing stage and a list of very skilled craftsmen of each community was to be furnished. The third part was devoted specially to tribal communities and designed to find out how self-sufficient or dependent they were on the production and supply of manufactured goods, the extent to which they produced themselves or depended on others, their contacts with other communities and the specific forms of production and commerce through which these contacts were maintained.

Particular emphasis was laid on the need of obtaining as full an account as possible of unique regional design differentiations as they reflect not only the very culture patterns of the country but the persistent inventive faculties of the craftsmen. The importance was emphasised of giving full attention to articles of domestic use as it is in their shapes, designs and forms that the culture patterns and traditional skills persist most tenaciously.

Simultaneously with the investigation of specific crafts, State Superintendents proceeded to compile a comprehensive list of all types of handicrafts obtaining in their State. As for the specific crafts to be investigated several tables were devised from the structured questionnaire in order to guide investigators toward pointed observation and analysis, to enable them to write, not just general descriptions, but with their eye on the object and on facts.

Investigations conducted between September 1961 and May 1962, including a study group of all States and the Social Studies Division in December 1961 at Delhi, stimulated many of the States into going in for a much enlarged schedule. The revised village schedule itself, the counterpart of the first part of the February 1960 schedule, contained 19 large sections containing elaborate and probing questions. The Family Schedule for practising artisan families similarly contained 19 main questions each subdivided into many questions. The Family Schedule for non-practising artisan families contained 21 questions. There were schedules for the study of cooperative societies, of production-*cum*-training centres, and of consumer's preference. This enlarged schedule of investigation, in the formulation of which the States themselves actively assisted, was greatly welcomed. The surveys that will appear in this series will therefore consist of two main types : (a) those based on the original short schedule and (b) those based on the much enlarged schedule. In some cases Census Superintendents felt enthused enough to scrap the work based on the original short schedule and do it over again on the enlarged schedule. In the meantime much experience was gained on the analysis of facts and figures to clothe each observation with plenty of authentic information so that the reader could make his own judgement instead of being expected to see all the time through another pair of eyes.

This programme of survey of handicrafts and household industries has been fortified by several ancillary surveys, each one of which would deserve major attention. Along with the survey a compilation has been made of all handicraft centres in each State and an inventory prepared of skilled craftsmen. Photographic and other documentation has been built up to constitute what may now be regarded as the

most considerable repository in the country. Elaborate and accurate maps of craft centres in taluks, tehsils and districts are either ready or under preparation. A full census of all fairs and festivals, weekly hats and markets, throughout India, has been taken and is being published for the first time. Andhra Pradesh has embarked upon a project of chronicling the social and religious antiquity and uniqueness of every fair and festival. A separate volume will be devoted to each district which promises to be of the utmost value to sociologists and orientalists. A full and complete inventory, replete with sketches and measurements of every object, has been prepared of exhibits in museums of tribal crafts in India. There has been a fairly satisfactory survey of houses and buildings, indigenous architectual designs and use of local building material of the whole country. All this has been entirely a labour of love, patiently organised and executed under great strain and in disregard of health and comfort, for which I take this opportunity of expressing my appreciation and grateful thanks to my colleagues.

NEW DELHI,
JULY 30, 1964.

ASOK MITRA
Registrar General, India.

PREFACE

Handicrafts have always played an important part in the life of the people of this land. The erstwhile economic structure of the country was based primarily on agriculture supplemented by handicrafts worked either as whole time or part time economic activity. Besides producing articles of utility, crafts and arts of India had acquired great fame and popularity for their artistic excellence, for which Gujarat has been well-known in the country and abroad since ages. A special study of the selected crafts of the State was, therefore, undertaken along with the 1961 Census to find out what they were in the past and are capable of in the present.

This monograph reviews the unique and unparalleled art of the golden lacquer work of Sankheda famous for its wooden furniture, cradles and other articles of utility. It is one of the crafts selected for intensive study besides a number of others taken up for general study. The earlier publications describe

(i) Agate Industry of Cambay,
(ii) Wood Carving of Gujarat,
(iii) Patara Making at Bhavnagar,
(iv) Ivory Work of Mahuva,
(v) Padlock Making at Sarva,
(vi) Scale Making of Savarkundla,
(vii) Perfumery at Palanpur,
(viii) Crochet Work of Jamnagar,
(ix) Sujani Weaving of Broach,
(x) Soap Making at Kapadvanj,
(xi) Mashru Weaving of Patan,
(xii) Glass Work at Kapadvanj and,
(xiii) Jari Industry of Surat.

Besides the field staff and other members of the Census Department who have participated in this survey, I must acknowledge the useful comments offered by Dr. Roy Burman, Officer on Special Duty, while going through the draft monograph. I am also grateful to Shri Asok Mitra, Registrar General and Census Commissioner, India, for his valuable guidance in the organisation of handicrafts survey in Gujarat.

R. K. TRIVEDI,
Superintendent of Census Operations,
Gujarat.

AHMEDABAD,
October 12, 1968.

SECTION I

INTRODUCTION

Introduction

I.1 Lac and its uses seem to have been known to the Indians since very old times. The term 'lac' called *lakh* in Gujarati appears to have been derived from the Sanskrit word *laksha*, which means the hundred thousand. It suggests that a large number of insects are involved in its production. A small chapter entitled *laksha* (Sukta No. 5 of the fifth book) in the Atharva Veda describes lac insect, its habits and usefulness (for details see Appendix I). The *palas* (*Butea frondosa; syn.; Monosperma*) was known in the Vedic age by the name of *lakshataru* or lac tree.

I.2 There is also a mention in the epic of Mahabharat that *Jadugrih* or *Lakshagrih*, i.e., a palace of lac was built by Purochak, an architect of Kauravas for killing Pandavas by setting fire to it. All these evidences lead us to believe that lac was applied in various arts and crafts in ancient India. The crimson-red dye obtained by washing the crude lac was extensively used in dyeing wool, silk and leather. It was also used in preparation of medicines and to colour palms and feet by Hindu women. The great Sanskrit poet Kalidas has also referred to lac in Abhijnanashakuntalam (IV.5) as follows:

क्षौमं केनचिदिन्दुपाण्डुतरुणा माङ्गल्यमाविष्कृतम्
निष्ठ्यूतश्चरणोपभोगसुलभो लाक्षारसः केनचित् ।

An auspicious silk garment, white like the moon was exhibited by a certain tree. Lac-dye, suited for the use of the feet, was exuded by another.

I.3 Because of its plastic properties, it had entered in the various fields of arts and crafts, since earliest times. The ancient carpenter, turner, shoe-maker, silver and coppersmiths and jewellers applied lac to their products. Its use is found even today in all these crafts to a varying extent. The following paragraph describes the various uses of lac by the craftsmen.

The carpenter, cartwright, turner, and shoemaker uses it in one form or the other in every day life. Lac is also used to plug up and conceal blemishes and defects and as a varnish with coloured lac where colour is desired. The silver and coppersmiths employ lac as a resist bed upon which they hammer out or punch certain of their wares. Jewellers fill up hollow gold and silver ornament with it, or fix the stones in it. Coloured ornamentation on copper, brasswares, and ivory are beautifully made by lac. Lapidaries construct grindstones of lac fused with sand. Lac is also used to fix blades of knives and swords with hafts. Potters, bookbinders, and makers of smoking pipes all need lac as a varnish or a stiffening material. Poor people and village folk get most of their ornaments prepared almost entirely from lac. The other uses of lac is in bangles and bracelets, and as inlaying material for coloured ornamentations on brasswares.[1]

Written Records and Travellers' Accounts

I.4 The earlier reference regarding the use of lac as decorative-*cum*-utilitarian material is found in *Ain-i-Akbari* written in 1590 during Akbar's regime. According to this account, "during Akbar's time, and even earlier, furnitures of palaces were characterised by much beauty and grace, as magnificent bedsteads and thrones, chariots, chests, all elaborately carved, often mounted and inlaid with gold jewels, and ivory, always shellacked and polished, were in abundance. A few of these examples are still in existence in some of the world's famous museums".[2]

1. *Marg*, A Magazine of the Arts, Vol. XIX, No. 3, June, p. 4, 1966
2. *Ibid.*

I.5 During the 16th century, the king of Portugal had sent a Dutchman named John Huyghen Van Linschoten on a scientific mission to India. His report published in 1596 gives an interesting account of the use of lac in the manufacture of lacquerwares and such other ornamental wares. It is one of the earliest records by the European writers on the subject. The report mentions that lac was used throughout the country in the manufacture of utilitarian and decorative articles. A brief account reproduced below will be found interesting.

> "'Lacke' by the Malabares, Bengalres, and Decaniins, is called Assi, by the Moors Lac : the men of Pegu (where the best is found, and most trafiqued withall) doe call it treck, deale much therewith by carrying it into the Island of Sumatra (in time past called Taprobana) and then they exchange it for Pepper, and from thence it is carried to the Redde Sea, to Persia and Arabia, whereupon the Arabians, Persians and Turks call it Lac Sumutri, that Lac of Sumatra, because it is brought from thence into their countries....."
>
> "Thence they dresse their bedsteddes withall, that is to say, in turning of the woode, they take a peece of Lac of what colour they will, and as they turn it when it commeth to its fashion they spread the Lac upon the whole peece of woode, which presently with the heat of turning (melteth the waxe) so that it entreth into the crestes and cleaveth unto it, about the thickness of a man's naile: then they burnish it (over) with a broad straw or dry Rushes so (cunningly) that all the woode is covered withall, and it shineth like glasse, most pleasant to behold, and continueth as long as the woode being well looked into : in this sort they cover all kinde of householde stuffe in India, as bedsteddes, chaires, stooles, etc., and all their turned wood worke which is wonderful common and much used throughout all India, the fayrest workmanshippe thereof commeth from China, as it may be seene from all the things that come from thence, as desks, Targets, Tables, Cupboards, Boxes, and a thousand such like thinges, that are all covered and wrought with Lac of all colours and fashions so that it maketh men to wonder at the beautie and brightness of the colour which is altogether Lac: They likewise use Lac to fill their Golde and Silver workes, that is to say haftes of knives, and other things, which they make very fayre outwardly of Silver, and inwardly full of Lac. The Indians likewise are so cunning, that they make Rings of Gold, which (to man's sight) seem (very) fayre and bright, as though they were all massy of Gold, inside they are hollow and stopt with Lac, and cannot be perceived, unless a man bee advertised (thereof)."[1]

SIR GEORGE WATT

I.6 A detailed account of lac and its uses has been given by Sir George Watt in his famous *Dictionary of Economic Products of India* written in the beginning of the 20th century. Describing the uses of lac, he states that "lac enters into the agricultural, commercial, artistic, manufacturing, domestic, and sacred feelings and enterprises of the people of India to an extent hardly appreciated by the ordinary observer."[2] An alround use of lac in India at the beginning of the current century is evident from the following :

> "In India lac is dissolved in native spirits and coloured, in this form it is used as a varnish for carpentry and furniture; mixed with sulphur and some colouring agent, it is formed into the sticks, *batti*, like sealing wax, which are used by the toy-makers to coat their wooden wares. In Europe it is largely made into *sealing wax* and dissolved in spirits, it forms *spirit varnish*. It is made into *cement* and into lithographer's ink, and is used to stiffen hats and other articles constructed of felt ..... The natives of India from remote times have used lac-dye not only for textile

1. *Marg*, A Magazine of the Arts, Vol. XIX, No. 3, June, p. 4, 1966
2. *Ibid*, p. 5

purposes but as a pigment. It is by them largely used for colouring leather and in wool and silk dyeing, although aniline has affected the demand very seriously. The colour is not so bright as that derived from cochineal, but it is more intense, and has the reputation of being less easily affected by perspiration. Mr. J. E. O'Conor has written a special pamphlet on Lac, which contains very nearly all that is known up to date. Dr. Mc Cann (*Dyes and Tans of Bengal*, 49-66) gives details regarding the dye in Bengal, and Sir E. C. Buck (*Dyes and Tans, N.W.P.* 24) furnishes information regarding its use in the North-West Provinces. Owing to the existence of the resinous matter mechanically mixed with the dye, lac is not so easily worked as cochineal. All the reactions and processes we have already discussed under cochineal are, however, applicable with slight modifications to this colouring agent. Taking advantage of the properties of both dyes, lac is often combined with cochineal."[1]

ANTIQUITY OF LAC IN OTHER COUNTRIES

I.7 The lac varnish of India preceded the Chinese or Japanese 'Lacquer' in making its appearance in Europe. India, therefore, must have been the home of lacquer work based on lac. In China the craft appears to be in existence since Ming period as can be seen from the following :

"The use of lacquer in China goes back traditionally to legendary times. A late Ming manuscript, the Hsui-shih-lu, states that it was first employed for writing on bamboo slips, then for utensils of food made of black lacquer, and subsequently for vessels for ceremonial use of black with red interiors. During the Chou dynasty (1122–255 B. C.) it served for the decoration of carriages, harness, bows and arrows, etc., and was the subject of official regulations, being accepted also in payment of taxes. At this time, gold and colours are said to have come into use. About the 2nd century B. C. buildings were decorated with lacquer and musical instruments are similarly described. Under the Han dynasty (206 B. C.–25 A.D.) further development took place and pot-covers of paper, covered with lacquer, were found in 1910 by Ryuzo Torii near Port Arthur which are definitely attributed to this period..... Under the Sung dynasty (960 – 1279 A.D.), the industry further developed and the use of gold and silver lacquer in the utensils made for the palace is particularly recorded..... The first and, perhaps, the greatest of the Manchu emperors, K'ang Hsi (1662–1723 A. D.), revived it in 1680 A. D., when he established, in the precincts of the palace of Peking, a series of 27 workshops for artistic handicrafts. Carved lacquer was, however, also made at Canton, Tongking, Soochow and Foochow, and the Jesuit father, Louis le Comte, who arrived in China in 1687, gives a good account of the flourishing state of the industry at that time. In this connection it is worth noting that the period of K'ang Hsi is that which saw the first considerable importation of lacquer-ware (and other objects of industrial art) into Europe. The consequent development of imitation lacquer applied to furniture, etc., which, during the reigns of William and Mary and Anne, had so extended a vogue, was one of the conspicuous features of the Chinoiserie craze of that time..... In technique the K'ang Hsi ware shows an advance and is generally free from the small cracks too often found to have developed in the Ming products. The perfection of this quality, apart from other considerations, is found in the lacquer-ware of Ch'ien Lung (1736–96 A.D.), a devoted admirer of this branch of industrial art, who employed it on a large scale for the furniture and fittings of his palaces, for ceremonial and commemorative gifts and other purposes. The workmanship of objects made under his auspices is brilliant in the extreme, and ranks with the finest products of a nation whose mere craftsmanship has been almost unrivalled. But the colour is hard compared with earlier work, and the design tends rather to a somewhat stereotyped formalism. Still, one can hardly call the 18th century a period of decadence in

1. WATT, SIR, GEORGE, *A Dictionary of the Economic Products of India*, Vol. II, p. 412, 1889

the industrial arts of China—the superb execution of its productions, a characteristic which will always, and justly, command admiration, redeems it from adverse criticism. The downward course began in the 19th century, with loss of originality and a falling-off, due to adulteration, in the quality of the material. What was left of the imperial factories was burnt in 1869, and though carved red lacquer was made after that date, the industry had already ceased to have artistic importance."[1]

"In Japan when the Kyoto became the seat of the imperial Government lacquer work developed into a fine art. In Japan lacquer work was developed in Kamakura period (1185–1333 A. D.), Ashikaga Shogunate (1338–1573), Momoyama (1574–1602), and Tokugawa Shogunate (1603–1867). It was also known in Egypt roundabout 1131 and in Mongolia about 1,400. It was highly developed into a distinguished art in 16th, 18th and 19th centuries in the middle east. In Europe a special invention of lacquer called European lacquer was made and first used in Holland by the celebrated John Huyghen Van Linschoten in 1629–1695. Prior to that, oriental lacquer was imported in Europe. Lacquerware was introduced into France in 1605, where it reached its pinnacle in 1713–1744. In England a treatise named 'Treatise of Japaning' was published in 1688 by J. Stalcker. During 18th century the lacquer work was so popular that it was dubbed as the Ladies Amusement. In America the first lacquered article was imported from England in 1784.

Technically, among western nations, lacquering is restricted to the coating of polished metals or metallic surfaces, such as brass, pewter and tin, with prepared varnishes which will give them a golden, bronze-like or other lustre as desired. Throughout the East Indies lacquering of wooden surfaces is practised, articles of household furniture, as well as boxes, trays and toys, being decorated with bright-coloured lacquer. This process of applying the lacquer to decorative articles of wood is also known as Japanning."[2]

"Nothing in the way of surface-decoration could be more rich and harmonious than the lacquer-work of India—perfect in design and execution, and of extraordinary cheapness", says J. B. Waring. Comparing the Indian craft with the lacquer work of China and Japan, he continues : "These Indian productions are more properly painted papier mache or wood-work, in which the varnish is mainly used as a preservative; and, whereas the Japanese ornaments are of strongly naturalistic tendency, those of India are purely conventional, and embody practically the best and most sterling principles of that system of ornamentation. In almost every case the decoration is confined to conventional devices and foliage....."[3]

Location

I.8 The craft of lac-turnery is found in many towns and villages throughout the State. Some of the well-known centres are Sankheda, Junagadh, Dhoraji, Idar, Mahuva, Jamnagar, Bhavnagar and Rajkot. The golden lacquer work of Sankheda is unique in art for which it has gained popularity even in foreign countries. A brief account of Sankheda is narrated below.

Sankheda

I.9 Sankheda, a small town situated on 22°9′ North latitude and 73° 37′ East longitude is about 35 miles south-east from Baroda, a railway junction on Bombay-Ahmedabad line. Situated on the confluence of the Orsang with the Unch, it lies on the left bank of the former.

I.10 Sankheda is a town of considerable antiquity. The name Sankheda is said to have been derived from the demon named *Shankhav* who was residing in the area.[4] The town has an old fort which was once held by the Jagirdar of Sankheda, Ganpatrao Gaekwad, a descendant of Pilajirao Gaekwad of Baroda. The troublesome chieftain long resisted the arms of

1. *Encyclopaedia Britannica,* Vol. XIII, p. 576, 1768
2. *Ibid.,* p. 574
3. Metha, Rustam J., *The Handicrafts and Industrial Arts of India,* p. 70, 1960
4. Local unpublished history gathered from Virsingbhai Bahadursingh Barot. See Appendix II for details.

Gaekwad, but when in 1802 he sided against Anandrao and with his kinsman Malharrao, the Jagirdar of Kadi, raised a revolt, a small force of British troops was sent to this tiny capital and the fort surrendered on 7th July, 1802. Since then it remained in the hands of the Gaekwads of Baroda till Independence.

I.11 It is the taluka headquarters having population of 7,378 persons according to 1961 Census and the area of 0.19 sq. mile. The non-municipal revenue limits of the town administration is 3.5 sq. miles. The town is one mile from Gojpur-Sankheda railway station on the Chhuchhapura-Tanakhala narrow gauge railway section and equi-distant from Sankheda-Bahadarpur railway station of the Jambusar-Chhota Udaipur narrow gauge section of the Western railway. People generally use the Sankheda-Bahadarpur railway station. Bahadarpur lies on the right bank of the river Orsang, just opposite to Sankheda at a distance of about half a mile. The river Orsang separates the two towns. Regular buses are plying between Sankheda-Bahadarpur railway station and the town throughout the year except during monsoon when road traffic remains closed due to flooding of the river. Until the bridge on the river Orsang between Sankheda and Bahadarpur is constructed, access to Sankheda will be difficult in monsoon. The town is not properly linked with the neighbouring villages.

I.12 Various offices, viz., Taluka Panchayat Office, Mamlatdar Office, Civil Judge's Court, Post Office, Telephone Office, Taluka Mining Office and other offices are located in the town. Besides two primary schools, one for boys and the other for girls, the town has one secondary school and an arts college. Also there are 6 dispensaries, 2 child and maternity welfare centres, 2 Ayurvedic dispensaries, 1 dental clinic, 1 family planning centre and 5 medical practitioners. There is also a veterinary hospital.

I.13 Being a small town, it has only a few recreational centres, viz., a cinema house and two municipal gardens. The river bank is also used commonly by the people as a place of public resort. Apart from this, the other sites are, station, Bhimnath Zampa and Pacheswar Mahadev.

The climate of the town is healthy. May is the hottest month whereas temperature reaches minimum in January.

I.14 Even though the town is a small one there is a well-planned water-supply system. The waterworks established as early as 1908, caters to the water need of the whole town. The well from which the water is supplied to the town being in the bed of the river, there is always an adequate supply of water. The town is equipped with electricity.

I.15 Roads in the town are far from satisfactory, being usually narrow, improperly aligned, imperfectly drained and running in a zigzag way. The pattern is archaic. The existence of irregular *wadas* in olden days and the tendency of the people to stay as near as possible to each other have created the present network of streets. The bazaar road is so narrow that a single truck cannot pass easily through it.

I.16 The town is industrially backward. No big industry is developed here. The town is connected with the region only by *kutcha* roads, and hence in the monsoon, the whole traffic is suspended. Moreover the town looses its contact with the region in the rainy season when the river Orsang gets flooded. Lack of transport facilities has checked the growth of industries in the town. Cotton, groundnut and rice are the main crops of the area. Only one rice-mill and one oil-mill are established in the town. These mills are located in the southernmost part of the town, on the road to Piparia. Apart from these, small industries like flour-mills, *bidi* works, and shoe-making industries are scattered in the town in the shopping area. Blacksmiths and carpenters have their shops-*cum*-manufacturing centres concentrated on new Tower road. Brick making industry is located on the road to the station. The commercial and residential areas are not separated. People like Chhipas, Malis (flower-sellers), Suthars (carpenters), Kharadis (lacquer-workers), Luhars (blacksmiths), Ghanchis (oil-crushers), Mochis (shoe-makers), Kumbhars (potters), etc., manufacture goods in their respective homes and sell them to different merchants or consumers directly.

I.17 Another cottage industry for which the town is famous, is for its unique and unparallel art of the golden lacquer work on wooden furniture and articles to which this monograph relates. The designs and motives on lacquered wooden articles like cradles, chairs, sofa-sets, bed-steads, toys, etc., are impressive and everlasting. This is located in Kharadi Vago. This work is known as 'Kharadi work' in Gujarati and hence the workers are known as 'Kharadi'. It is their traditional occupation. The town has a monopoly in this unique art, and exports the articles to distant places in the country as well as to foreign countries.

SECTION II

CRAFT AND CRAFTSMEN

History of the Craft

II.1 The origin of this craft at Sankheda is not definitely known. But according to a local legend, the Suthars who migrated to Sankheda from the old citadel of Champaner as a result of its conquest by Mohammedans in about 1216 A.D. started lac-turnery along with carpentry. This craft thus came into existence at this centre before 500 years. The lac-turned articles were not transparent which is a later improvement in the technique. The transparent lacquer work in Sankheda according to the knowledge of leading artisans was learnt by two Kharadis, viz., Late Premjibhai Pancholi and Mohanlal Pancholi, the grandfathers of Kanchanlal Jetharam and Amritlal Mohanlal respectively. It is said both Premjibhai and Mohanlal used to visit Baroda for buying the raw materials required in the craft and for obtaining orders for their finished products. Once, during such a visit they found a Muslim artisan applying tin paints upon an egg and applying lac over it for giving a gloss to the design. He used to present this artware to kings and thus earned prizes which were his only source of livelihood. This aroused keen interest and curiosity among them. They began to watch secretly the performance of the artisan and requested him to teach the art. The Muslim artisan who was not teaching his art to anybody including his son agreed to their request and taught the art. Both the Kharadi artisans secretly practised this art on the first floor of their houses guarding the secret closely and without disclosing it even to their family members.

II.2 According to another legend about the origin of the present technique of the craft, about a hundred years ago, Ichharam Pragji, a Kharadi of Baroda, had attended upon a saint during his sickness. Pleased by his devotional hospitality, the sage blessed him in return by teaching him the secret art of polishing with lac. Sages in India used to move from place to place throughout the country for religious discourse and preaching, which made them conversant with the ways of living of the people in different regions. It is quite likely that the saint might have observed the application of tinfoils somewhere and taught the same to Ichharam. This can be further seen from the extract from *Indian Art at Delhi*, 1903 by Sir George Watt reproduced below which shows that tinfoil ornamentation was practised throughout India in various crafts.

> "In many parts of India, the art of preparing coloured tinfoil is fully known and largely utilized. A fragment of coloured lac is placed on a sheet of tinfoil and held over the fire until the lac completely covers the sheet. Tinfoil coloured in this manner is regularly sold and largely employed in the manufacture of imitation jewellery, in the production of tinsel decorations and as an adjunct in ornamental turnery. In many parts of India spools, shuttles and other industrial implements, more especially flat surfaces that cannot be treated on the turning-lathe, are ornamented by clipping up coloured or plain tinfoil into various shapes and forms and gumming these, as desired, over the surface. When the pattern has been completed, the surface is painted over with a spirit and lac varnish, or if capable of treatment on the turning-lathe, it is covered in the ordinary way. By colouring the varnish yellow, the tinfoil shows up as if in gold. Instead of lac, the varnish may be made by boiling myrrh, copal and sweet oil, for some hours, and when cool applying in with a brush. In Baroda lac-turnery is regularly ornamented

with tinfoil underneath the varnish. In the Exhibition the most beautiful example of this style of work may be said to be the child's swinging cot, No. 1526, Rs. 62."[1]

II.3 The then ruler of the Baroda State patronised the craftsmanship of these artisans by exporting the lacquerware prepared by them to European countries and offering them land and other temptations in the form of presents. The art presented so much an enigma that Swiss, Japanese and Americans tried to investigate into the chemical composition of the varnish without any success.

II.4 Whatever may be the reason of origin of this art-craft, the artisans had acquired a great skill and perfection in the work which made it unique and unparallel. It no longer remained the guarded secret of a few artisans but was diffused among most of the Kharadi households because of division of families and close ties. At present there is no secret about the craft which is taught in the Diamond Jubilee Technical Institute at Baroda to anybody desiring to study it.

Size and Structure

II.5 The art of lac-turnery practised at Sankheda has a peculiarity of its own and differs from the ordinary lac application on wooden articles manufactured at other centres like Jamnagar, Rajkot, Mahuva, Bhavnagar, Junagadh and Dhoraji in the State. This art of tinfoil application underneath the lacquer coating which produced ruby appearance and transparency of lac remained their guarded secret and only a few families were engaged in it in the past. As the articles produced were suited to local demand which increased steadily before the First World War, the number of families engaged in the craft also increased. The post-war depression tempted the usual buyers to go in for cheaper foreign substitutes which drove many workers out of this craft into carpentry or trade in wood. Formerly Kharadiwad—a stronghold of these workers—supported nearly 30 families with about 150 persons who migrated from Sankheda to Amreli. And in 1931, there were only 4 families with 20 persons engaged in this work.[2] Subsequently the number increased both because of division of families and entry of new families of the same caste who were so far engaged in carpentry only. At present about 30 Kharadi families are working on *sangheda* besides 8 to 10 engaged in the fitting work. About 65 skilled artisans are working in the craft. Being a handicraft pursued in the residential premises, females and children also play their role by rendering a helping hand in various processes. Males mostly work on *sangheda* and do other strenuous work of making *harkalai*, etc., whereas females and children assist by sorting of stick-lac, washing, pounding and weeding to obtain pure seed-lac and its processing. About 8 to 10 Suthar families associated with the craft do the final process of fitting the articles only. They employ about 15 hired workers. Sometimes when the finished goods require to be fitted urgently to meet the express demand, they take the help of nearest relatives to carry out this work on payment.

II.6 Their caste-fellows residing at Gundicha and Bhatpur, five miles and seven miles from Sankheda do not know the craft. Sankheda is the original centre of this craft. But, some of the artisans of Sankheda being attracted by high wages paid to them at Baroda migrated there and practised the craft there. Thus the art of Sankheda went to Baroda. At present the craft is practised at Baroda by 3 families of this caste who have settled there from Sankheda for the last 14 to 15 years besides 10 families of Gujjar Suthars who have also learnt the technique.

Type of Units

II.7 Almost all the establishments engaged in the craft are independent units undertaking production and sale of finished products on their own, each family is an independent unit of production working with the assistance of

1. Watt, Sir, George, *Indian Art at Delhi*, pp. 217-218, 1903
2. Mukerjea, Satya. V., *Census of India 1931*, Vol. XIX, *Baroda*, Part I, p. 290

family members only. The finished products are sold directly to the traders, individual customers or to the cooperative society. All the Kharadi artisans are now covered under the cooperative society organised on 23rd November, 1962. About 10 to 12 artisans not having enough accommodation for work at their residence work under a common shed. The society has so far not undertaken production but sells teak wood at reasonable rates to the members and assists them in marketing their finished products. The small units with poor means sometimes sell their goods on cash payment to well-to-do craftsmen who are known for their workmanship. A common facility-*cum*-production centre is also shifted from Baroda to this place to facilitate the artisans, the use of machinery installed therein.

CASTE AND COMMUNITY

II.8 As the tradition holds in India, woodwork is essentially a Suthar's job. The craft of lac-turnery is known as *kharadi kam* from *kharad* meaning *sanghedo* or a hand-operated lathe. The artisans working on *sangheda* or the turners are, therefore, known as *kharadis*. Regarding their position in rural India, Sir George Watt says: "The turner (Kharadi) with his lathe is met with in every village and has an assured position in the community."[1]

II.9 The artisans engaged in this craft at this place are known as Kharadis and the locality where they stay as Kharadi Vago. All the Kharadi families belong to Pancholi sect of Hindu Suthars. According to their own account they have migrated before 500 years from Champaner, a well-planned and rich town of that time. They were engaged there in carpentry and wood work which they continued here after migration. Later only a few families learned this craft and changed their occupation. Their caste-fellows in the town and near-by areas still work as carpenters. Thus *kharadi* is their occupational nomenclature and not the caste. Pancholi is one of the sub-castes of Suthars. Each of the sub-castes are endogamous divisions.

II.10 The word Suthar is the mutation in use of the Sanskrit word *sutradhar* means a holder of a string (*Sutra*—meaning a thread or string and *dhar* a holder), for the use of string in planning and measuring wood. Suthars are pretty evenly distributed throughout the whole State in villages as well as towns and cities. In rural areas they render services mainly to the agriculturists by way of manufacture and repairs of carts, ploughs and other agricultural implements, besides building construction, e.g., window frames, door frames, etc. The village carpenters thus performs the necessary function in the village economy and holds a respecting and assured position in the village community. As *jajmani* relations also prevail between the Suthar and agriculturists in most of the villages, Suthars are paid in kind at harvest time. Suthars also hold land at light quit-rent in return for the services they render to the village community. In towns, carpenters build houses and shops and make various articles of furniture. They are also called *mistri* or foreman because of their working in building activities.

II.11 According to their account they are the descendants of Vishvakarma the divine architect who had four sons, viz., Vaishya, Mevada, Gujjar and Pancholi. All these four endogamous divisions of Suthar are found throughout Gujarat. Vaishya, Mevada and Gujjar are considered superior in caste heirarchy to Pancholi with whom they do not interdine or intermarry.

II.12 An ethnographic account given by Enthoven which holds true with little variation today is reproduced below.

> "They have six endogamous divisions, (1) Ahir, (2) Gujar, (3) Marwari, (4) Mevada, (5) Pancholi and (6) Vaisha. Of these the Pancholis and Vaishas are found only in Gujarat proper, the Gujars and Marwaris in Gujarat, Kathiawar and Cutch, and the Ahirs in Khandesh and Cutch. The Gujars, Mevadas, Pancholis and Vaishas claim descent from Vishvakarma, the divine architect. The Vaishas are supposed by some to be the descendants of a courtesan of Veshya, but their high position seems to show that they may be a trace of the old Hindu division of Vaishya or traders. Similarly, the low position of the Pancholis supports the view

1. WATT, SIR, GEORGE, *Indian Art at Delhi*, p. 211, 1903

that the word is Panchuli or Panchkuli, the same as Panchas, that is, the half of the Dasas or only one quarter pure blood. The Marwaris, Mevadas and Gujars, as their names suggest, appear to be territorial in origin. Except that the other five divisions eat food cooked by Vaishas, none of the six divisions eat together or intermarry. The cause of the Vaishas being superior to the rest appears to be that they wear the sacred thread and do not allow their widows to remarry. The Panchas rank lowest because they alone prepare oil presses, build ships and do other work in wood involving loss of animal life. Each division has several exogamous sections which either resemble Rajput clan names or are derived from names of villages. Marriage is generally prohibited within four or five degrees from the common ancestor on the mother's side. Marriage with a father's sister's, mother's sister's or mother's brother's daughter is not allowed. Marriage with two sisters is allowed and brothers are allowed to marry sisters. Girls are generally married before eleven and boys before sixteen. Among Vaishas and Mevadas in North Gujarat, widow remarriage and divorce are not allowed; among the rest, widows are allowed to remarry and divorce is permitted. A bachelor is not allowed to marry a widow.

Gujarat Sutars follow the Hindu law of inheritance and belong to the Parnami, Ramanandi, Shiva, Swaminarayan and Vallabhacharya sects. In Kathiawar and Cutch they chiefly worship Goddesses, their family Goddesses being Bhaniban, Chamunda, Dhrangad, Mahamaya, Matay, Solanki, Verai and Vachran. The Vaishas and Mevadas in North Gujarat invest their boys with the sacred thread with full Brahmanic rites. All believe in sorcery, witchcraft and the ordinary omens, keep the usual Hindu holidays and visit places of Hindu pilgrimage. Except the Marwari Sutars, who employ the degraded Parjia Brahmans, their priests are the Audich and Modh Brahmans."[1]

Social Customs

II.13 Among, Pancholis, the sacred thread ceremony is not customary. Those who visit Lord Vishvakarma at Ellora are entitled to wear the sacred thread. They wear sacred thread with full Brahmanic rites at Ellora or at home. They have no separate *kul* or *gotra* (sept) and they intermarry in the same sept but not within five degrees from the common ancestor. Parents decide the match. Nowadays consent of the boy and girl is taken. They are also allowed to see each other. Formerly, betrothal used to take place in young age but there is a shift from this tradition and nowadays engagement takes place when they are mature. Marriage expenditure varies according to economic condition but generally it comes to Rs. 1,500 on the boy's side and Rs. 1,000 on girl's side. Cash amount of Rs. 20 known as *pallu* is given to the bride and is compulsory. Widow remarriage is allowed. Divorce is not permitted by the caste *panch* but can be had by recourse to a Court of law.

Surveyed Households

II.14 This study undertaken in the year 1961 covers 19 Kharadi households actually engaged in lac-turnery at Sankheda. All of them are concentrated in one locality, namely Kharadi Vago. They work independently in their own premises with the help of family members. All the processes except fitting work is carried out by them. These 19 families comprise 92 persons—50 males and 42 females. The average family consists of 4.8 persons. The following statement shows the workers in the surveyed households.

STATEMENT I

Workers by sex and age groups

Age group	Persons		Males		Females	
	Workers	Non-workers	Workers	Non-workers	Workers	Non-workers
1	2	3	4	5	6	7
0–14	3	33	2	19	1	14
15–34	28	7	13	4	15	3
35–59	18	0	11	0	7	0
60+	3	0	1	0	2	0
Total	**52**	**40**	**27**	**23**	**25**	**17**

II.15 Out of 92 family members, 52 or 56.52 per cent are workers and 40 or 43.48 per cent are non-workers. Females also contribute almost an equal

1. Enthoven, R. E., *The Tribes and Castes of Bombay*, Vol. III, pp. 358-359, 1922

proportion of workers as the sex division of workers shows 27 males and 25 females. It is interesting to note that 54 per cent of male members are workers against the corresponding proportion of 60 per cent of females. This shows that the contribution of female workers in this craft is significant and proportionately larger than that of males. The workers—both males and females—are mainly in the age group 15–59 which accounts for about 88 per cent. Females, besides their household chores, keep themselves engaged in various processes of the craft by rendering a helping hand to males who do the strenuous work and actual turning of wood, designing, application of lac, etc. Teenagers also assist and do the light job and also work on *sangheda* and make small articles like toys, *velan*, etc., by which they learn the craft.

LITERACY

II.16 Literacy among artisans is fairly high about 60 per cent. Proportion of literates among males is somewhat higher than that of females. The number of literates along with educational standards and sex is given below.

STATEMENT II

Literacy by educational status

Persons/ Males/ Females	Total	Illiterates	Literates	Primary level	Secondary level
1	2	3	4	5	6
Persons	92	37	9	43	3
Males	50	16	3	28	3
Females	42	21	6	15	..

Examination of literate by educational standards shows that it is limited to primary level only. Only 3 males have studied up to secondary level and none beyond. None of the females has crossed the primary level.

WORKSHOPS AND DWELLINGS

II.17 All the Kharadi families are clustered in a locality called Kharadi Vago on the Bank road since their settlement at this place. Of the 19 households, 17 live in owned houses and only 2 in rented premises. The general housing condition depicts that their houses are one or two room tenements, with a kitchen in back and a verandah in the front. The houses are of old type but, spacious and well-ventilated. As there is no drainage, the waste water accumulates in the cess-pool dug for the purpose.

II.18 None has a separate workshop, all being workshop-*cum*-dwellings. Verandah is mainly used as a working place where *sanghedo* or lathe is fixed on the ground with raw materials, tools and other accessaries spread over near the artisan's seat. Though the usual working place is the verandah in the front portion of the house, those not having verandah work in any suitable portion of the house also. Eventhough a suitable portion is earmarked as a working place for fixing a *sanghedo*, the craft is so intermixed with their life and living that one finds raw materials, finished products, etc., stored wherever space is available in their dwellings. It is no wonder that one finds a female of the family cooking food, another pounding lac near-by the kitchen and the third sucking the child while weeding seed-lac. They have no fixed hours of work. Males work from morning to evening with a rest period of two hours after lunch when they relax in the verandah with a pillow under their head. Females work after completing the household chores or whenever they find time during the whole day. Females while working also take care of their children and instruct the teenaged daughter for the evening menu. During this period, the artisan may also attend to the multifarious household duties, entertain his guests and friends or take a short nap if so desired. Working hours of housewives are regulated according to the needs of the household duties. It is interesting to watch the working condition and way of living of the artisan's family wherein one finds it difficult to separate their craft from their living.

II.19 Of late with the organisation of a cooperative society and shifting of common facility-*cum*-production centre from Baroda, some of the member artisans have got their *sangheda* fixed in a covered shed in the compound of this institution where they work usually from 8 a.m. to 12 a.m. and 3 p.m. to 6 p.m. Only male artisans who have no space at home work there. As they are working on their own, the

above timings are not strictly adhered to, as they can work at any time convenient to them. Sometimes they work up to 11 p.m. in night during the peak season. Females do not go to the institution but work at home, both because they do not work on *sangheda* and also they cannot remain away from home as they have to look after household duties and take care of children.

Health and Hazards

II.20 Both males and females remain busy for the whole day. The craft demands healthy and sturdy physique. Various processes like making *harkalai* and coloured *battis* of lac are strenuous and requires continuous hammering for two to three hours. Even the rest of the processes are also manual requiring the physical fitness. No adverse effect on health or physical disability is reported by the artisans even after continuously working for years. They, however, say that artisans doing strenuous work should take simple nourishing food to maintain the stamina.

Hobbies and Recreational Activities

II.21 Males are habituated to common habits of *bidi, pan,* tea, and visiting the pitcure house and frequently going to tea shops. *Bidi* and tea are common items of diversion during work. They have no hobbies, occasionally they play cards. All the artisans are Hindus and religious-minded. They have mostly a deity in their house where they daily offer prayers in the morning before starting work. *Bhajan* and *kirtan* are common on festival days which provide a change and recreation from routine life. Lord Vishvakarma is their family deity and Vishvakarma *jayanti* on Magh Sud 13 is celebrated with great joy. It is the cherished desire of every artisan to visit the Vishvakarma temple at Ellora (Ilorgadh), 18 miles from Aurangabad in Maharashtra, at least once in lifetime. As all are Hindus, they celebrate Hindu festivals like Divali, Holi, Mahashivratri, Janmashtami, Dassera, Navratri, etc., like other Hindus. Monday is their weekly off besides other religious days when they do not work.

SECTION III

RAW MATERIALS

RAW MATERIALS

III.1 THE EASY AVAILABILITY of raw materials like teak wood and lac in the near-by forests of Chhota Udaipur in sufficient quantity and at reasonable rates, appears to be one of the main reasons for the concentration of the craft of lac-turnery at Sankheda. Though this industry is found in various villages and towns, it is practised on a larger scale in towns near forest areas. Junagadh and Idar, the important centres of the craft are near forest areas, the former getting the benefit of Gir forest and the latter of Sabarkantha forest. This obvious benefit of availability of raw materials, naturally played an important role in the concentration of the craft. Besides the basic raw materials like teak wood and lac, the subsidiary materials required are colours, *kevda* leaves, sandpaper, tin, agate-stone, brass wires, glue, groundnut oil, coal, etc. The following statement lists the raw materials, their prices in June, 1967 and market for procurement.

STATEMENT III

Raw materials

Raw materials	Unit	Price per unit in Rs. (year 1967)	Place of procurement
1	2	3	4
Teak wood	20 kg.	10.00	Chhota Udaipur, Bodeli
Stick-lac	20 kg.	30.00 to 40.00	-do-
Colours, I. C. I.	500 gm.	10.00	Sankheda, Baroda, Ahmedabad
Whitening powder	1 kg.	2.00	Sankheda
Sandpaper	1 doz.	1.50	Sankheda, Baroda, Ahmedabad
Groundnut oil	1 kg.	4.50	Sankheda
Tin	1 kg.	60.00	Sankheda, Baroda
Coal	20 kg.	6.50	Sankheda
Iron wires	1 kg.	1.00 to 3.00	Sankheda,, Baroda
Brass wires	1 kg.	21.00	Baroda, Ahmedabad
Hangers for cradle (Steel plated)	Pair	6.00 to 8.00	Sankheda, Baroda

III.2 Artisans purchase these raw materials on cash or on credit basis. Credit involves payment of higher prices. The system of working on piecework basis for the master craftsmen supplying the raw materials and getting back the finished products is not in vogue. The artisans work on their own. On account of their average economic condition, the ability of the craftsmen to invest in raw materials is highly circumscribed. They, therefore, make their purchases in quantities as and when required.

A brief description of the raw materials used in this craft is given below.

TEAK WOOD

III.3 The selection of wood depends upon the purpose in view. For ornamental objects, light coloured and uniformly grained wood, not liable to split is indispensable. A long list of different types of wood used in the craft can be prepared. But at Sankheda the main items of production are cots, cradles, swings, sofa-sets, etc., which require a strong and durable wood with minimum weather affect. Hence the most suitable wood for these objects is teak wood. All the artisans use teak wood. Toys and other small decorative pieces are also made from this

wood as small pieces of wood left off the main items produced will be naturally utilised in their manufacture. Known as *sag* in local parlance, teak wood (*Tectona grandis*) or Indian Oak, is also called prince of timbers because of its superiority in building works, etc., over other timbers. It grows in the forests of Gir and Dangs in Gujarat. It grows in abundance all along the slopes of the Western Ghats, and also in other parts of the country, i.e., in North Kanara district of Mysore, and Madhya Pradesh. Outside India, it is also found in Malaya, Burma, Sumatra and Jawa. In Gujarat it is found in mixed deciduous forests. It is easily available in ample quantity from the forests of Chhota Udaipur near Sankheda.

III.4 *Sag* is a large deciduous tree having a height of 20 to 21 metres and girth of 3.6 to 6 metres. Some trees grow as high as 45 metres taking sixty to seventy years to mature. The tree looks handsome with small white flowers grown in numerous branches when it blossoms from June to September. The colour of the sap-wood is golden yellow which turns brown, dark brown and finally almost black. In trees other than *sag*, the rings are scattered, scanty, sometimes subdivided and variable in size whereas in *sag* they are marked by one or more lines of regularly arranged pores. This is considered as most naturally durable wood of the world as it is strongly and characteristically scented and it contains an oil which has preservative characteristics. Because of its so many qualities combined in one, it is an all-purpose wood. Its very name in scientific parlance—*Tectona grandis*— shows its great value to the wood workers, from the Greek *tekton*, a carpenter and Latin *grandis*, meaning grand or large. This versatile wood is suitable for carpentry of all kinds like carving, turning, etc., and for making structural parts, bridges, ships, furniture and cabinets, agricultural implements, railway sleepers, transport vehicles, etc. It lasts for hundred years. Being very durable it can be used again and again. Its root, bark, wood, flowers and seeds have medical uses. The tree yields good oil, a substitute for linseed oil in preparation of paints. The leaves of the tree are eaten by cattle and are used as leaf dish and for wrapping parcels and thatching.

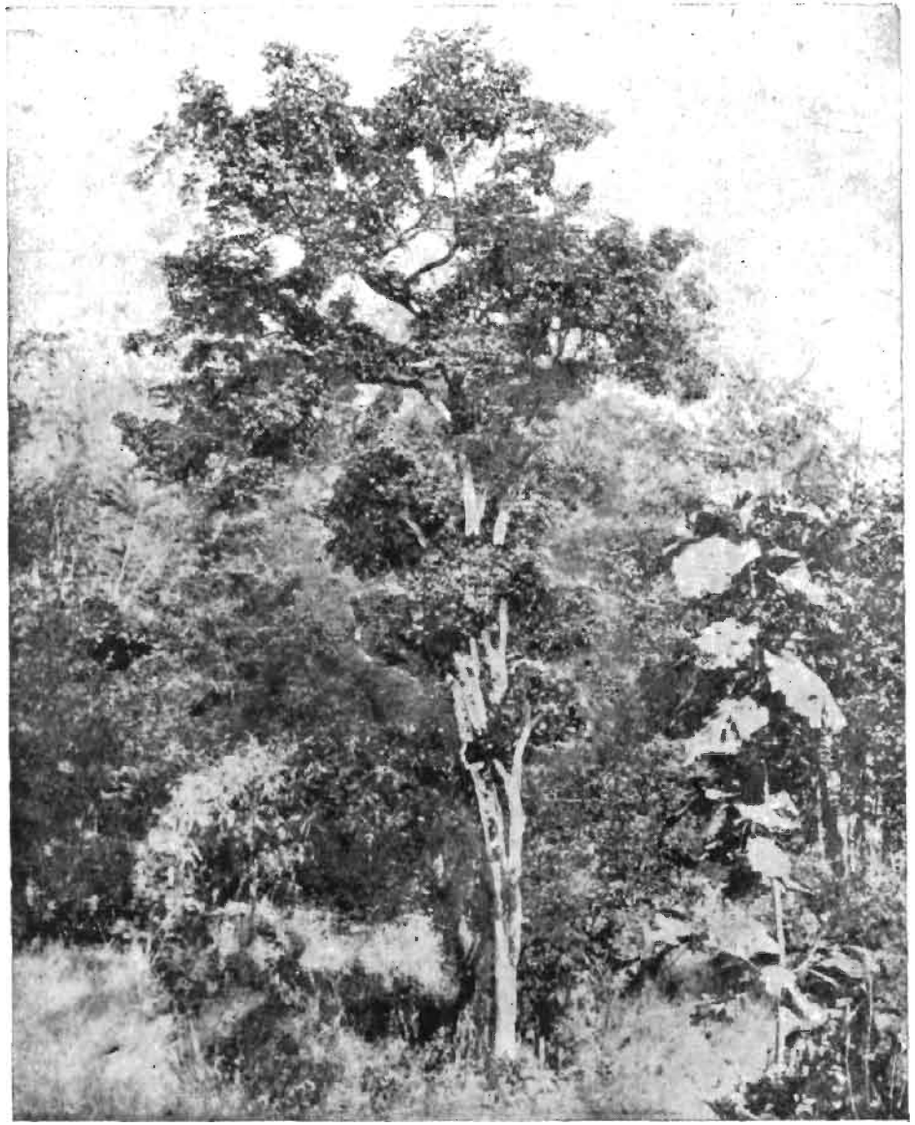
III.5 This strong and hard wood has outstanding merit in retention of shape and durability. It is easily sawn and worked either by hand or on machine. It is soft, easy to work on and specially suitable for doing fine work as there are no fibres in it. Being smooth and round, little labour is required for giving it the desired shape on the lathe. It turns beautifully and can be finished to a surface which needs little sanding. Its cheapness compared to other species of timber has made it specially suited for use in this industry. On the basis of a contract with the Forest Department of Government, the coopeative society and the merchants get the raw materials and sell them at Bahadarpur-Sankheda and at Bodeli, which is the largest trading centre in the taluka. From Bahadarpur-Sankheda and Bodeli, it is brought to Sankheda by cart, lorry or rail by the purchasers.

Utmost care is, however, required to select seasoned and uniform wood so that it can be worked on the lathe smoothly and it may take up the lacquer quite evenly and conveniently. Use of seasoned wood, apart from ensuring good lacquer finish, also prevents warping or splitting afterwards.

The retail price of this wood varies according to girth and quality of the log. The price of 100 kg. of wood of superior quality works out to about Rs. 50.

LAC

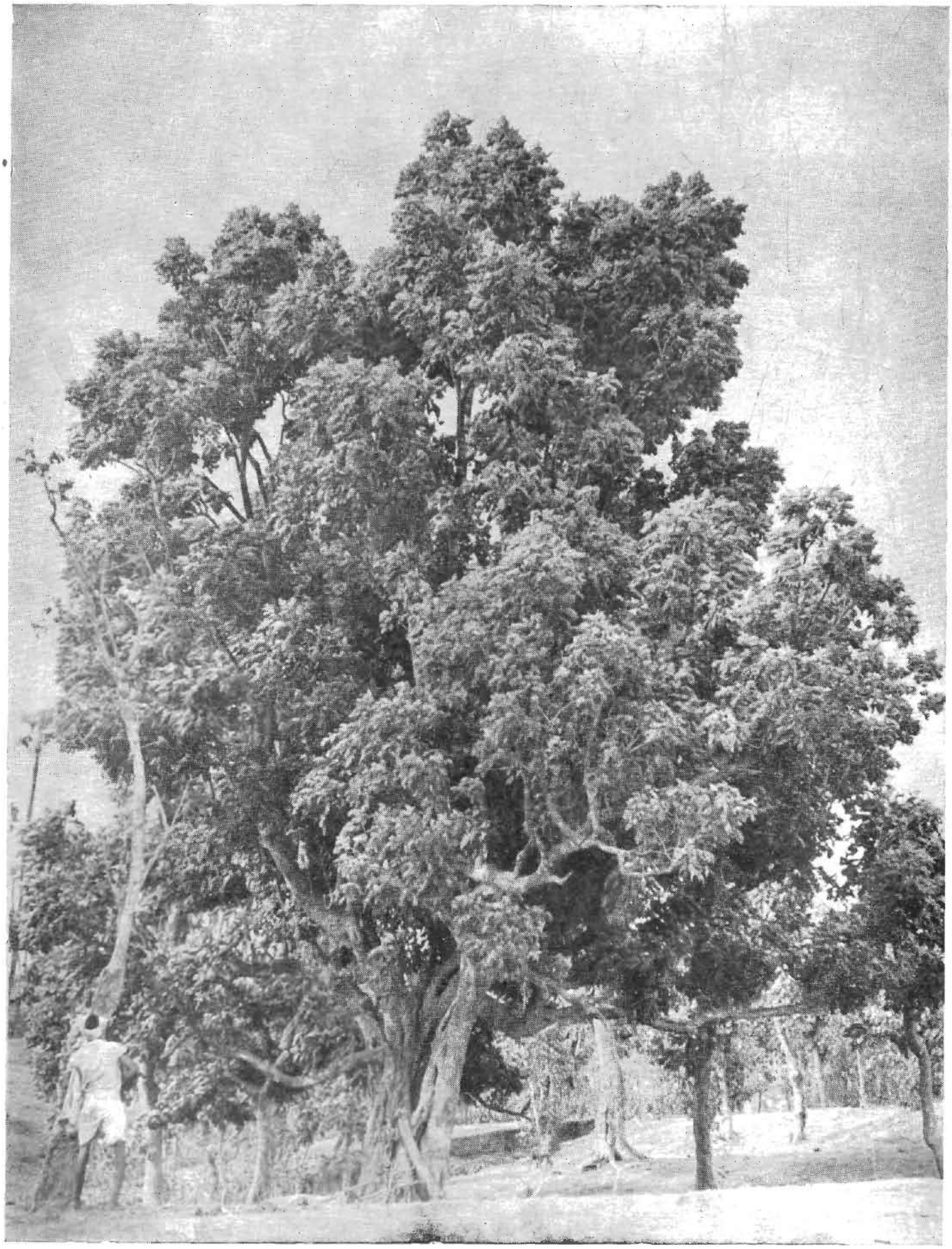
III.6 As seen earlier, lac is a commodity of very great antiquity which finds a mention in the *Vedas* and the epic of *Mahabharat*. For many thousand years it has been used as medicine, dye and resin. Today, it is only occasionally used for medicinal or dyeing purposes, while during the 17th to 19th century it was an important commodity for export as it was in great demand in Europe as dye. Its use as dye has disappeared because of cheap synthetic dyes which are now manufactured. At present it is an important commercial commodity for its chief application as a resin in a large number of modern industries. It is the only resin from an animal source with peculiar properties that make it a versatile natural resin useful for diverse applications, e.g.,





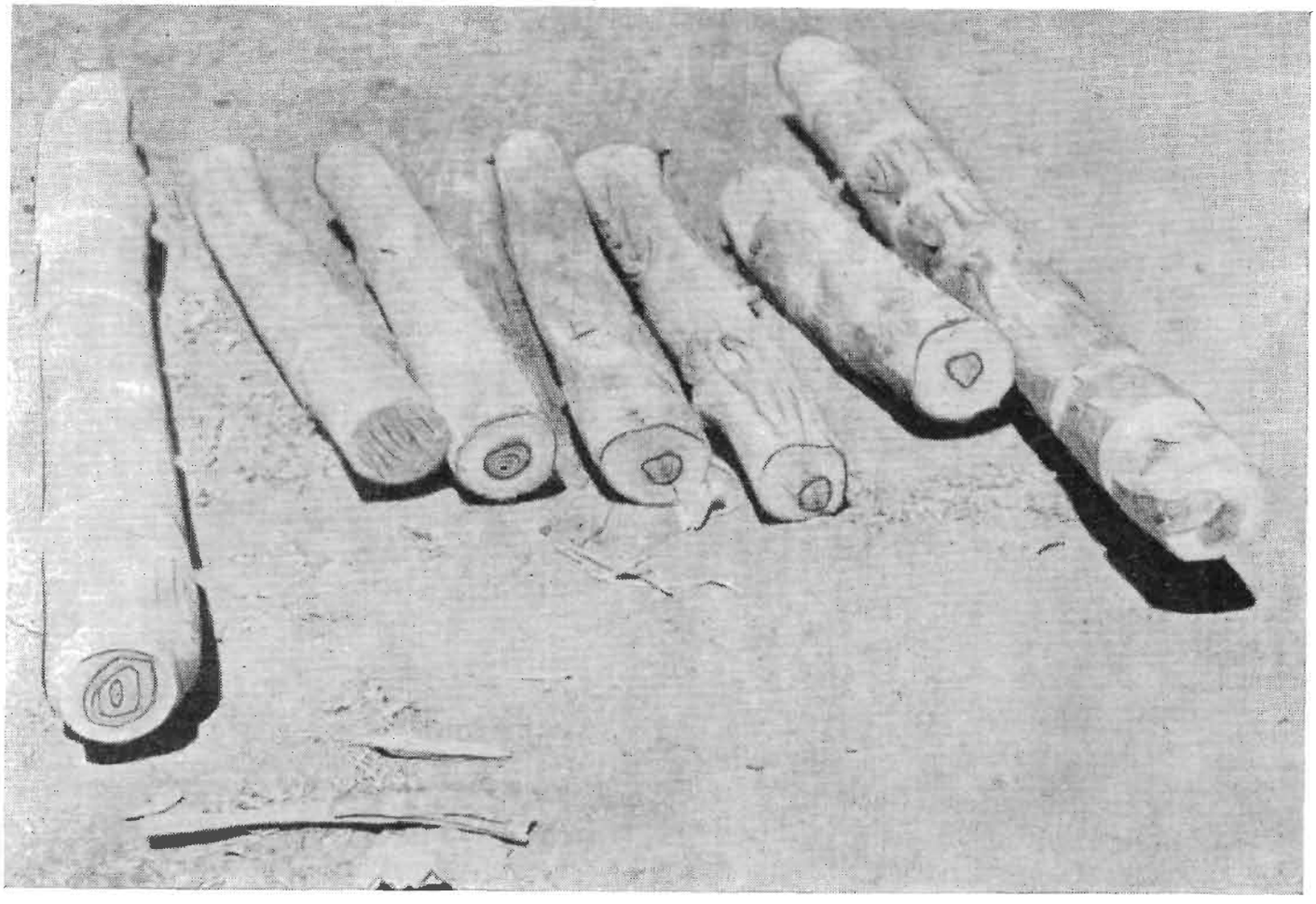
1 2

'Sag' or teak, 'Tectona grandis' the best wood of Gujarat (1) In full growth, (2) Young sapling
(Reproduced from the Journal of Indian Art and Industry, Vol. III, Indian Timbers, 1910)



Lac bearing Kusum tree 'Schleichera oleosa'





Logs of 'Sag' wood cut into required sizes



Stick lac

as a protective and decorative coating in the form of thin layers, adhesives and plastics.

III.7 India is the major producer of lac since long. Although lac production is undertaken in a wide area, it is concentrated in the tracts comprising Chotanagpur in Bihar, the eastern districts of Madhya Pradesh, parts of West Bengal, eastern Bombay (prior to reorganisation), northern Orissa and Assam, and Mirzapur district of Uttar Pradesh. Small pockets of cultivation are also found in Andhra Pradesh, Madras, Mysore, the Punjab and Rajasthan. During the 17th to 19th century it was a commercially important commodity for export as a dye, and, thereafter, as a resin. The East India Company built up a trade in Europe in lac-dye as a cheaper substitute for the cochineal, which incidentally is also a product of another scale insect. The trade flourished till the close of the 19th century when it received a set-back due to the advent of aniline dyes. But by this time, the demand of lac-resin showed a rapid growth due to its wider use in industries as a result of discoveries on the utilisation of lac-resin in the industrial sector.

About 11 lakh maunds of stick lac are produced per annum of which over 90 per cent is exported and foreign exchange to the tune of eight to ten crores of rupees is earned annually. It, thus holds a fairly high position in the export list.

About 70 per cent of the stick lac (crude lac) produced in the country is processed into seed-lac or shellac, in a large number of small manufacturing units distributed throughout the lac-growing areas, before it is exported.[1]

LAC HOSTS

"The lac resin is secreted by the tiny lac insect (*Laccifer lacca* Kerr), belonging to the group of insects called the *Coccids* (scale insects and mealy-bugs). A large number of small lac glands found all over the body of the insect, pour out the resin continuously throughout its life to form a protective covering for the delicate, sedentary insect. The quantity of lac secreted per insect is very small and it requires approximately 150,000 insects to produce sufficient amount of raw lac to make one pound of shellac.

Two distinct strains of the lac insect are known in India. These develop and mature in different seasons, and also prefer separate species of plants as their hosts. Both the strains pass through two generations in a year and correspondingly yield two crops each. The lac crops from the one known as the *kusumi* strain are of equal duration (about six months each) and are called *jethwi* and *aghani*. The former is raised from January-February to June-July and the latter from June-July to January-February. The *kusumi* strain thrives best on the *kusum* tree (*Schleichera oleosa*). It can also be raised successfully in certain seasons on other species like *khair* (*Acacia catechu*).

Similarly, the other strain known as the *rangeeni* strain gives two crops, *katki* and *baisakhi*, in a year, but unlike the *kusumi* strain, the crops are unequal in duration. The *katki* crop has a duration of about four months and is raised from June-July to October-Novem ber. The *baisakhi* crop, on the other hand, is of eight months' duration and is cultivated from October-November to June-July of the next year.

So far, over a hundred species of plants have been recorded as hosts for the lac insect in India, but only about a dozen of these are the commonly utilized species for lac cultivation. They, in the order of importance, are—(i) *palas* (*Butea monosperma*; Syn. *Butea frondosa*), (ii) *ber* (*Zizyphus mauritiana;* Syn. *Zizyphus jujuba*), (iii) *kusum* (*Schleichera oleosa;* Syn. *Schleichera trijuga*), (iv) *ghont* (*Zizyphus xylopyra*), (v) *jallari* (*Shorea talura*), (vi) *arhar* (*Cajanus cajan*), (vii) *Grewia* species, (viii) *Leea* species, (ix) *Ficus* species, and (x) *babul* (*Acacia arabica*). Among these, the first three are considered the major lac hosts, as over 95 per cent of the production is from these three hosts. *Palas* and *ber* together account for over 85 per cent of the production, and *kusum* for about ten per cent. The rest are only of regional importance."[2]

1. KRISHNASWAMI, S., *Lac Cultivation in India*, pp. 3-4
2. *Ibid.*, pp. 3, 11-14

III.8 The quality of lac varies chiefly according to the tree upon which the insect feeds. Kusumi strain is considered superior in quality because of lighter colour of the resin. *Kusum* lac is considered to be the best in quality and found most suitable for lacquer work among all. The *kusum* lac is said to last for ten years while all other qualities are only good for two to three years. The *kusum* lac twigs are of light golden colour from which orange shellac is manufactured.

III.9 The artisans at Sankheda mainly use *kusum* lac because of its durability. *Kusum* trees are found in the forest of Chhota Udaipur near Sankheda and are commonly utilised for lac cultivation. The brief discription of *kusum* tree is given hereunder.

KUSUM (*Schleichera oleosa*)

"It is a large, deciduous (nearly evergreen) tree with short trunk and spreading crown, and occurs in the sub-Himalayan tracts and outer hills, commonly on well-drained boulder deposits and along the sides of ravines. The species is usually sporadic in habit, and scattered in its distribution with the result that concentrated cultivation is not possible.

It can be raised in plantations either by direct sowing of seeds or by transplanting of seedlings, the former method being undesirable. During April-May, four to five seeds are sown in well-manured pits of 2½ feet by 2½ feet and 3 feet deep with a spacing of 20 feet by 20 feet. Until the break of monsoon, watering and occasional weeding round the plants should be carried out. After two or three years, the most vigorous growing seedlings may be kept and the others eliminated. The trees are somewhat slow-growing and can be infected after about 15 years or so for the first time.

A medium-sized tree may require 10 to 15 pounds of brood lac for infection, and may yield up to 15 to 20 pounds of stick lac. * * *

In the case of *kusum* which is generally a huge tree, inoculation is started usually in June-July by putting some quantity of purchased brood lac on a portion of the tree. When the *aghani* crop matures, lac is partially cut as ari from November onwards till December-January, and some lac is left over for further propagation by self-inoculation. Thereafter, repeated self-inoculation for every crop is practised as a general rule, gradually shifting the cultivation from one portion of the tree to another. At times, with the surplus brood available more portions of the same tree or fresh trees are artificially inoculated.

Lac host trees are never given pruning as a separate operation, nor are they given any rest. Only the cropping operation serves as pruning for the hosts.

The artificial inoculation of the trees, whenever it is carried out, is usually done in a casual manner. Brood bundles are kept at a few places in large quantities, and may not be removed for months together from the trees. Care is also not taken to use only selected, healthy brood lac, free from enemy insects for inoculation. These practices naturally lead to an unchecked thriving of the lac enemy insects and consequent reduction in crop-yields, and a poor quality lac is obtained."[1]

III.10 The crop is harvested twice in a year, namely, (i) January-February, (ii) June-July.

After the larvae escape, the old encrusted twigs and the dust are removed and cut into pieces 4 to 6 inches long. These form stick lac. Mainly Adivasis of the forest area collect stick lac and sell to the traders from whom the artisans purchase. There is no difficulty in procuring stick lac (crude lac) as it is available in sufficient quantity throughout the year. Artisans generally purchase stick lac during the harvest time when the prices are comparatively less. The stick lac from *kusum* tree is available at the rate of Rs. 30 to 40 for 20 kg. Stick lac

1. KRISHNASWAMI, S., *Lac Cultivation in India*, pp. 16-17; 26-27

is further processed to make coloured *battis* or sticks. The artisans themselves with the help of family workers undertake this job. This process is discussed in the next Chapter on 'Tools and Technique'.

Colours

III.11 Colours are required for the background underneath the lacquer coating as well as to prepare coloured *battis*. For colouring the background, the water colour especially light red or blue or green is applied with the help of a piece of cloth to the article rotating on lathe. These colours are locally called *kutcha* colours and one generally used is having trade name of 'Race Haran Brand' manufactured by Taherally Essufally Rangwala, (Vadgadi, Bombay-3). It is procured locally. Coloured *battis* of lac required for coating the wooden articles are prepared by the craftsmen themselves after the mixture of basic colours. The basic colours are marketed in a powder form in tin containers of capacity ½ kg. and 1 kg. Printing colours, viz., lemon yellow, naphthalene, orange, malachite green, rhodamine, mathylene blue, etc., of I.C.I. Company are mainly used in preparation of coloured lac sticks. Various colour shades are obtained by mixing different colours. The artisans say that before 25 years they were using German colours which were superior in quality, in depth of tone but they are not available now in the market. Good and pure quality of colours is most essential to obtain the desired shine and shade.

Kevda Leaves

III.12 After the lacquer coating on the article, a *kevda* leaf, dipped in groundnut oil is pressed against the revolving object, to polish the lac for getting shine which is permanent. The *kevda* leaves are thus required by the craftsmen to give final finish to the coloured products. *Kevda* (*Pandanus odoratissimus*) is a flowering plant with strong sweet smell, which generally grows by the side of rivers and streams. Its long leaves are famous. Being long, thicky and stiff *kevda* leaves are preferred to leaves of other trees. The thicker the leaf, the better are the results produced. The use of cotton rags instead of *kevda* made elsewhere to polish the lac is not practised as the desired shine cannot be obtained. Before use, *kevda* leaves are soaked in water the previous evening. Next morning the leaves are folded to make a pad with thickness of about 4 cm. required for polishing. These pads are placed by the craftsmen beneath his seat while working so that they become even by pressure. The leaves are available locally.

Sandpaper

III.13 It is vital to have a smooth surface of the article before applying the coating of lacquer else the finished article will be spoiled. For smoothening the surface and preparing the base for lacquering of the turned piece, sandpaper covered on one side with glass sand is used. Sandpaper of various gradations, viz., very coarse, coarse, medium, fine and superfine is used according to necessity. It is available in size 12"x10" and in grades of 1/2 and 0. The cost of sandpaper is Rs. 1.50 for a dozen sheets.

Groundnut Oil

III.14 Groundnut oil is used for giving a final polish to lac coatings. Gujarat has a large area under groundnut cultivation and has a number of oil-mills spread throughout the State. Groundnut oil is an edible oil, has a pleasant taste and is used as a cooking medium. It is easily available in the local market @ Rs. 2.50 to 4.50 per kg.

Tin

III.15 Tin is white in general appearance approaching silver and has metallic lustre. It is maleable, ductile and tenacious and heavier than zinc. It is used for preparing *harkalai*, a silvery white paste applied underneath the painting on the article before the lac coating is applied. These silvery paintings of tinfoils under the transparent lacquer coating appears unique and unparallel. Under transparent yellow lacquer, the tinfoil looks golden. The tinfoil ornamentation at Sankheda makes it the most unique of all types of ornamentation practised in the

country. The process of making *harkalai* is discussed in the Chapter on 'Tools and Technique'.

III.16 Tin is purchased locally in small quantities according to requirement. The artisans experience great difficulty in bulk purchases because of financial limitations. Also the prices of tin are exorbitantly high after the Chinese aggression. The steep upward trend of tin prices can be seen from the following statement.

The artisans feel that if tin is supplied by the Government at reasonable rates, the cost of finished products can be reduced to that extent and demand for lacquered articles can grow.

STATEMENT IV

Prices of tin (per kg.)

Year	Market price (in Rs.)	Year	Market price (in Rs.)
1	2	1	2
1960	17.00 to 18.50	1964	23.50 to 28.00
1961	18.50 to 19.00	1965	28.00 to 36.00
1962	19.00 to 21.00	1966	36.00 to 45.50
1963	21.00 to 23.00	1967	45.50 to 50.00

III.17 Other raw materials are (i) glue used in making *harkalai*, (ii) a whitening powder for polishing the surface of turned article and coal used as fuel. All the subsidiary materials are locally available and artisans do not experience any difficulty in procuring them.

SECTION IV

TOOLS AND TECHNIQUE

A—Tools and Implements

IV.1 THE TOOLS AND EQUIPMENTS utilised in the craft are ordinary carpentry tools and a crude wooden lathe with ancillary appliances for turning. All these are simple, hand-operated, traditional tools and implements and no change has been noticed therein. Most of the tools are manufactured by the local carpenter or blacksmith or locally purchased, and so the artisans have not to go outside Sankheda for getting them. The chief tools required are the hand-operated lathe, and cutting tools like saw, adze, plane, hammer, drill, etc. The tools and implements employed in the craft are listed below with their price, use and local names.

STATEMENT V

Tools and implements

Sl. No.	Tool or implement	Local name	Approximate present price (1967) per implement (in Rs.)	Place of procurement	Function
1	2	3	4	5	6
1	Hand-operated lathe	Sanghedo	25.00	Sankheda	Turning of wood
2	Iron rod (4')	Kosh	9.00	„	Pressing and supporting
3	Scrapers and chisels	Lelo/Veraki/Vijanu	3 to 4	„	Scraping and shaping
4	Bowstring (4'-5')	Dhandhodi	2.50	„	Rotating the article on lathe
5	Foot-ruler	Futpati	1.50	„	Measuring
6	Calipers	Compass	2.50	„	Measuring the diameter
7	Fork	Chipiyo	0.50	„	Holding
8	Hammer	Hathodi/Ghan	3.00 to 12.00	„	Hammering
9	Handsaw	Karvat	5.00 to 12.00	„	Cutting wood
10	Adze	Vanslo	15.00	„	Cutting and shaping of wood
11	Drill	Shardi	20.00	„	Drilling
12	Plane	Randho	14.00	„	Smoothing the surface of the wood
13	Flat crooked strip (Steel)	Boothu lodhu	3.00	„	Cutting a turned part
14	Painting stand	Ghodi	5.00	„	Supporting the turned piece while painting
15	Wooden seat	Manchi	2.50	„	Sitting
16	Emery stone	Ojar Ghasiyo	7.50	„	Sharpening of tools
17	Agate stone	Akik	2.00	Cambay	Polishing
18	Scales and weights	Kanta-tola	20.00	Sankheda	Weighing
19	Pliers	Pakkad	5.00	„	Bending and cutting
20	Files	Kanas	5.00 to 20.00	„	Sharpening the tools
21	Brush	Brush	..	„	Painting
22	Polishing Stick	Thikru	...	„	Polishing

IV.2 All these tools used by the artisans of Sankheda are of old and primitive nature. The investment made towards tools and equipments by the artisans at this centre, totals only Rs. 4,000 to 5,000. This investment per unit is hardly Rs. 200 to 300, which reveals that the amount of capital required for the craft is not much. The annual replacement value and repairing charges come to approximately Rs. 50 to 70 per annum per establishment. Size, structure and function of the principal tools are briefly narrated below.

HAND-OPERATED WOODEN LATHE (*Sanghedo*)

IV.3 A hand-operated *sanghedo*, is the simplest form of a lathe, for revolving the object. This primitive but basic traditional tool for turning the article is the first prerequisite. It is fixed on the ground, and the artisan sitting opposite at a convenient distance rotates the article on its axis with bowstring and carries out various processes of sharpening, shaping, lacquering, polishing, etc., with the help of different tools. *Sanghedo* consists of 2 parallel rectangular wooden bars, one of which is fixed to the ground and the other is kept moving so as to adjust the distance between them according to requirement. Each of these wooden bars carry a sharp iron spike or *ari* fixed at the working ends. The wooden peg on the right hand of the artisan is fixed and known as *khila* in local parlance. The left wooden peg known as *bayun* is movable. It is 'L' shaped wooden piece which can be shifted from point to point as per necessity. A heavy stone is placed on the left side of the movable wooden peg to keep it firm while working. A thick long iron bar called *kosh* rests horizontally on both the parallel pegs which serves as a base for cutting tools. The craftsman sits on a seat called *manchi* made of four wooden legs into which strips of wood are fixed at right angles to form a frame which is covered with cotton straps for matting. The seat is placed at a convenient distance opposite the *sangheda*. The article to be turned is fixed on the axle and motion is imparted to it by the craftsman moving forward and backward a bowstring with his right hand. Because of forward and backward movement of the bowstring the article rotates in clockwise and anti-clockwise directions. Various tools for sharpening, shaping, etc., are operated during the anti-clockwise direction only when the bow is in its backward motion. This two way motion implicit in moving the bowstring retards considerably the speed of work. While working on lathe the right hand is engaged in moving the bow and the craftsman holds the turning tool in his left hand and uses his right foot to regulate pressure on the tool.

The artisans themselves usually prepare this simple instrument. They purchase iron spikes to work as *ari* and *kosh*, whereas the wood required to make a *sangheda* is readily available with them from the logs of *sag* wood stored by them for the manufacture of articles. They hardly require the help of outsiders.

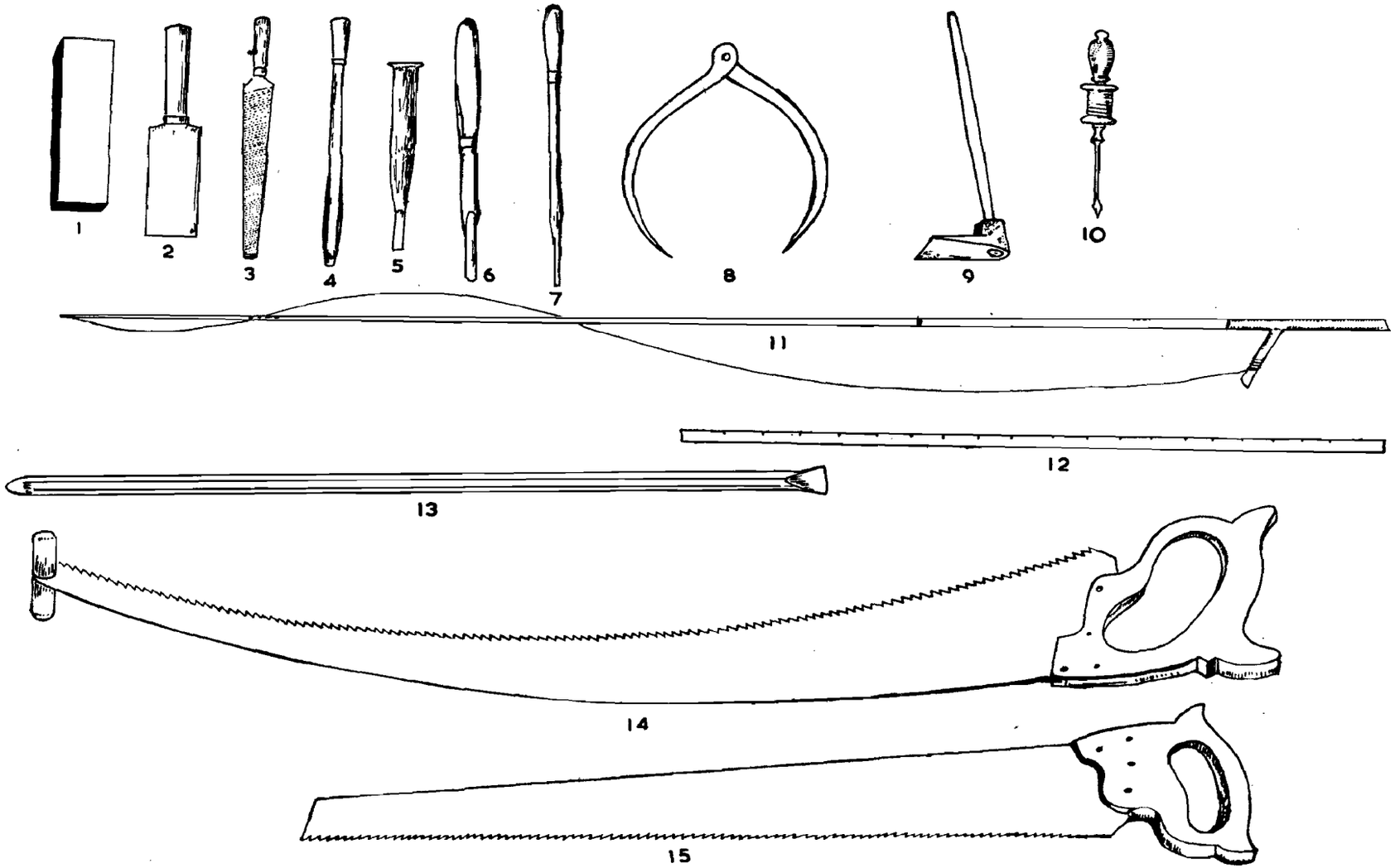
SCRAPERS AND CHISELS

IV.4 Different types of cutting and sharpening tools of ordinary carpenters are used in the craft. The details of some of them are given below.

(i) *Lelo—Lelo*, a tool made of iron, measures about 1¼ to 1½ feet and is fixed with a handle. It has a sharp semicircular gouge (edge), which, when pressed against the revolving wooden object, converts the original rough surface of the article into smooth cylindrical form. Thus it is used for shaping the article. It lasts for 5 to 6 years and costs Rs. 4 per piece. The edge requires to be sharpened every month for which the blacksmith charges 50 paise. The *lelo* has gouges of different sizes the use of which varies according to the nature of the article to be made.

(ii) *Patvanu—Patvanu* is a chisel having a small hook bent at right angle with a sharp cutting edge. It is used for making the inner side of the article hollow. It measures 1 to 1½ feet, and made by local smiths. It costs Rs. 2 per piece. It also requires periodical sharpening of the edge which is carried out by blacksmiths.

(iii) *Veraki*—It is a pointed chisel made by the local smiths and costs Rs. 4. It is used for making grooves. It lasts for 10 to



1. Ojar Ghasiyo (Emery stone); 2. Farsi (Chisel); 3. Kanas (File); 4, 6. Lelo (Scraper); 5. Chhini (Chisel with a smaller blade); 7. Veraki (Scraper); 8. Calipers; 9. Vanslo (Adze); 10. Shardi (Drill); 11. Dhandhodi (Bowstring); 12. Gaj (Foot-ruler); 13. Kosh (Iron rod); 14, 15. Karvat (Saw)

FACING PAGE 20

15 years and is periodically sharpened by the local blacksmiths.

(iv) *Vinjanu*—It is a flat edged chisel for smoothing the rough surface. It is made by the local smiths and costs Rs. 4. It lasts for 8 to 10 years.

BOWSTRING (*Dhandhodi*)

IV.5 *Dhandhodi* or bowstring used for rotating the wooden piece is made of a slightly curved stick of cane 4 to 5 feet long to which a cotton string is fastened at both ends. On the one end it has a clip like contrivance which, when pressed, stretches the string. The string is wound by a single turn to the wooden piece before it is taken up on *sangheda* for turning. It is held in the right hand of the artisan. The bow with its forward and backward movements rotates the wooden piece on the axis of the lathe. Different tools are applied to the turning piece for shaping, sharpening, etc.

FOOT-RULER (*Futpati*)

IV.6 Carpenter's ruler is used for measuring length, breadth, etc., during the entire process. The artisan is required to take measurements from time to time right from cutting of the wooden logs to the fitting of the finished products. Ordinary ruler of wood costs about Rs. 1.50

CALIPERS (*Compass*)

IV.7 A pair of iron calipers is an indispensable tool to measure the diameter of the article on lathe from time to time until uniform diameter is obtained throughout. It thus serves as guide lines during shaping the article in cylindrical form. The calipers are made of ordinary iron strips by the blacksmiths. They vary in size which ranges between 6" and 1'-5", and costs from Rs. 1 to 2.50 according to the size and quality.

HAMMER (*Hathoda*)

IV.8 Hammers of various shapes and sizes are used. It has a smooth rounded wooden shaft fitted into a circular hole of the stroker. It is mainly used for beating tinfoil to reduce it in powder form. A small hammer is used for fixing nails during fittings. It costs from Rs. 3 to 12 according to the size and quality. It can be purchased from the local market.

HANDSAW (*Karvat*)

IV.9 Handsaw is used for cutting the teak wood logs into the required size. It is an ordinary carpenter's saw. It consists of a thin blade of steel with an edge bearing a series of sharp teeth. A handsaw of small size costs Rs. 6 while of big size costs Rs. 12. However, prices vary according to quality. It is purchased from hardware merchants. A handsaw of big size is operated by two persons while that of small size by one man.

ADZE (*Vanslo*)

IV.10 Pieces of wood are given rough shape before mounting on the lathe for turning. *Vanslo* or adze is also an ordinary tool in common use by a carpenter. It has an axe with sharp edge fixed at right angle to the handle. It is used to cut away the irregular surface and other superfluous wood to bring it in cylindrical shape. It is locally manufactured by blacksmiths and costs about Rs. 8 to 12, and lasts for about 10 years. Periodical sharpening of edge is also done by local blacksmiths.

DRILL (*Shardi*)

IV.11 A small hand-driven drill is used for boring holes in the wood for fixing iron bolts and iron nuts and hooks, etc. It is mainly used in fitting finished articles. A hand-operated improved drill is made of pointed iron rod and wooden handles. The upper handle and the mid-handle help the operator to hold the drill firmly in the desired position, while the third handle, connecting the rotating wheel of the drill, facilitates the rotation of the turning wheel which, in turn, rotates the drill which is mechanically connected with the rotator. The crude hand-operated drill which is also used instead of the mechanical device for rotating, has a grooved middle handle over which a cotton string is wound three or four rounds with both the ends loose for holding. When the ends of the string are drawn alternatively, it rotates the drill. Two persons are required

in this operation—one for drawing the string and the other for holding the drill firmly in a required position.

PLANE (*Randho*)

IV.12 *Randho* or plane is used for smoothening the surface of wood and also for reducing the thickness of the pieces to required size which cannot at times be done by a saw. It makes the surfaces even. An ordinary plane with wooden body costs Rs. 5 to 14 according to quality, but one with a steel body costs Rs. 25 to 30. The edges of the plane are periodically sharpened.

PAINTING STAND (*Ghodi*)

IV.13 After an article is given a desired shape on the lathe and the water colours for background are applied to it, it is taken off the lathe for painting. Designs are then painted with *harkalai*. While painting, the article which is cylindrical is supported at one end on a wooden painting stand or *ghodi* and the other end kept in the artisan's lap or on the ground. This enables the artisans to draw the design easily and freely. It is made locally by the carpenter, and costs about Rs. 5.

WOODEN SEAT (*Manchi*)

IV.14 The artisan while operating the lathe for turning the article, sits on a low wooden seat meshed with cotton straps which is known as a *manchi*. The cost of the *manchi* is about Rs. 2.50.

EMERY STONE (*Ojar Ghasiyo*)

IV.15 Emery stone is used for polishing and sharpening the tool edges. Its costs Rs. 7 to 8 per piece.

AGATE STONE (*Akik*)

IV.16 After the tinfoil designs are drawn with *harkalai*, the article is again mounted on lathe and polished by an *akik* or agate stone which gives it fine polish of exquisite beauty. The designs which appear dull white before polish turn into glittering white after it is rubbed with agate. *Akik* or agate stones are available in plenty at Cambay and cost Rs. 1.25 to 2, according to size.

PLIERS (*Pakkad*)

IV.17 Iron pliers are small pincers with firm straight jaws used for bending and cutting small strips of metal sheets. They are available locally from hardware merchants. The most popular lengths in use vary from 6" to 10" and cost between Rs. 2.50 to 5.

FILES (*Kanas*)

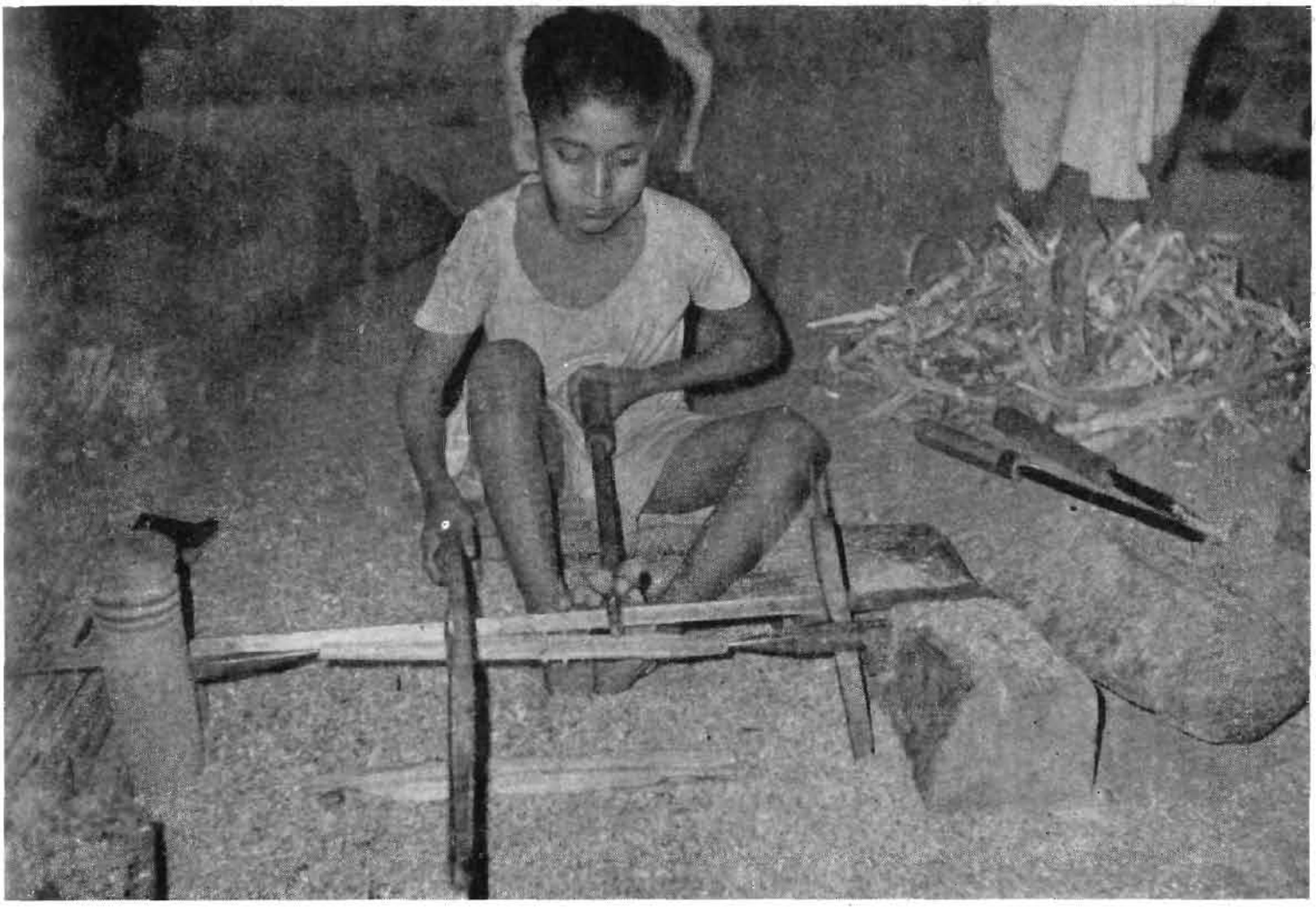
IV.18 Files of various shapes such as the *tikoni*, half round, *gol* or round, square and flat are used to sharpen the tools, teeth of the handsaw, and other tools. Its length varies from 10" to 16" and the width from $\frac{1}{2}$" to $1\frac{2}{3}$." They are available from the local tool dealers in the market. The prices of files vary from Rs. 5 to 20 according to their quality and size.

INDIGENOUS POLISHING STICK (*Thikru*)

IV.19 *Thikru* or an indigenous polishing stick which works like a sandpaper is locally prepared by the artisans themselves. It is prepared from the mixture of glass powder and lac waste. Pieces of broken glass are collected from streets and reduced to powder by pounding in mortar with pestle. It is mixed with waste lac in the proportion of 2:1, i.e., 2 parts of lac and one part of glass powder. This mixture is boiled on stove till it becomes homogenous. This mixture is then hammered when hot and rectangular sticks about one foot long, one inch wide, and about $\frac{3}{4}$ inch thick are prepared. Like sandpaper, it is also used for polishing the rough surface of the article by pressing it against the rotating object.

BRUSH

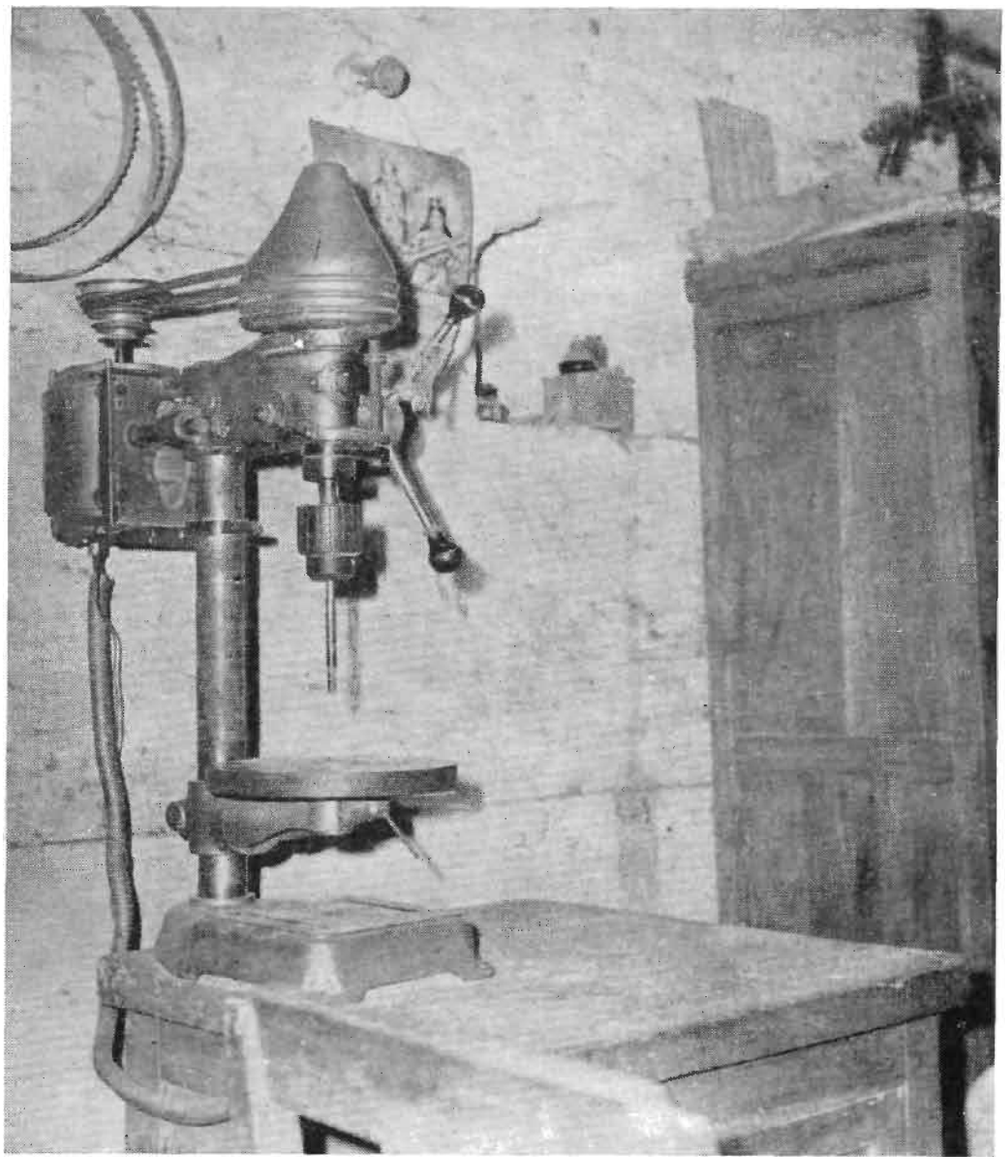
IV.20 Brush is required for painting designs on the article to be manufactured. Some artisans purchase the painting brush readily available in the market, while some make it themselves. This indigenous brush is prepared specially from hairs, obtained from a squirrel's tail. The artisans obtain them from Vaghris, a pastoral community. The hairs are inserted in the hollow tip of a vulture's feather which is also obtained locally. A thin wooden strip is then inserted in the hollow tip for grip. The



Working on 'Sangheda'—a hand-operated lathe

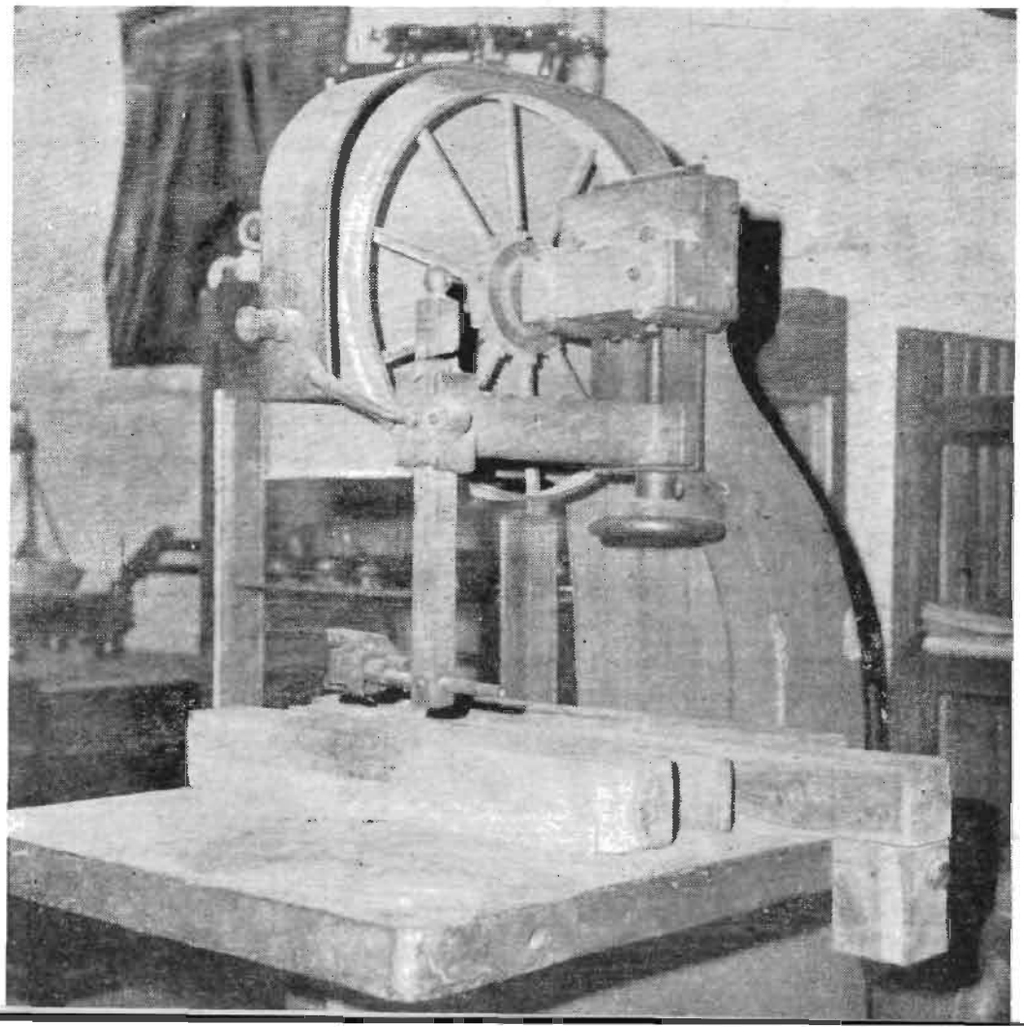


Electrically operated 'Sangheda' at Mahuva

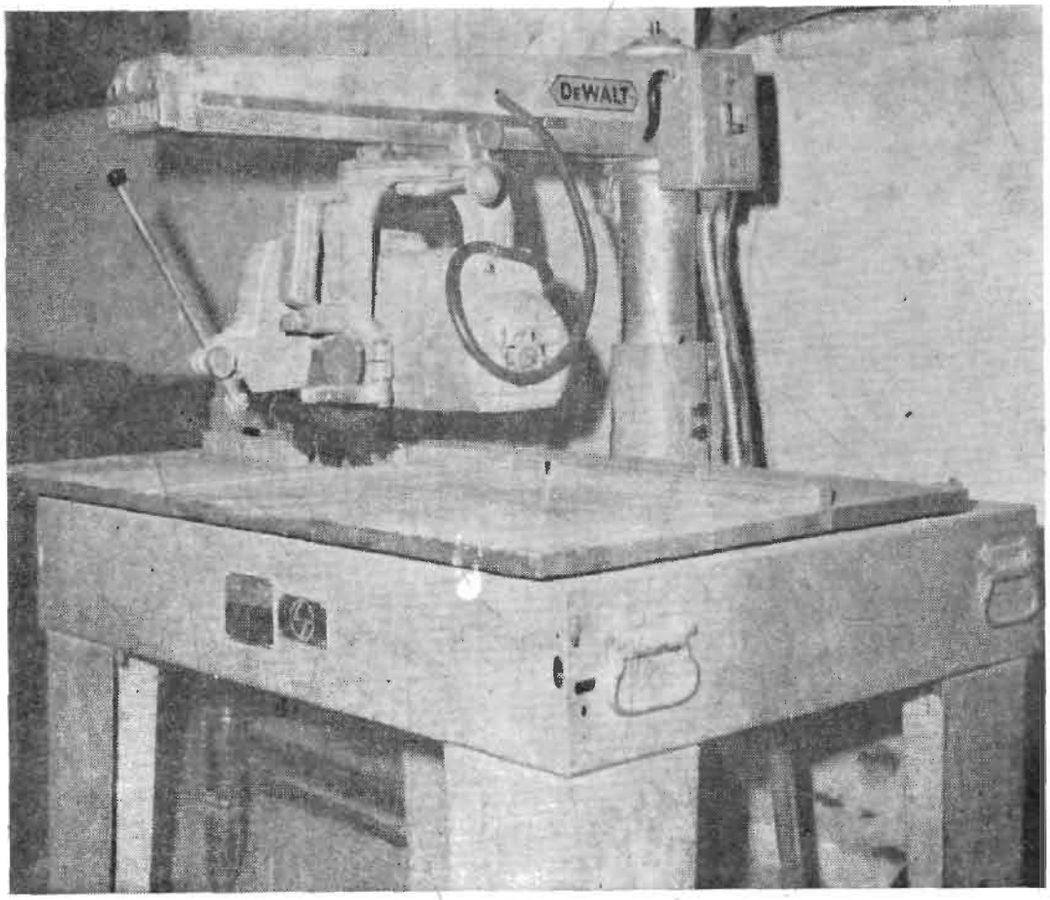


Drilling machine

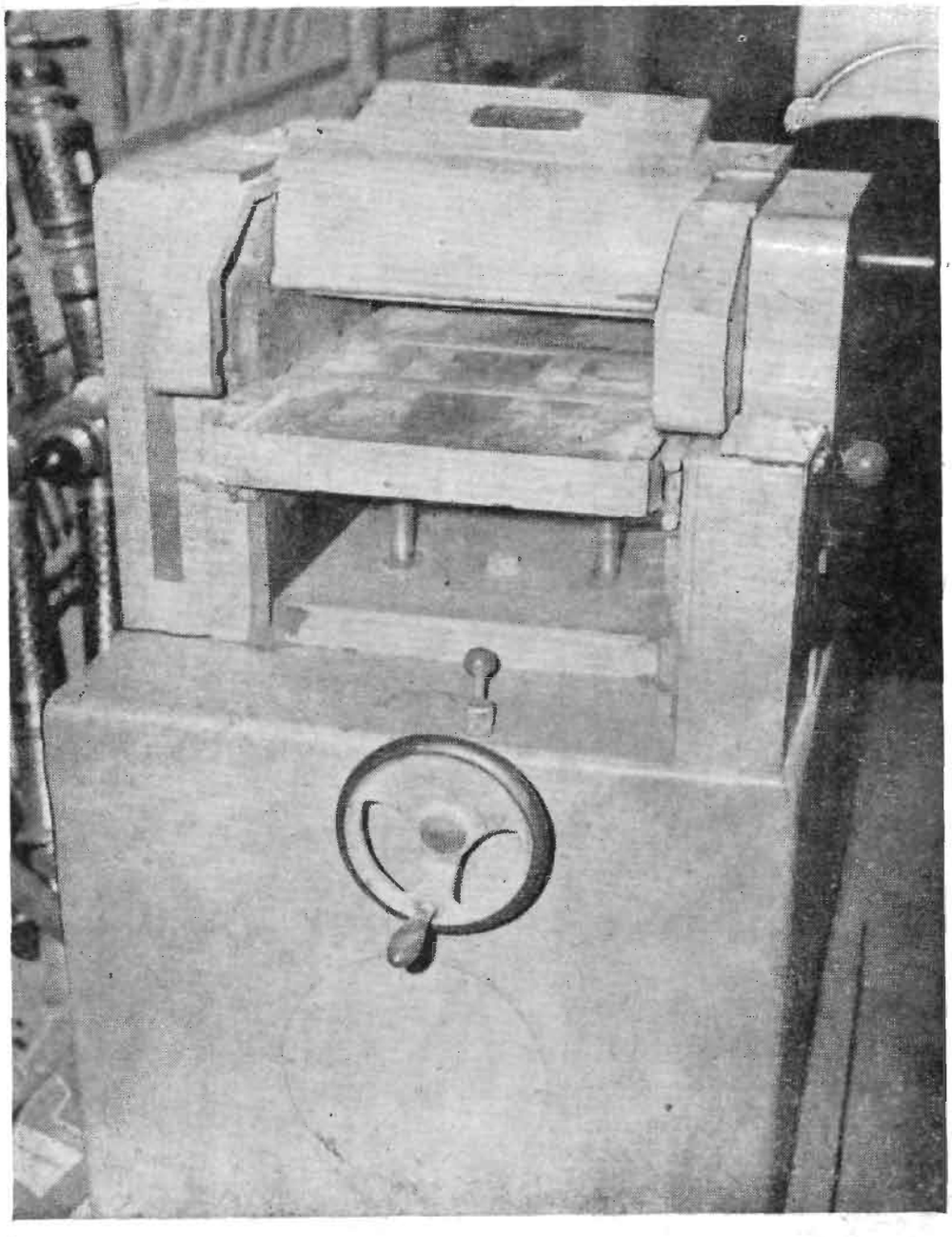
Mechanised tools installed at common facility-cum-production centre, Sankheda →



Band saw



Power saw machine



Planing machine



Pounding of stick lac

artisans say that such a brush made from squirrel's hair is more suitable in painting designs with *harkalai* as it is soft and smooth and does not become stiff or sticky.

IV.21 The craft is practised at Sankheda with the traditional tools and appliances discussed above. If they gradually change over to improved tools, it is likely that the output per artisan can be increased and their earnings raised to that extent. With a view to assist the artisans in availing themselves of the facility of improved tools and equipments, and acquaint them with their use, a common facility-*cum*-production centre started at Baroda by the Government has been recently shifted to Sankheda. This centre has the following electrically operated appliances.

STATEMENT VI

Modern improved tools and implements

Sl. No.	Particulars	Power	Purchase price (in Rs.)	From where purchased
1	2	3	4	5
1	Marter Heavy Duty 18" Band-saw with motor and starter	2 H. P.	1,715.00	India
2	Pelican (Indian) Wood Thickness Planing machine 12" x 7" complete	3 H. P.	2,828.00	,,
3	'Marter'-combined belt-Centre machine	½ H. P.	720.00	,,
4	D-Watt Power Saw machine with motor	,,	3,384.50	,,
5	Marter Standard Duty ½ capacity. Drilling machine and with ½ drill circle	,,	612.10	,,
6	Wood Turning lathe 4' Ashok with Motor and Ribco circle 6½" x 3"	,,	1,050.40	,,
7	Master Floor Model 8' with wood working lathe, motor, push-button and starter	1½ H. P.	2,215.00	,,
8	Emery	,,	300.00	,,

IV.22 The facility centre has started working and the artisans are given the benefit of using improved tools by paying nominal service charges. As the artisans are not accustomed to its use, they find it difficult to work on an electric lathe. The artisans who are since long accustomed to work on traditional tools will take time to adjust themselves to the working of these tools. If the younger generation is trained from the beginning, it is likely that they would prefer improved tools to traditional ones. Some of the artisans feel that turning and lacquering obtained by traditional methods are artistic and delicate and the desired results cannot be obtained on an electric lathe.

B—Technique

IV.23 The lac-turnery practised at this centre is unique as rich effect is produced by tinfoil ornamentation under transparent lac coatings. In this higher flight of lac-turnery utmost care is taken by the artisan at all stages of production. The technique is described in three parts viz., (i) preparation of coloured *battis*, (ii) making *harkalai* and (iii) wood turning and ornamentation.

(i) Preparation of Coloured Battis

IV.24 The artisans do not purchase shellac from the market. They with the help of family labour prepare coloured *battis* or sticks from the stick lac. This process can be divided into two parts (i) preparing transparent seed-lac from crude lac (stick lac), (ii) preparing coloured lac or *battis*.

(*a*) *Making of Seed-lac*

IV.25 Stick lac of *kusum* tree which is best in quality and durability is obtained from the traders. They are spread on the flat ground and dust and dirt are first removed, and the encrusted twigs are broken to separate resinous crust from wood. The wood is weeded out and the resinous crust collected in a tub. Then about 5 kg. of resinous crust is soaked in about 25 liters of cold water and kept for one night. Next morning the water is removed and the soaked lac is beaten gently in a wooden mortar with wooden pestle, so that the red colouring material would come out. This process is repeated three or four times by adding fresh water at each washing. At each washing the impurities like pieces of stem, bark, etc., are removed. It is then spread on a piece of cotton and dried. When the lac is dried the impurities are weeded out.

IV.26 This lac is again soaked in the solution of washing soda and beaten gently in wooden mortar and pestle to remove the colour ingrained. This process of washing in the solution of washing soda is repeated twice or thrice till the lac is entirely free from colour. The red solution of lac washings (lac-dye) is not used for any purpose. Lac is again washed with fresh water and spread over a piece of cotton cloth and allowed to dry. When the lac is dried the impurities are again weeded out and fine transparent granular lac is obtained. This is called seed-lac.

IV.27 The pure transparent seed-lac is boiled in water in a broad and round based earthen vessel over a kitchen hearth till the seed-lac completely melts and becomes a pasty mass. This pasty mass is taken out on a wooden stick 1½' long and cold water is poured on it. When it becomes tolerably hot, it is pressed and pulled with both the palms for half an hour to take out the excess moisture. The homogeneous paste of lac is then kept between twofolds of cotton cloth and beaten with a wooden hammer for about an hour to make *rotalo* or cake. The cakes are stored for use. About 250 grams of transparent lac is obtained from 1 kg. of stick-lac.

(*b*) *Mixing of Colour*

IV.28 Good quality colour of I.C.I. is mixed as and when required in the transparent shellac cake thus prepared. Coloured lac sticks or *battis* of different colours are made by heating the shellac over a charcoal fire until it is rendered plastic. The plastic lac is placed on a wooden slate and a small quantity of colour is deposited within a hollow formed on the surface, which is closed over and the lac is continuously hammered and pulled out with hands until the colour is uniformly mixed. The colour is mixed gradually while hammering and pulling. By continuous hammering, the mixture gradually assumes the form of a rubber. The quantity of colour to be added depends on the shade of colour wanted. Generally about 5 grams of colour is mixed in 200 grams of lac. After colouring, the paste is allowed to cool. It is then rolled to form a stick of ¾" diameter and pressed flat with palm so as to form flat strips or sticks of about 1" to 1½" in breadth and 3/8" to ½" width, which are cut into pieces 9" long. These are known as *battis* or coloured lac sticks. *Battis* of various colours are thus made.

(ii) MAKING OF HARKALAI

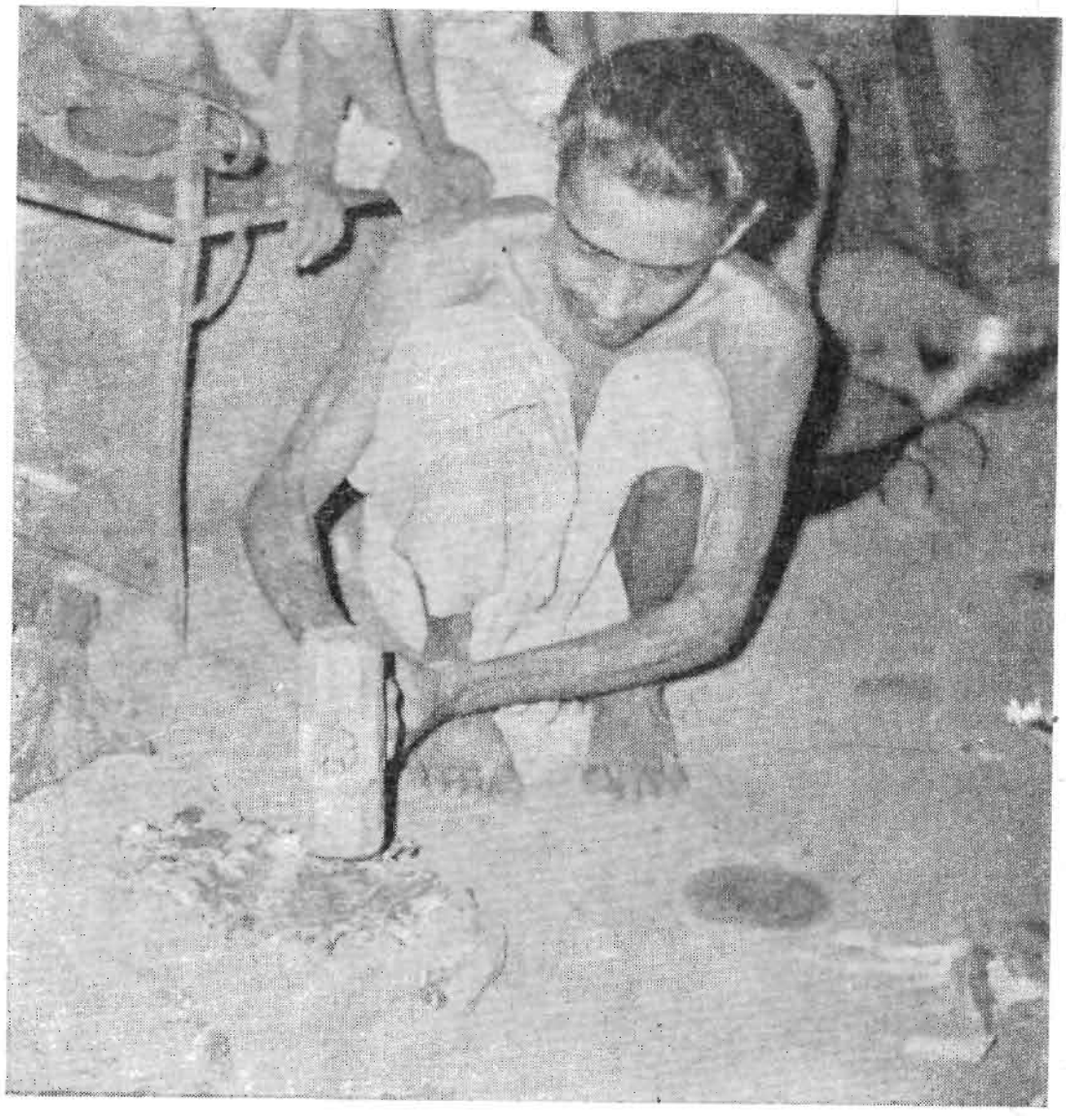
IV.29 *Harkalai* is the silvery white paste prepared from tinfoils. It is used in painting designs underneath the lac coating. About 250 grams of tinfoils are beaten continuously on a stone with a hammer about 2 lb. in weight, till thin tin sheets are obtained. About 5 *tolas* of hot *saras* (glue) is placed between the layers of these thin sheets and again hammered till the tin and *saras* (glue) are mixed homogeneously. This hammering is done by two persons alternately and swiftly for about one hour. A small quantity of hot water is poured on the hammer, if the pasty mass sticks to it. If the tin-glue mass becomes very hot while beating it is allowed to cool for about ½ hour and again beaten. This hammering continues till the tinfoils are splitted into tiny particles which can dissolve well in water. The beaten mass is spread on stone and allowed to dry. This dry cake of *harkalai* thus formed is stored for use. Required quantity of *harkalai* is taken in a brass *katora* and cold water is added to it. Within an hour the tiny particles of *harkalai* dissolve in water and pigment for paint becomes ready. Fresh quantity of *harkalai* paste is prepared everyday to get good shining.

(iii) WOOD TURNING and ORNAMENTATION

IV.30 The various stages of wood turning and ornamentation are described below.

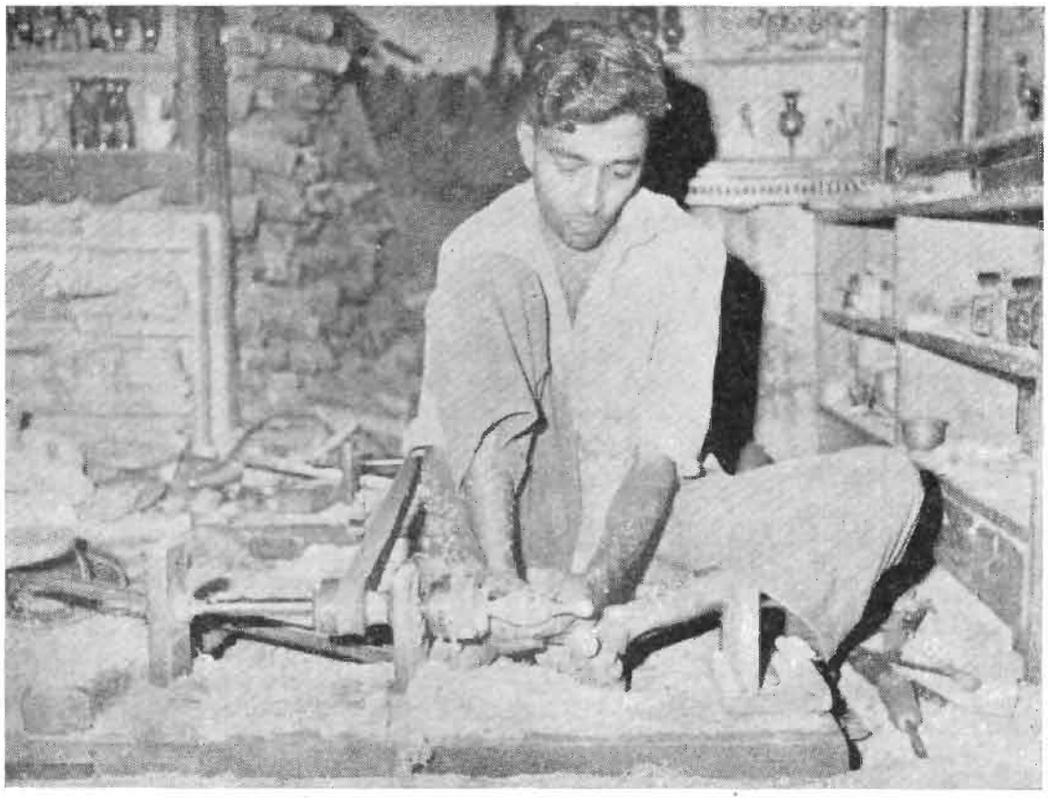
(a) *Cutting of Wood*

IV.31 The first operation the artisan undertakes before turning the wooden pieces on *sangheda* is cutting of wooden logs into pieces of required size. The wooden logs are cut according to required size with the help of a handsaw. The cutting operation requires



Converting tinfoils into harkalai

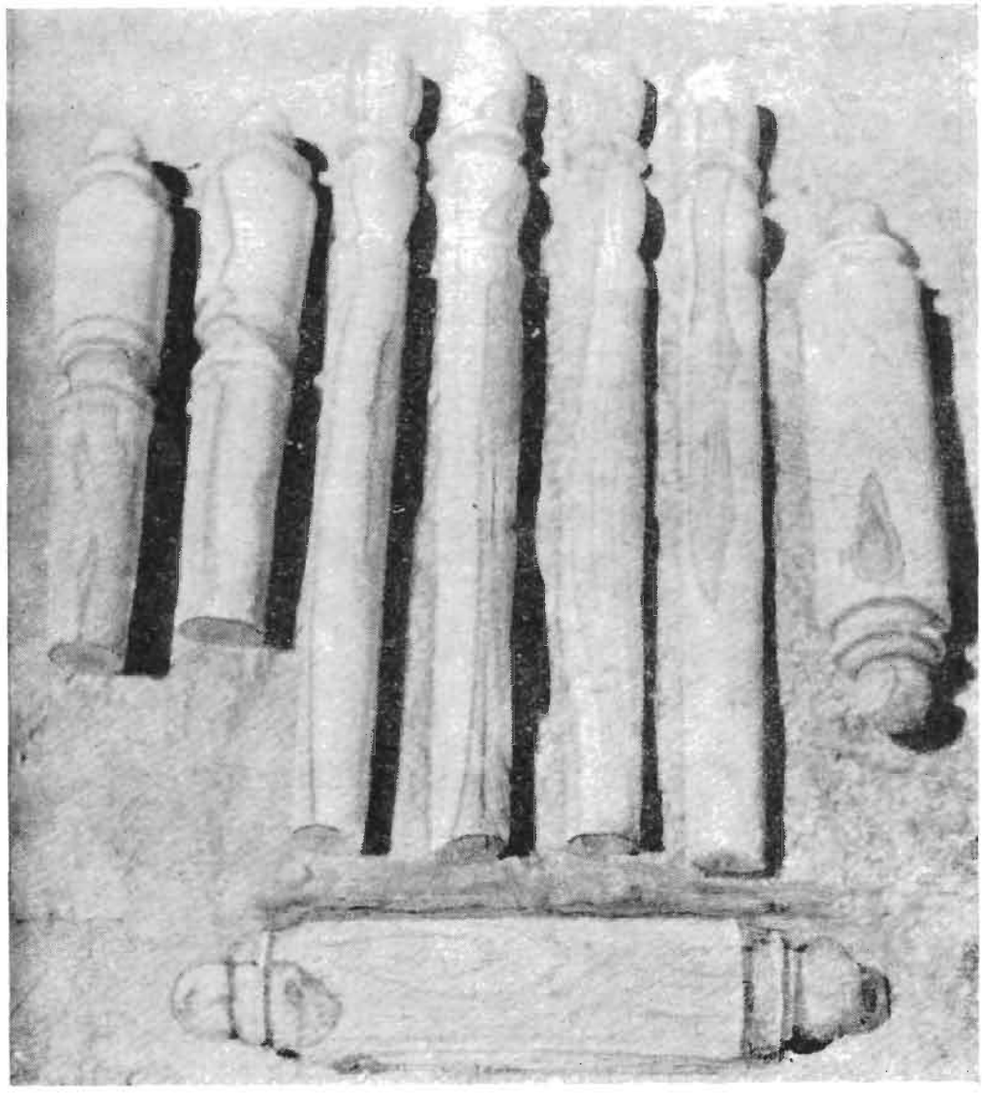




Artisans working on
Top: Hand-operated 'Sangheda' Bottom: Electrically operated 'Sangheda'



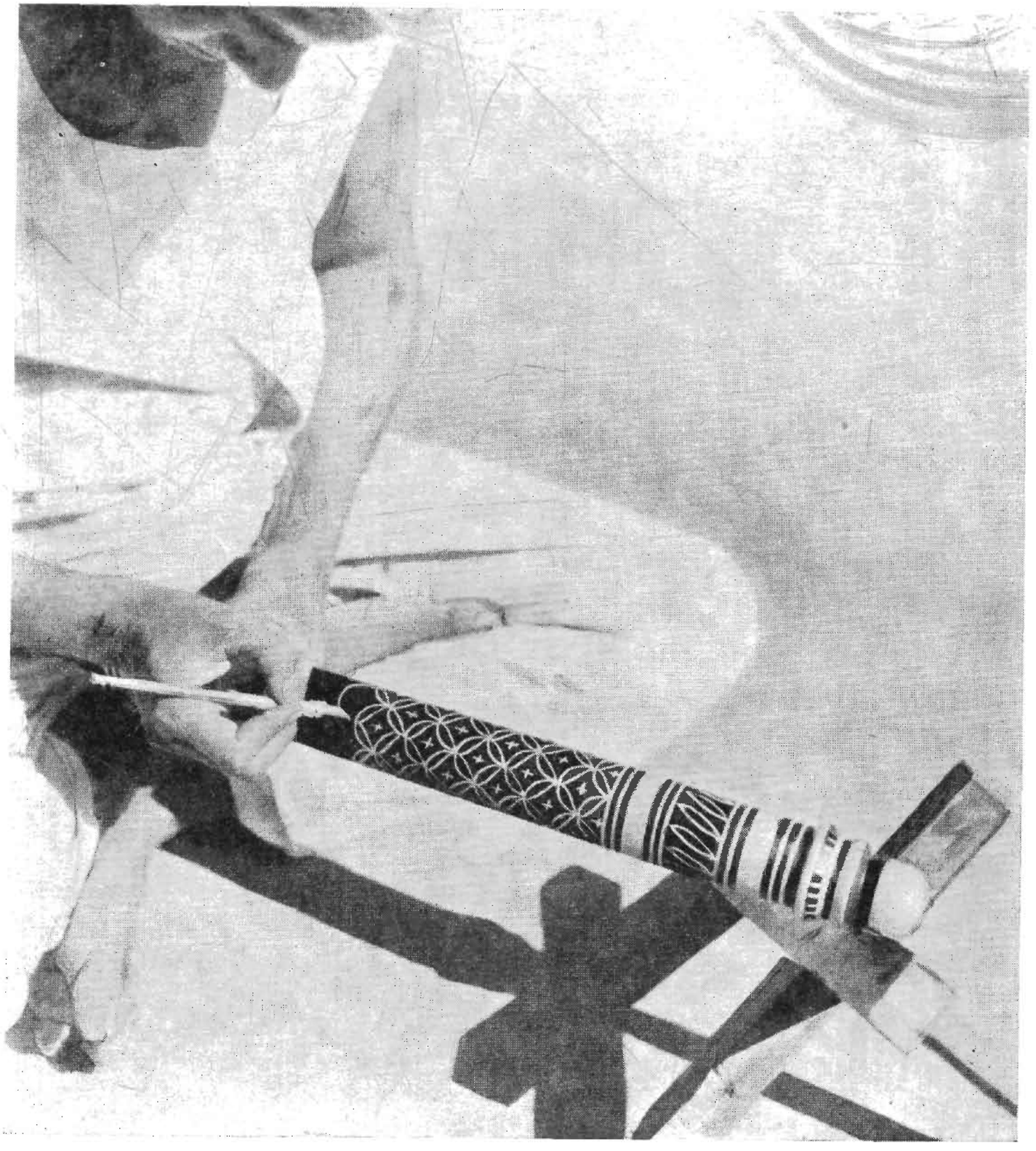
Turning and finishing



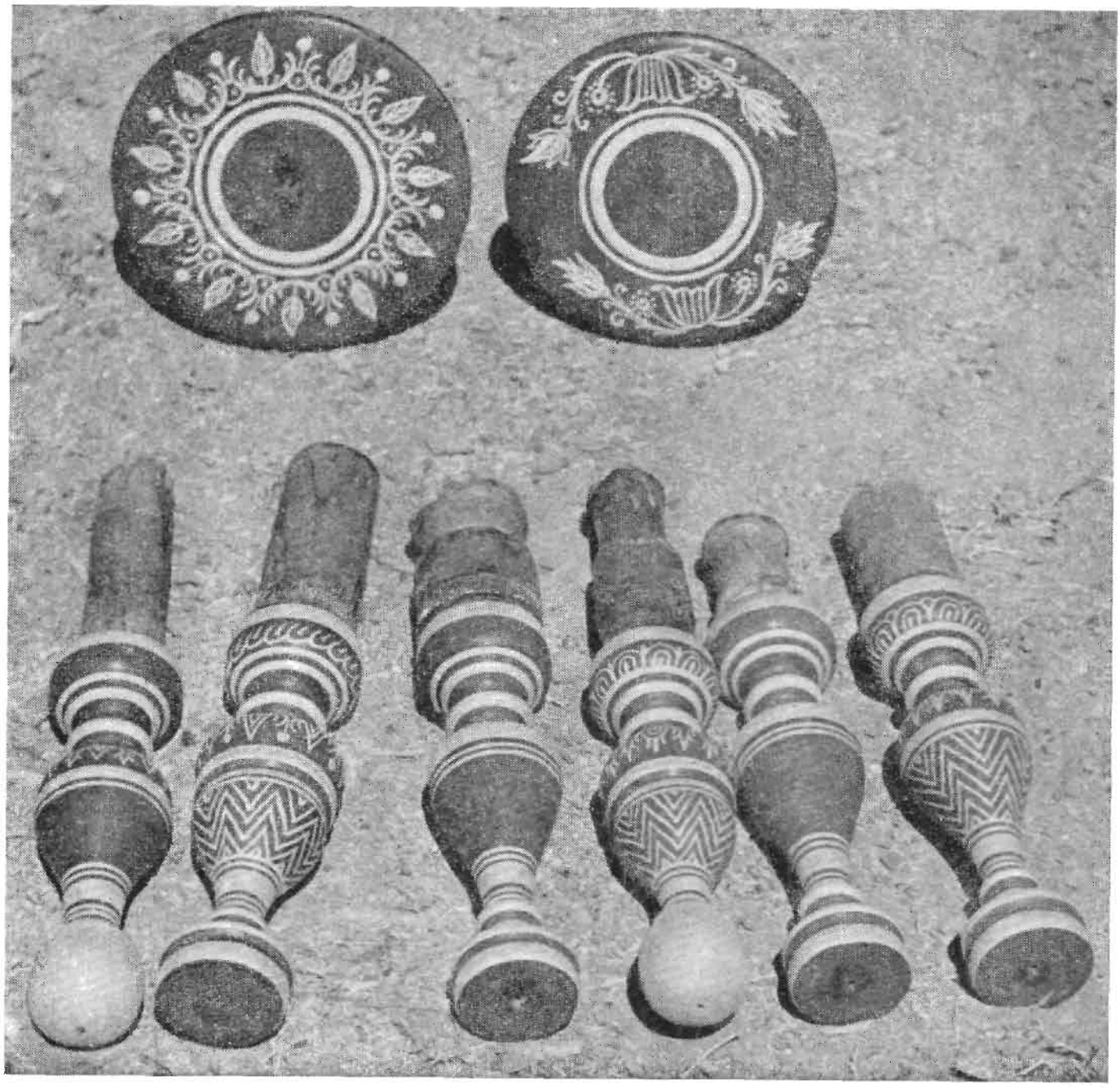
Shaping the logs of wood in appropriate forms



Drying after application of background colour



Painting designs with harkalai



Painted pieces ready for lacquering



Applying transparent lac over painted design



Fitting different pieces to make a sofa-set

understanding of mathematical calculations so that the minimum material is wasted and the resultant pieces are used profitably. The markings are done by the skilled artisan on the wood for cutting according to the size and shape of the article to be manufactured.

IV.32 Generally, turning is done on spherical and cylindrical wooden articles rather than on flat ones for which an altogether different process is undertaken. Round wooden stems called *vali* are, used for making a turned article. Usually *vali* of 3"–6" diameter is selected and cut into pieces of required sizes. Even girth is obtained by scraping them with an adze, before passing on for turning on lathe. All the knots and projections on wood are removed by means of an adze and cracks are filled in with *lapi*, a paste prepared of waste lac and clay.

(b) *Turning of Wood*

IV.33 The wooden log cut and shaped as stated above is fixed between the axis of *sangheda* or a hand-driven wooden lathe. Oil is applied to the pointed ends of the axis as lubricant. The turning or the rotating operation of wood is done with the help of bow-shaped instrument called *dhandhodi*. The *kharadi* (turner) sits on *manchi* placed on the ground opposite the *sangheda* by folding one foot and putting another firmly hard on the framework so as to gain a good hold over the article. The string of the bow is twisted and wound round the right hand side projecting end or on a grooved wooden log fixed to the article to be turned. Pressure is applied to the clip of the handle of the *dhandhodi* so that its string stretches and the tool is brought into working position. Water is frequently applied to the string of the *dhandhodi* to keep it trim. A forward and backward movement of the *dhandhodi* causes the wooden piece to turn rapidly. The craftsman holds the cutting tool in his left hand and presses over the rotating object. To ensure an effective pressure, the craftsman uses the big toe of left leg and the heel of the other to give support to the left hand.

IV.34 By skilled manipulation in the application of pressure of the sharp edges of the scrapers and chisels over the surface of the wood, the craftsman transforms the article into required cylindrical shape with designs grooved in it. While turning, the diameter or girth is measured by means of calipers from time to time to ensure the uniformity in the desired girth. During the entire process the artisan applies his sleight of hand, dexterity of touch and skilled manipulation in increasing and decreasing the pressure on the point of the cutting tool for obtaining the desired pattern and shape.

(c) *Smoothening the Turned Piece*

IV.35 When the uniform diameter or girth is assured, *thikru* or indigenous polishing stick is pressed against the surface of the rotating piece. This process smoothens the article due to tiny glass particles in the stick. If there is a hole, cavity or a crack in the piece it is made good by filling *lapi* in it. *Lapi* is also prepared by the artisan from waste lac and clay. A whitening powder is then applied. A cotton rag is soaked in the wet solution of whitening powder and held over the rotating object. It is then polished with sandpaper by pressing its right side over the article turning on lathe. This removes scratches, makes it even and smoothens it perfectly and thoroughly.

(d) *Colouring the Background*

IV.36 The article is placed on lathe and water colours especially light red or blue or green are applied with the help of a piece of cloth or by brush. After applying water colours, the articles are taken off the lathe and allowed to dry on jute cloth spread on the floor. It is this colour which forms the background on which designs of tinfoil paste or *harkalai* are drawn or painted.

(e) *Tinfoil Ornamentation*

IV.37 Designs are painted on the dry and coloured surface with *harkalai* a specially prepared semi-liquid pigment of tinfoil mixed with glue. The circular lines and borders are painted on the article by rotating it on lathe and holding the brush immersed in *harkalai* at the required spot. The other designs are drawn free hand by the artisan who generally produces traditional designs without breaking the symmetry. After supporting one end

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of the article on *ghodi* or a wooden stand and the other in lap of the artisan or on ground, the artisan paints free hand designs with a brush immersed in *harkalai*. The traditional designs mostly drawn are curves, dots, simple lines and crosses, whereas birds, animals, flowers, leaves and plants are the modern designs.

(f) *Polishing with Agate*

IV.38 After the designs are drawn with *harkalai*, the article is mounted on lathe and polished with agate stone of *lasania* variety, i. e., Carnelian. The stone is pressed over the rotating article. By rubbing with agate, tin emits shine and turns the dull whiteness of *harkalai* into brilliant silvery gloss.

(g) *Application of Lac*

IV.39 After polishing with *akik* or agate stone, lac stick of matching colours desired are applied on the article on *sangheda*, by low temperature heat treatment, maintained by keeping burning charcoals below the lathe. Lac *batti* is gradually applied to the rotating object. Lac of different colours is thus coated according to the colour scheme. The silvery white designs underneath the coatings of transparent lac of different colours appears golden yellow and gives an attractive and rich effect.

(h) *Final Polish by Kevda Leaves*

IV.40 After lac coating, the article is polished by folded *kevda* leaves dipped in groundnut oil. The artisan presses the *kevda* leaves against the rotating object. This final polish to the article gives a brilliant shine which is permanent. The finished articles under the layer of transparent lac becomes an object of exquisite beauty which is at once the pride of the artisan and the owner.

(i) *Fitting*

IV.41 The various parts of the finished goods are sent for fitting to the carpenter who has specialised in the job. The process is carried out with simple tools. Utmost care is, however, taken by the artisan to see that no damage is done to the lac coatings. For even the slightest damage to the article spoils its appearance and depreciates its value as it cannot be removed. After the joining of the various parts, the finished product is ready for sale.

C—Art Conception

IV.42 The craft of lac turnery is practised all over India, but lac ornamentation varies from one region to another. The craft as practised at Sankheda is quite distinct in art and ornamentation from that found at other centres in India. Chief art conceptions found in lac-turnery classified by Sir George Watt hold good even today as there is hardly any change in it. These classifications are narrated below in brief for giving a comparative picture of this craft.

The art conception in Indian lacquering can be classified as (1) plain and (2) ornamental.

1. PLAIN LACQUERING

IV.43 In plain lacquering the article is either uniformly coloured in one shade or rings and bands are made in different colours. The process does not involve intricate steps as in ornamental lacquering. It is perhaps one of the most ancient and widely known method of wood ornamentation in India. The art of plain lacquering is popular all over India. In Gujarat, plain lacquering is practised at a number of places among which Idar, Junagadh and Mahuva are the well-known centres.

2. ORNAMENTAL LACQUERING

IV.44 The ornamental lacquering of wooden articles on the other hand demands intricate and artistic manipulations on the part of the craftsman. Watt has classified ornamental lacquering into three types (i) *Abri* or cloud work, (ii) *Atishi* or fire work and, (iii) *Nakshi* or pattern work.

(i) *Abri or Cloud Work*

IV.45 The process seems to have been called *abri* from the word *abhri* derived from *abh* meaning cloud. In *abri* or cloud work the wooden article when given the required shape and polish, is given a coat of yellow or any lighter lac colour. Then the operator applies lac stick of red or orange colour which is exceptionally hard and sharply pointed and sometimes soaked in water or in

oil. By holding the red hard stick loosely in the hand and touching the revolving object interruptedly, numerous irregularly shaped spots are imparted. Black borders are communicated to the red spots by using black stick of soft texture. By various modifications of the process noted earlier, the craftsman produces many pleasing effects that has given rise to the name *abri*. This type of ornamentation is locally known as *abri* or *dana* work and commonly used on table and pedestal lamps in Udaipur, on powder and jewellery boxes in Hoshiarpur (Punjab), on pen-holders in Channapatan (Mysore) and on various items of kitchenware in Amroha (U.P.).

(ii) *Atishi or Fire Work*

IV.46 This type of ornamention differs from others in that after the article is turned and smoothed, designs of dots, crosses, flowers, creepers, *swastika*, etc., are painted by powdered tinfoil mixed with glue and water colours. A coat of red or yellow dyes mixed with pure lac is then applied so that the lacquer effect becomes transparent and gives a beautiful glow to the colours and designs painted beneath. It is then polished by placing it on a lathe by *akik* or agate stone which produces so much heat that the lac becomes still more transparent. The ultimate transparency thus produced excels any other method of ornamentation, and creates a fiery effect. It is hence called *atishi*. The tinfoil decoration is not restricted only to uniform coating or dots. Floral designs, figure work and geometrical designs also have been found to be much popular. The lacquered articles manufactured in this style are cradles, sofa-sets, table and pedestal lamps, conventional toys, trays, cupboards, teapoys, wall-plates, etc., which usually bear traditional designs.

(iii) *Nakshi or Pattern Work*

IV.47 This work is done in two styles (a) Etched *nakshi* and (b) Scraped *nakshi*.

(a) *Etched Nakshi*

IV.48 In this class of ornamentation, an article is given lacquer coatings of different colours one over the other. Usually the first layer is yellow, the next red, followed by green and the final and the upper most layer black. But any combination of colours can be laid one over the other. With a fine chisel the lac coated surface is then etched to bring out the required colour from these coatings. Etching is thus resorted to bring out the required design in appropriate colours. In this way, upon black background, yellow stems and leafstalks, green leaves and red flowers, with yellow and partly coloured veins and shadings can be worked out in an intricate but novel manner.

Today this art is practised in Hoshiarpur (Punjab) and Patna (Bihar).[1]

(b) *Scraped Nakshi*

IV.49 In this style the article is first oil-varnished. As the article revolves on the lathe, lines, loops, or patches are scraped off to work out the design in view and lac *batti* of requisite colour is applied so that the appropriate colour is taken by the portion scraped off. The rest of the portion remains unaffected by lac *batti* due to the coating of oil-varnish. The article is again oil-varnished and further portions scraped off when these in turn are lacquered by another colour. The process is repeated time and again, until the floral and other designs or pictures have assumed colours appropriate to the design. This art was formerly popular in Hoshiarpur when Muslim artisans engaged in the craft had not migrated to Pakistan.[2]

DESIGNS

IV.50 The artistic lacquered articles of Sankheda are distinct from those found elsewhere. The style of lacquering and the items manufactured differ from those available in other regions as regards colour schemes, designs and lacquer finish. Mostly folk-designs—floral and geometrical—predominate. The items most popular are cradles, *bajoth*, teapoys, trays, dishes, cupboards, flower-vases, bangle stands, table and pedestal lamps, and a wide

1. *Marg*, A Magazine of the Arts, Vol. XIX, No. 3, June, pp. 19–20, 1966
2. *Ibid*,

variety of some of the finest pieces of furniture including chairs and sofa-sets. The items combine in themselves a synthesis of floral and geometrical designs drawn with tin and glue paste under lacquer finish that gives a fiery effect, for which *atishi* style of lacquering is famous and has attained highest perfection at Sankheda.

The designs common on all types of lacquerwares are *jali*, double *jali*, *minda*, *chokdi*, *tapka*, simple lines and crosses, straight and zigzag lines, birds, animals, leaves, plants, flowers, creepers, etc.

IV.51 Flower-vases made in a bottle or cylindrical shapes have the designs of flowers, creepers and other floral pattern which are painted freehand by the artisans. The outer surface of the powder bowl and the lid are ornamented with geometrical and floral designs. The artisans reproduce any design shown to him by the customer while placing orders.

IV.52 For the evolution of new designs, the artisans require to be guided according to demand. The common facility-*cum*-production centre should procure new designs from the design centre at Bombay, as well as from the National Design Institute, Ahmedabad and make specimens of different shapes and encourage the craftsman to manufacture them. The artisans should also be enable to get the benefit of novel designs and shapes of lacquerwares in vouge at other important centres of the country and abroad.

SECTION V

FINISHED PRODUCTS AND MARKETING

FINISHED PRODUCTS

V.1 THE JOURNAL OF INDIAN ART, 1884-86 says that Sankheda "can now in 1886 boast of a well established peaceful industry which bears its name as a special mark in being called 'Sankheda Lacquered Ware'. It differs in its peculiar ruby appearance from any other lacquered ware in India, and is likely to form a speciality by itself. The large number of toys, cups, teapoys, *charpoys*, cradles and plaques received from Baroda Committee shows that Gold leaf and red lac are the chief ingredients used in the decoration."[1] This shows the distinctive workmanship of craftsmen in the turnery practised here and the highest flight of ornamentation in finished products of beauty with utility, even before eighty years. Sir George Watt also refers to the tinfoil ornamentation practised here and commended an award for a beautiful object *de art* exhibited by a craftsman of Baroda in 1903. The craft was adversely affected in the post-war deflation due to cheap machine-made goods imported in India, when many of the artisans migrated from this place. Inspite of ups and downs, this beautiful art has maintained its distinctive value and still holds a place of pride for the country. And one feels that the craftsmen have preserved the Indian tradition to use wood as a medium of expression of art, culture and image. Today we find vivid and beautiful objects *de art* made by the craftsman of Sankheda working for hours with patience and concentration, as if he loves his art for art's sake and is proud of it, despite the economic struggle of the new industrial order he has to face.

V.2 Various types of beautiful and artistic articles of utility as well as luxury are prepared. The art of ornamental lac coatings is carried out on turned wooden articles as well as on flat articles, the latter in smaller proportion to the former which is comparatively cheaper and more in demand.

V.3 The main items of production in former days were simple or transparent lacquered articles, like cots, *bajoth* and cradles which were popular among the customers. All these articles interwoven in the social customs of various communities had more or less steady demand as cradles given to the daughters by their parents in *ana* ceremony after the first delivery, whereas *bajoth* or wooden seat and cots given to the bride at her marriage time. The finished products were meant for sale to the people in the limited orbit around the centre. The popular market was highly limited for the modern luxury articles which were costly. But such highly artistic articles were turned out by the artisans for presentation to emperors and princes, who bestowed high prices in the form of prizes given in return.

V.4 This position has partially changed today when the artisans manufacture a large number of various types of articles of household furniture, for decoration and domestic use, besides traditional articles which still command a market due to the continuance of certain social customs. The market orbit has now widened as finished products are marketed in distant places of the country. The main items produced are sofa-sets of different sizes, lacquered cupboards, swing with glass and tiles, cradles with stand of various sizes, designs and shapes, cots with shade (poles for tying mosquito net) or with side railing, wooden seats, flower-vases, powder bowls, teapoys, tea-trays, toys, table-lamps, flower-pot, *velan* or *dandia*, mirror box, bangles stand, photo frames, etc. The designs commonly

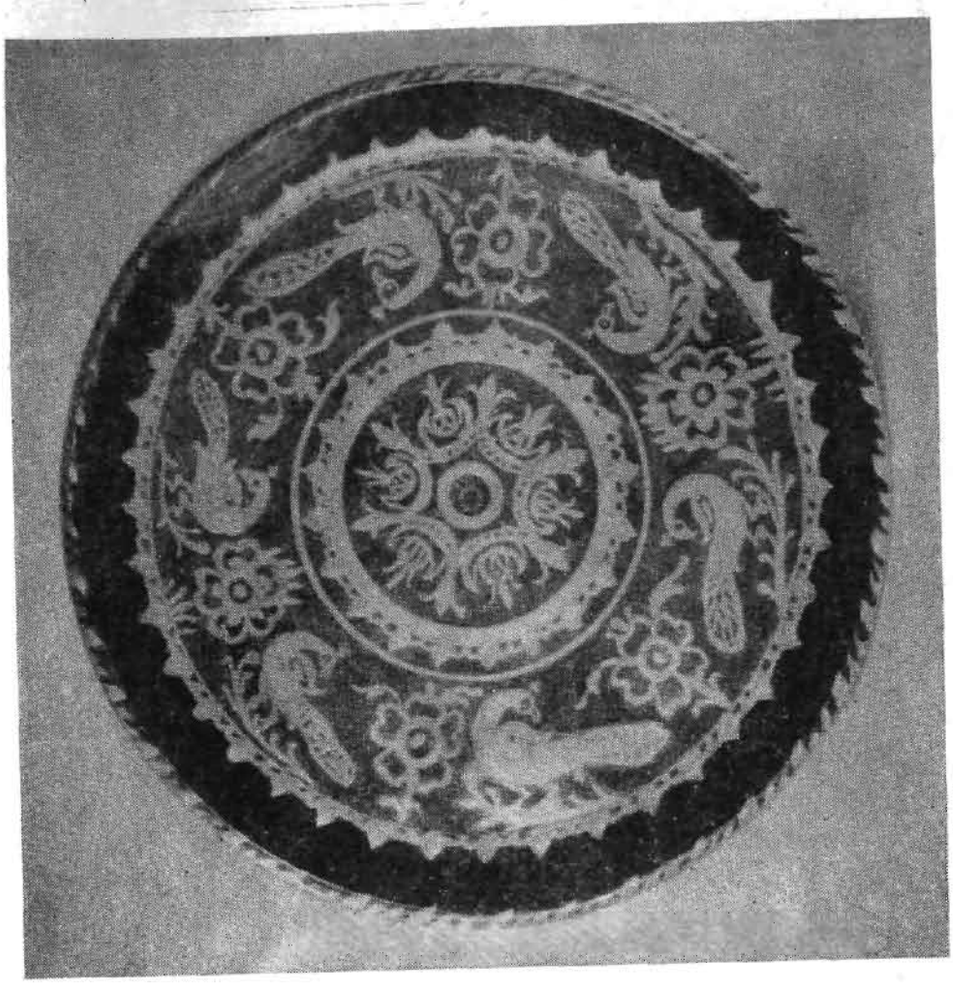
1. GUPTA, B. A., *The Journal of Indian Art*, 1884–86, *Embracing the Colonial and Indian Exhibition*, 1886

drawn on all types of lacquered wares are *jali* or double *jali*, *athada* or double *athada*, *minda*, *chokdi*, flowers, *vel* or *ful-vel*, *tranpankhadi*, *kak-kavali*, *laher*, human and animal figures, etc. It is assessed that annually articles worth Rs. 1 to 1.25 lakhs are manufactured. The prices of the articles vary according to workmanship, richness in design, etc. Each artisan has his own valuation of his product, even though the gulf cannot be wide for the same type of product between two artisans. Statement below lists the prices of various articles.

STATEMENT VII

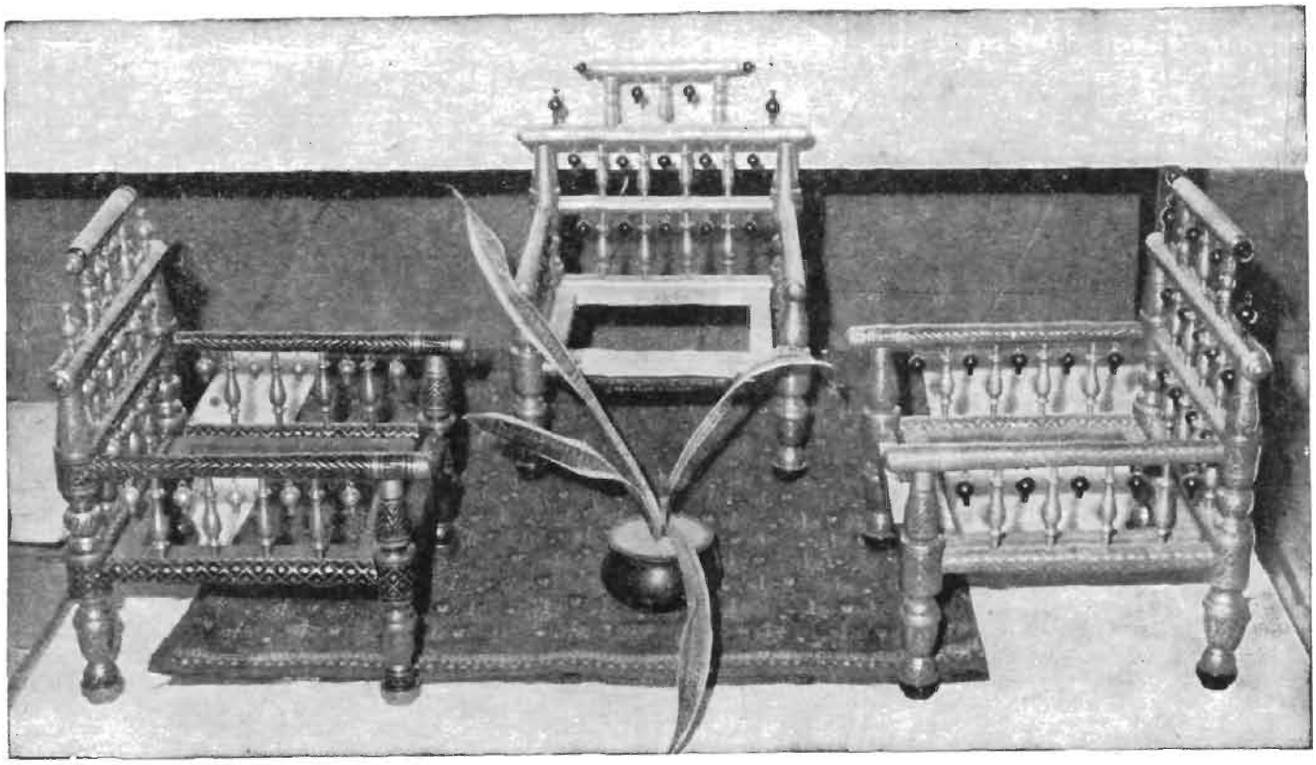
Price of finished articles, June 1967

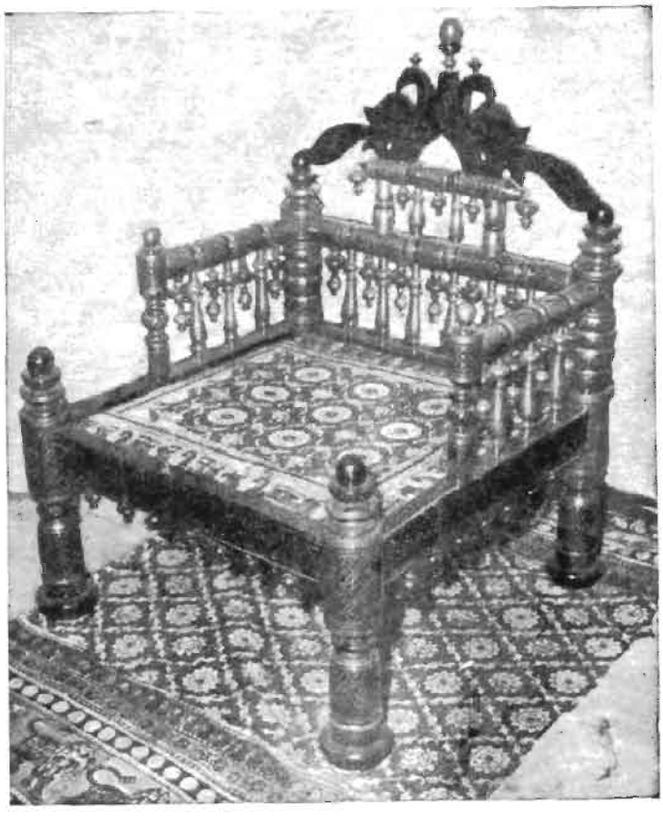
	Articles	Unit	Market price (in Rs.)
1	Two modern chairs and sofa		
	(i) Ahmedabadi sofa 18" x 50", 18" x 18"	One	450.00
	(ii) Modern sofa (fitted with bolt) 18" x 50", 18" x 18"	,,	425.00
	(iii) Easy-chair with sofa 18" x 50", 18" x 18"	,,	395.00
	(iv) Low chairs and sofa (dasa wado) 18"x50" 18" x 18",	,,	350.00
	(v) Modern (Lakadiwalo) sofa-set 18" x 50", 18" x 18"	,,	325.00
2	Lacquered cupboard with picture 60"height/36"breadth/depth 15"	,,	475.00
3	Dressing table 18" x 30"	,,	550.00
4	Swing with glass and tiles 54"-24"	,,	185.00
	Swing-simple 54" x 24"	,,	165.00
5	(i) Cot with shade and side railing	,,	250.00
	(ii) Cot with shade and side railing	,,	150.00
6	Cradle with stand	,,	145.00
	,, simple	,,	25.00
	,, bhamri	,,	28.00
	,, merap	,,	31.00
	,, double merap	,,	36.00
7	Wooden seat (Bajoth)	,,	38.00
8	Teapoy with cupstand	,,	45.00
9	Teapoy round (1' x 1¼' x 18")	,,	55.00
10	(i) Teapoy square (15" x 15" x 1")	,,	45.00
	(ii) Teapoy with cupstand (2¼' x 1¼')	,,	65.00
11	Teapoy with cupstand (3' x 1½ ')	,,	95.00
12	Teapoy (three legs) 2¼' x 1¼' x 1¼'	,,	75.00
13	Tray	,,	13.00
14	Tray with glass top	,,	15.00
15	Pankha (Hand Fan)	Dozen	22.00
16	Rolling pin thick (Velan)	,,	11.75
17	,, ,, thin (Velan)	,,	7.00
18	Wooden mortar for powdering chillies	,,	12.00
19	Wooden pestle	Dozen	9.00
20	Table lamp (small)	One	5.50
21	Table lamp (medium)	,,	11.00
22	Table lamp (large)	,,	65.00
23	Cradles as an article of worship	,,	135.00
24	Bag handle simple	,,	4.00
25	Gilli danda	Dozen	21.00
26	Chamri dandi	,,	10.00
27	Toys (Baba or Babyset)	,,	21.00
28	Assorted toys	,,	4.00
29	Jumkha small toys on cradle	,,	80.00
30	Spinning circular toys	,,	11.00
31	Mirror box	One	24.00
32	Bangle stand	Dozen	36.00
33	Flower-pot height 6"- depth 2"	Pair	6.50
	,, height 8" - depth 4½"	,,	7.00
	,, height 9" - depth 2½"	,,	9.00
34	Kumkum holders	Dozen	21.00
35	Hair-oil cup	,,	21.00
36	Powder-box	,,	54.00
37	Agarbatti stand big size	,,	9.50
	,, ,, small size	,,	7.50
38	Paper weight	,,	7.50
39	Pincushion	,,	12.50
40	Scale beams half lb.	,,	21.00
	,, ,, quarter lb.	,,	11.00
	,, ,, one lb.	,,	38.00
41	(a) Pan dan set of 5 stands	One	11.00
	(b) ,, ,, of 3 stands	,,	7.50
42	Cooking pans	Dozen	9.50
43	Water-pot cylindrical	,,	15.00
44	Stick	,,	11.00
45	Dandia for ras (big size)	Dozen	12.00
	,, ,, ,, (small size)	,,	9.00
46	Long walking sticks 3¼" length	,,	60.00
47	Dish 6", 8", 9", 10" & 12"	One	3.50 to 11.50
48	Perambulator (Chalangadi)	,,	12.00



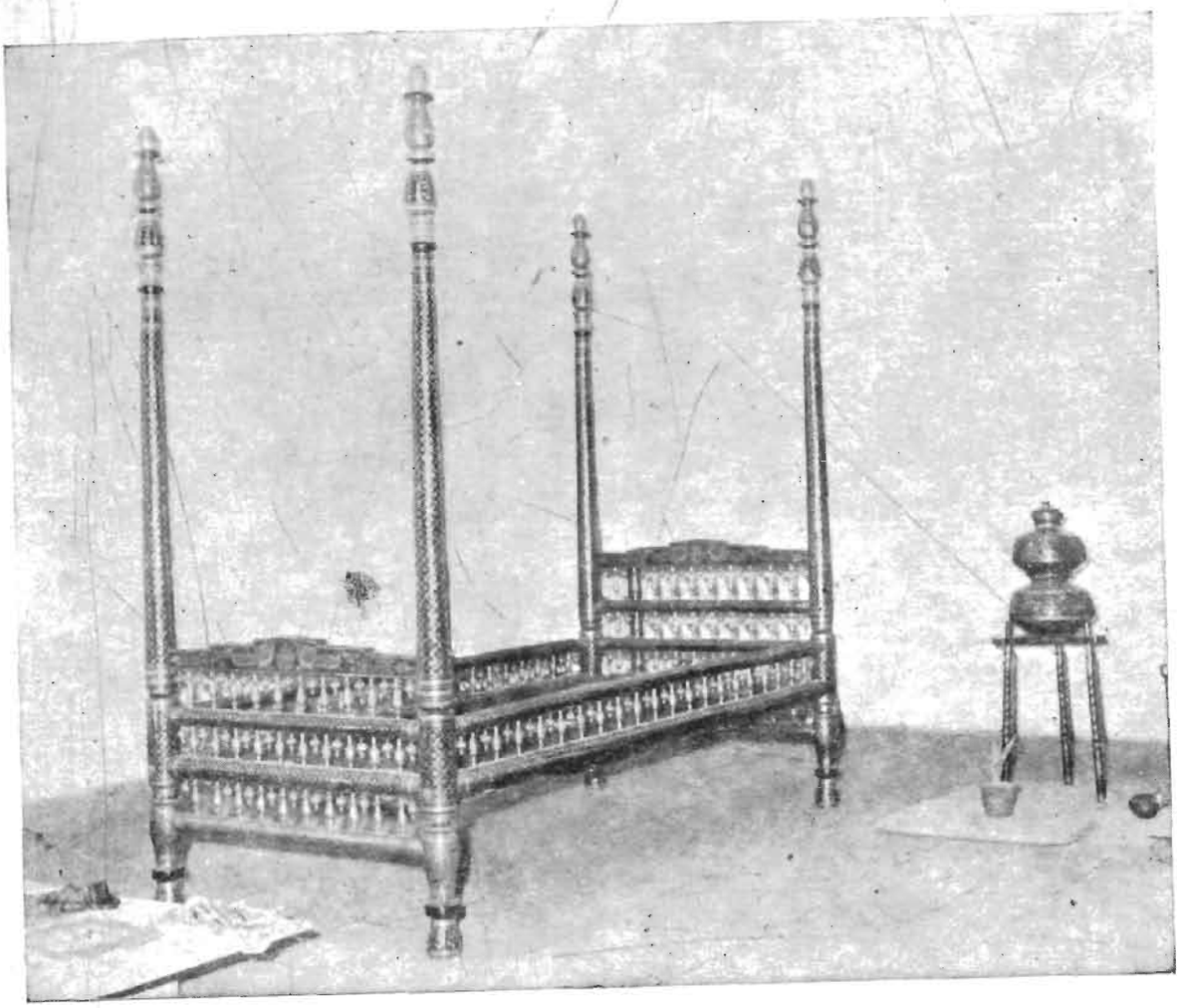


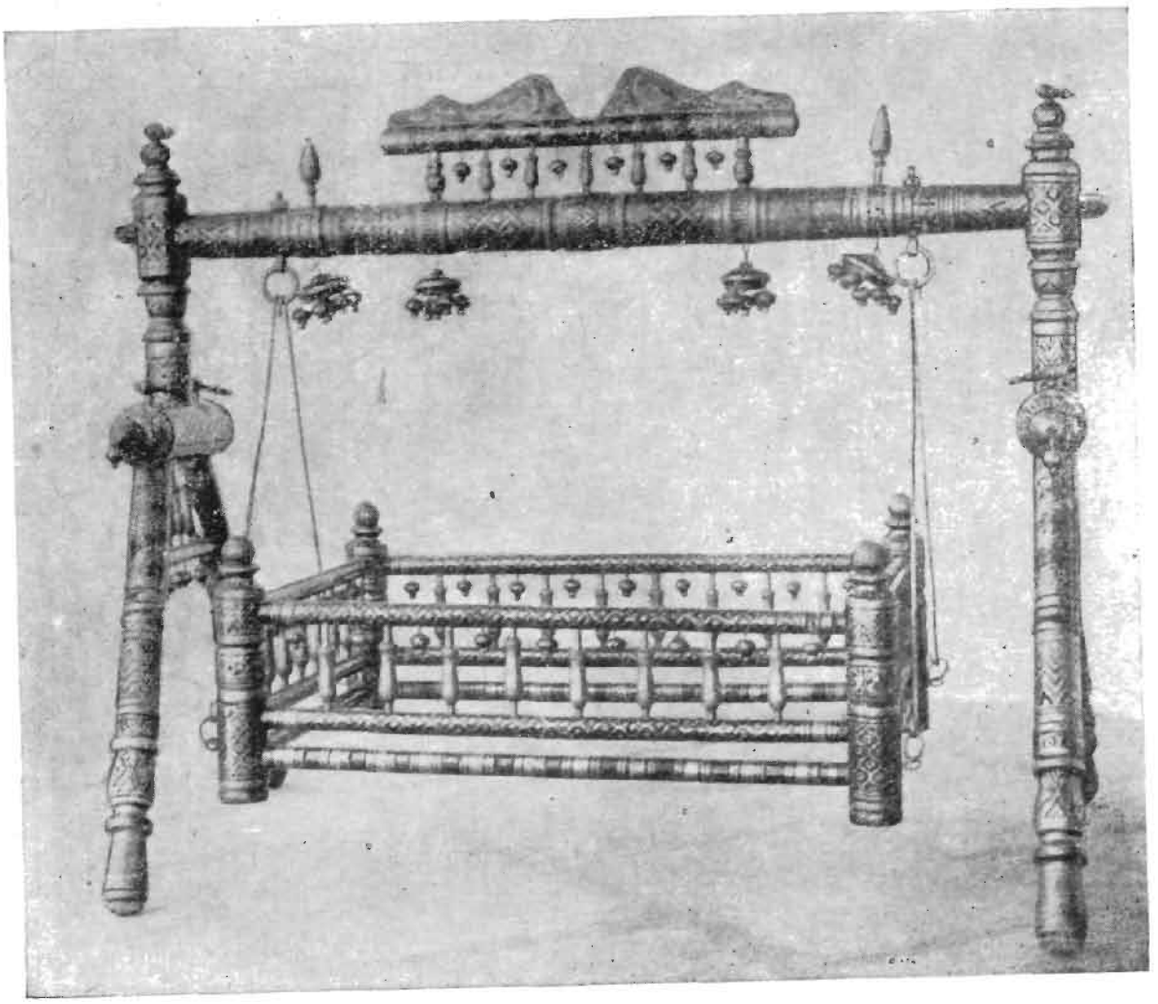
Lacquered plates and powder boxes worked in beautiful designs





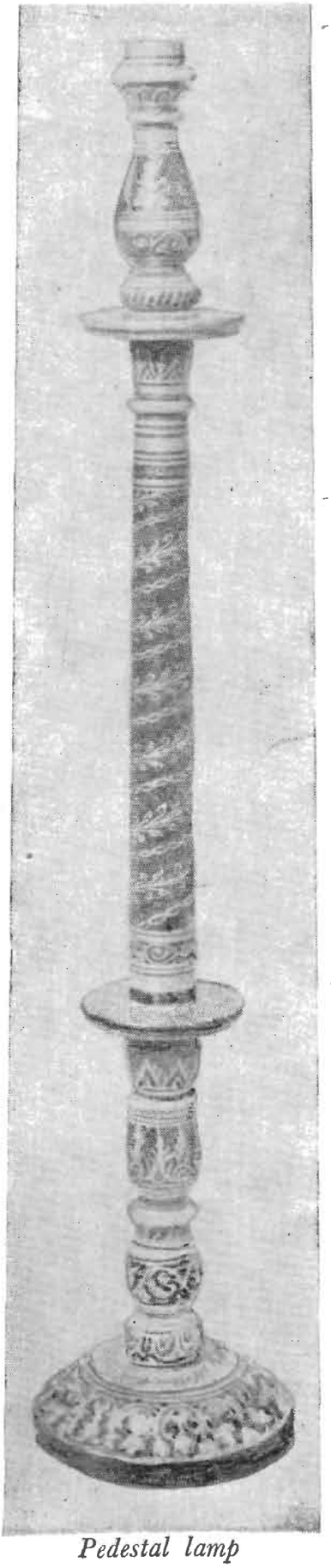
Chairs



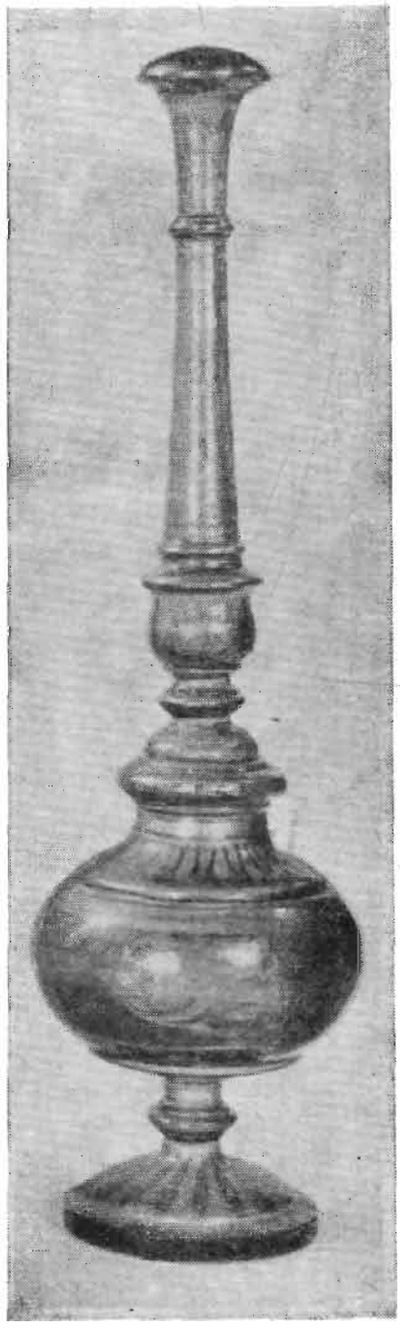


Top: Bedstead; Bottom: Cradle

BETWEEN PAGES 30-31



Pedestal lamp



Gulabadani (Perfume sprayer)

V.5 Lacquered cupboard decorated with picture, ornamented in vivid and colourful designs beneath various matching coloured transparent lac coatings appears a worthy piece of domestic furniture costing about Rs.450

V.6 Sofa-sets which include two chairs and a sofa are made in different shapes, colours and designs. Besides a few popular shapes and designs the artisans also make sofa-sets and other articles in various dimensions, shapes and designs are also made according to buyer's choice, if instructions are given at the time of placing orders. Swings with glass and tiles, cots with shade and side railing are some of the artistic pieces of furniture costing about Rs. 250 each. Cradles prepared in various shapes and sizes are sold from Rs. 25 to 145. Teapoys of different sizes have prices varying from Rs. 45 to 95. Cupboards, sofa-sets, swings, etc., and other luxurious items are purchased mainly by the rich as they are comparatively costly. Cradles available in different size and shape are purchased by the middle class and rich families according to their taste and capacity to spend. The luxury articles of high cost are generally made to order or sold to traders or emporia.

V.7 Various domestic articles of household utility like mortar and pestle, rolling pin, etc., are turned out at Sankheda. Such articles are not costly, and their prices vary from Rs. 11 per article to Rs. 80 per dozen. Other articles range from toys, to those required in games and play, or those used in worship and toiletry. Among toys the main products are tops, spinning circular toys, human and animal figures, assorted toys, *gilli danda*, cabs, etc., the prices of which vary from 25 paise to Rs. 5 per piece. Sets of cooking wooden toys comprising 12 to 15 pieces are also manufactured in good number.

V.8 In addition, various other articles of luxury-*cum*-utility such as trays, boxes, electric lamp-stand, wall-lamps of different sizes, mirror box, bangle stand, *kumkum* holders, hair-oil cup, powder-box, flower-vases, etc., are notable for their exquisite beauty.

V.9 Table lamps of varying heights and sizes are turned and lacquered with beautiful colours. The lamp holder is provided at the top and made hollow within for the wire to pass through. These lamps are preferred by the people because of their artistic appeal and safety as wood is a bad conductor of electricity. Flower-vases in a bottle or cylindrical shape are prepared in various sizes, having designs of flowers, creepers and other floral patterns ornamented therein. Powder bowls are turned in round shape and are provided with lids. The inner surface of the articles is lacquered black and the outer surface and the lids are ornamented with geometrical and floral designs.

V.10 Stationery articles, viz., pincushions, paperweights, rulers and ink-stands are also turned by the craftsmen and are in good demand. Only a few of the articles manufactured are described above. Their scope is, however, not limited to any particular item. If specimens are shown, they can produce any piece with the desired ornamentation a purchaser requires.

V.11 Production being limited, the question of accumulation of stocks does not arise. Whatever the stock the artisan possesses is kept with him in his own house. Except a few households, majority are unable to hold them for long due to their limited financial resources, which compel them to dispose of their daily production to the dealers.

Marketing

V.12 The real patron of the craft is the common man, who has played a significant role in keeping the craft alive. The articles in popular demand are cradle stands, stools for worship, cots, swings, toys, etc. The prevalence of the social custom of presenting the bride with lacquered articles by various communities of Gujarat has greatly contributed to the demand of lacquered articles which has kept the artisans busy.

V.13 In the lacquered articles one finds a unique blending of both the aspects—artistic as well as utilitarian. Since the articles are artistic in designs, they involved more labour and hence are naturally costlier. In the recent times various articles of furniture manufactured at Sankheda have appealed to the fancy and aesthetic taste of the people, and it has become a fashion with the aristocrats to decorate

their homes with beautiful and artistic pieces of lacquered furniture.

V.14 Lacquerwares are sold locally as well as throughout Gujarat and even beyond. The sales are direct as well as through big dealers or society. Traders from the different parts either visit Sankheda for making purchases or place orders with the artisans directly or through dealers or cooperative society. Emporia and Government Handicrafts Centres at Bombay, Baroda, Ahmedabad, Nagpur, Delhi, etc., also purchase, exhibit and sell these articles. All-India Handicrafts Board, Bombay has tried to create the market abroad. Decorators in Bombay are supplying these goods to film industry also.

V.15 Generally the sales are direct and on cash basis but casually the artisans supply their wares on credit also. Direct purchases are mostly in cash and those by traders or emporia on credit. Local demand is obviously limited, as Sankheda is a small town. The artisans are mostly dependent on orders received from emporia or outside traders. The practice of sale during fair or exhibition is not in vouge. The cooperative society has recently started marketing activity which is making good progress.

V.16 The artisans have not to face any competition in marketing their goods as production is limited and specialised in character. Some leading dealers who are financially better off, advance loan to the needy artisans. Some of those who have borrowed money are not able to repay due to their weak financial position. Those who are unable to purchase raw materials on cash, get them on credit at somewhat higher rates from the dealers to whom finished goods are sold at lower rates. The articles thus purchased are sold to the merchants at Baroda, Ahmedadad in cash and to those at Bombay through banks. Those who are free from debt carry on their craft independently and realise better prices than those whose material condition is not good. Standardisation of products is not possible as quality depends mainly on workmanship of individual artisans. There is no common understanding between them on sale price. In the absence of a fixed price-list, artisans sometimes take high or low prices of the same article, which brings them into discredit so far as their business transactions are concerned.

V.17 On an average articles worth Rs. 1 to 1.25 lakhs are manufactured annually at Sankheda. Products like sofa-sets are costly and so only the rich can afford them. Cradles which are turned out in larger numbers constitute the most common item of utility patronised by the rich and the poor alike throughout the State. It is estimated that annually about 50 sofa-sets, 1,000 cradles, toys and other articles worth about Rs. 1 lakh are manufactured and sold at Sankheda and stock worth Rs. 10 to 15 thousands remains on hand at the close of every year. Winter and summer are the peak seasons both for production and sale, while monsoon is a slack season. Goods manufactured during monsoon are mostly marketed in winter. But the demand for petty articles like toys increases during monsoon when several festivals are celebrated.

V.18 There is no good storage facility either with the society or with the artisans. The finished goods are stored by the artisans in their own houses. They do not need to hire a separate godown as storage is temporary for a short period and finished goods are disposed off or transported within a month without much time lag. Moreover, most of the artisans can ill-afford to wait long for disposal of the finished products, as their holding capacity is poor. In the slack season or when they are in need of money, they sell even at lower prices. But the cooperative society functioning at Sankheda stores finished products in its own shed. The question of providing storage facilities also to its members by erecting a common shed for the purpose is under consideration.

V.19 The articles are wrapped in gunny bags and transported by truck or rail. No special containers or packing material is used even for articles of big size. Artisans have poor knowledge of packing technique. They feel that some person of the society should be trained in the proper methods of packing, so that damage or breakage in transit can be avoided.

V.20 Even though these products have gained popularity in recent years, there is great scope of widening the market, as their utility

and artistic excellence have caught public fancy in ample measure. The volume of production is largely conditioned by the extent of demand, which should be accelerated by proper publicity and propaganda in Gujarat, India and abroad, as also by organising this craft on a sound footing by necessary financial aid, and adoption of *improved tools, and technique wherever possible.* In view of its merits such as individuality of designs in transparent lacquered work and permanent durability, adaptability of individual tastes and fanciful finish, lacquerwares of Sankheda can easily capture the imagination of the fashionable real and aristocratic customers. The only facility available at present is the common facility-*cum*-production centre now shifted to Sankheda from Baroda. The sale of finished products should be stopped up by so co-ordinating the activities of the common facility centre and society *by reducing the cost of production and by supplying* semi-processed and semi-finished materials to the artisans. New designs to suit modern taste should be devised and introduced side by side with the traditional ones.

SECTION VI

ECONOMIC CHARACTERISTICS

Capital Structure

VI.1 Being a handicraft, limited capital is required to start with. However, finance, which is the backbone of all industrial enterprise plays a significant role in the expansion and development of the craft, as it enables the craftsmen to purchase raw materials in bulk at cheap rates and improves their holding capacity. The capital required in the craft by the individual establishments is not generally beyond the reach of an average artisan. The average capital investment per unit is only Rs. 1,000 to 1,500—about Rs. 200 to 300 in tools and implements, Rs. 500 to 700 in raw materials and Rs. 300 to 500 in finished products. About two-thirds is invested as working capital and one-third in tools and implements. As the work place is a part of the residential premises, no separate investment is required for the workshop.

VI.2 Majority of artisans purchase wood, lac, resin, colours, etc., from the local market and sell their finished products directly to the consumers or through dealers or to emporia which patronise them. A small amount is sometimes raised through loans from leading traders, relatives or the bank at 9 per cent interest.

VI.3 A common feature generally noticed in small-scale units, is that a trader-financier advances loans to the artisans and purchases the products turned out by them. This practice results in the exploitation of the artisans owing to the under-rating of the finished goods. The grip of financier is hardly loosened, as the artisan is not in a position to bargain and has to resort oft and on. This shortage of working capital disturbs his production programme, as he fails to execute the orders in time.

VI.4 Whereas no Government loans or subsidies are available to the individual craftsman, a cooperative society of artisans recently organised with a share capital of Rs. 1,360, has received from Government a share contribution of Rs. 2,600, a loan-*cum*-subsidy of Rs. 2,000 for tools and equipments and Rs. 9,000 for the construction of a shed. All these advances are interest free but if the society makes any profit at the end of a year, the dividend declared is to be paid to the Government for the shares purchased. The society is also eligible to get management subsidy for meeting the cost of establishment as per rules. The society has received a loan of Rs. 10,000 as working capital at 2½ per cent interest from the Industrial Cooperative Bank, Baroda and also drawn the first instalment of Rs. 5,000. These concessions will gradually reduce the financial difficulties of the artisans. Due to paucity of funds and lack of marketing experience the society has so far started only marketing activity. On receipt of financial aid it is trying to stabilise its position and planning to supply raw materials to its members.

Cost of Production

VI.5 Like any other artistic article, the lacquerwares are priced on the basis of their artistic value and workmanship rather than their raw materials. It is very difficult to ascertain the exact cost of production of each article as the articles produced at Sankheda are of a wide variety, and workmanship involved differs from one article to another. Any account of their cost can at best be an estimate only. The artisans do not keep regular accounts of the expenses incurred by them for the various materials required in the manufacture of different types of articles. An estimation of cost of production for some popular items and earning of artisans is, however, attempted below.

STATEMENT VIII

Estimated cost of production, (April 1966)

Sl. No.	Article	No. of articles to be manufactured	Raw materials: Wood Cubic foot	Wood Cost (in Rs.)	Lac Tola	Lac Cost (in Rs.)	Colour Tola	Colour Cost (in Rs.)	Tin Kilogram	Tin Cost (in Rs.)	Iron chips Yards	Iron chips Cost (in Rs.)	Miscellaneous (coal, oil, sand-paper, etc.) (in Rs.)	Total cost of raw materials (in Rs.)	Labour charges of lacquer work (in Rs.)	Labour charges of carpentry work (in Rs.)	Total price (in Rs.)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Sofa	100	250	2,500	150*	750*	150	150	20	1,300	100	1,600	400	12,600	9,000*	2,500*	24,100
2	Sofa-chairs	200	250	2,500			150	100	20	1,300	100	1,600	400				
3	Teapoy 12"x15"	100	70	700	80	400	60	60	10	650	..	..	100	1,910	800	300	3,010
4	Corner-lamp 4½'	100	150	1,500	150	750	100	100	20	1,300	..	..	250	3,900	2,200	800	6,900
5	Tea-tray 12" x 18"	100	5	50	20	100	20	20	2	130	..	..	180	480	450	100	1,030

*Includes sofa-chairs

VI.6 The cost analysis of certain selected articles reveals that cost of production varies according to the quality and quantity of raw material used and workmanship involved. About 50 per cent of the cost of production goes towards raw materials. As the work is entirely done by family members, it can be assessed that half of the total sale price would be the cost of labour or profit that the artisan earns. One thing that is certain about the cost of these articles is that the cost of raw materials more or less equals that of the cost of wages. It is 52:48 for sofa-sets, 63:37 for teapoys, 47:53 for tea-trays and 57:43 for corner lamps. It can thus be generalised that about 50 per cent of the sale price goes to the artisans as their earnings. In artistic articles like sofa-sets it may be a little more.

WAGE STRUCTURE

VI.7 Almost all the units are working independently with the help of their family members only. Whatever they earn may be considered remuneration of their labour including profit. However, the wage-rates for piece-work for preparing lac *battis* from stick lac is Rs. 15 for 20 kg. of stick lac, and that for *harkalai* from tinfoils is Rs. 40 per kg. For the preparation of 1 kg. of *harkalai*, 4 man-days are required. Thus an artisan engaged in this work earns Rs. 10 per day. The artisans engaged in the craft earn on an average Rs. 2.50 to 6 per day or Rs. 100 to 200 monthly, depending on the size and workmanship of the articles produced. In case of articles like sofa-sets, cradles, etc., the artisan earns more, i.e., Rs. 5 to 7 per day, while in case of simple articles like toys, *velan*, etc., his earnings come to Rs. 2 to 3 per day. No piece wages are generally paid except for sawing timber and for joining the parts of the furniture. Persons associated with sawing of timber are from Baria and Tadvi communities known as *verania*. The sawing charges are Rs. 12 per 100 cubic feet of wood. Fitting charges for one sofa-set are Rs. 35 while Rs. 3 to 4 for one cradle according to its size. The carpenters associated with the craft earn Rs. 4 to 5 per day.

VI.8 Artisans work for 8 hours or more in peak season, and 6 hours in a slack season. The months of Ashvin to Jyestha which roughly correspond to November to June are the busy months both for production and sale, whereas the monsoon months from Ashadh to Bhadrapad which correspond to July to October

are generally slack. The total number of working days during the busy season is 195 and 104 in slack season. Work is closed on Monday as weekly off. Artisans celebrate festivals like Vishvakarma Jayanti, Hanuman Jayanti, Holi, Divali, Dassera, etc., and stop work on these days also.

VI.9 Even though the artisans work throughout the year, their earnings are just sufficient to meet their household expenditure. Cases are not wanting in which the artisans have also to incur debt for making both ends meet. Now that a cooperative society has started functioning it will help them earn fair wages and provide them with adequate work throughout the year.

INCOME

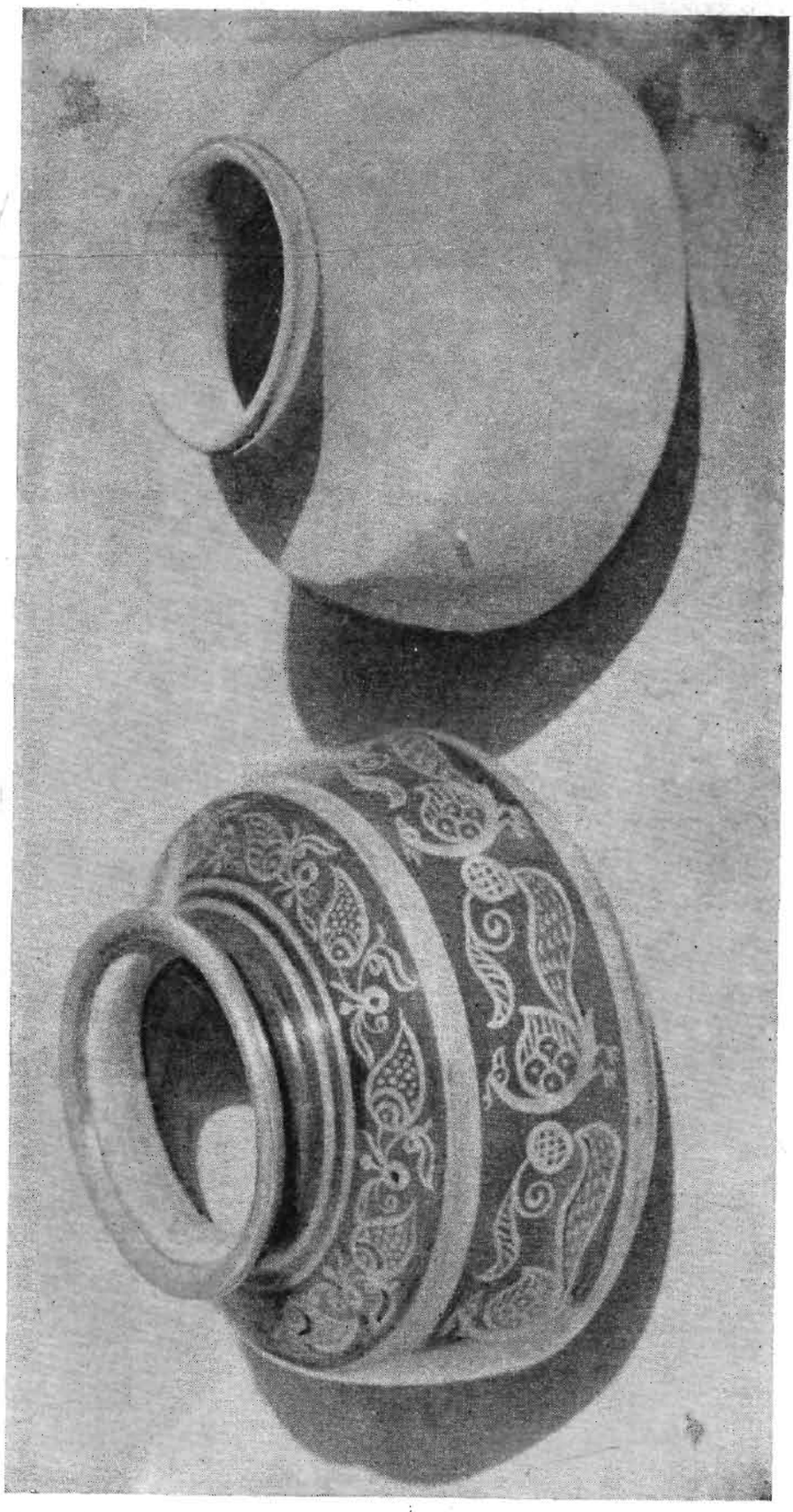
VI.10 As seen earlier at present about 30 Kharadi families are working on *sangheda* besides 8 to 10 engaged in fitting work. Each family is an independent unit working with the assistance of family members only and without any hired labour. They have no supplementary occupation as the craft is the only means of earning their livelihood. The following statement gives the distribution of 19 surveyed households according to different income groups on the basis of the annual net income earned and revealed by the survey.

STATEMENT IX

Distribution of households according to income range

Annual income range (In Rs.)	No. of households	Percentage to total
1	2	3
Less than 500	..	..
501 to 800	8	42.11
801 to 1,000	..	..
1,001 to 1,500	4	21.05
1,501 to 2,000	5	26.32
2,001 to 2,500	1	5.26
2,501 and above	1	5.26
Total	**19**	**100.00**

VI.11 The above figures reflect poor economic condition of artisans engaged in the craft. In spite of a high degree of artistic workmanship and participation in work by the entire family, what is left to the artisan is not enough to make both ends meet. The picture is doubtless gloomy, as except 2 households all the rest earn less than Rs. 2,000 per annum, 8 households which make 42 per cent of the total have poor earnings below Rs. 800 per annum. If this state of affairs continues for long there is every likelihood of artisans switching over to other occupations, which will spell ruination of a craft of such artistic excellence.



Earthen pot before and after lacquering

SECTION VII

ORGANISATIONAL CHARACTERISTICS

Cooperative Society

VII.1 There is no association, guild, union or such other organisation to look after the welfare of the artisans. Each unit works on its own without any external assistance. But they have many common problems for the successful solution of which close collaboration is essential. Efforts to organise an artisans' cooperative society in 1960 met with failure due to lack of cooperation and ignorance of members.

VII.2 A new society has been organised since 23rd November, 1962 with a membership of 30 artisans and 6 sympathisers. The working area of the society is limited to Sankheda only. Barring one or two units all the rest are members of the society. The society is in an infant stage and has taken up marketing only in the first instance. It purchases goods on cash from member artisans and supplies them against orders placed with it. Though it has been started recently, during the year 1963-64, the society sold goods worth Rs. 11,800. It now proposes to extend its activities to the supply of raw materials to members at reasonable prices.

Training

VII.3 Almost all the craftsmen engaged in the craft are hereditary artisans and their skill is transmitted from generation to generation. No outside training is required as they learn the craft by actually working at home. "As common in the artisan world of India the methods were closely guarded and would be passed from father to son. It is said that once the standard of the lac-turned articles produced here was so high that not before a man was at least forty years old was he considered fit enough to learn the art."[1] This bespeaks of richness in workmanship. Training is not their felt need. However, the 'Diamond Jubilee Technical Institute' at Baroda which imparts training in lacquer work and other crafts, is the nearest available facility for those who desire to be trained.

VII.4 The common facility-*cum*-production centre which was formerly located at Baroda has been recently shifted to Sankheda, with some electrically operated appliances like turning lathe, band-saw machines, circular saw machine, shaping machine and other equipments. Till today artisans use primitive types of tools and implements with which they are accustomed to work since long. The centre has started its activity recently and provides the artisans the facility of working with improved tools on payment of nominal service charges. In the initial stages, it is difficult for the artisans used to work with traditional tools to switch over to electric lathe or other appliances. In due course they will it is hoped adjust themselves to working on improved tools. This will be greatly facilitated if they get themselves trained, and avail of the opportunity the centre provides in operating those machines.

VII.5 There is a great scope for introducing new designs, shapes, etc., in the finished products. The scope can be widened by training the artisans in drawing work. The alternative of tinfoil ornamentation under transparent lacquer on pottery articles should also be explored.

Very Skilled Craftsmen of Sankheda

VII.6 Artisans of Sankheda are renowned for their unique workmanship. In the *Indian Art at Delhi*, 1903, by Sir George Watt, there is a mention that Ichchharam Premji of Baroda was one of the artisans who was given an award for a lacquered cradle. Among the artisans of

1. Mehta, Rustom J., *Handicrafts and Industrial Arts of India*, p. 16, 1960

Sankheda, Himatlal Mohanlal Kharadi was awarded a silver medal by the former Baroda State 28 years ago. He was also given a certificate from the Cottage Industries Department of the Government of Madhya Pradesh for a good mastery on lacquer work in 1955. Recently he was awarded a National Award for master craftsmen by the Government of India, in 1967.

VII.7 Other such craftsmen are Jayantilal J. Kharadi, Chimanlal Mohanlal Kharadi & Somalal Motilal Kharadi, who won prizes for their specimen in the Annual Handicrafts competitions held by the Government of Gujarat in 1962. The craftsmen of Sankheda have thus participated in various competitions and exhibitions of industrial arts and won awards, prizes and medals for the excellence of their workmanship.

SECTION VIII

OTHER CENTRES

VIII.1 LAC-TURNERY is practised in numerous towns and villages of Gujarat. Besides Sankheda, other important centres in Gujarat are Junagadh, Mahuva, Idar, Bhavnagar, Dhoraji, Rajkot and Jamnagar. A brief account of this art as practised at (i) Junagadh, (ii) Mahuva and (iii) Idar is given below from the general study undertaken at those places.

JUNAGADH

VIII.2 Situated at the foot of the celebrated Girnar Hills, Junagadh is a town of great antiquity. It has a beautiful panorama of forests around it. It is a junction station on the Rajkot-Veraval and Junagadh-Visavadar metre gauge sections of the Western Railway. Prior to Independence it was the capital of the former State of Junagadh. It is now the headquarters of the district of that name as well as of the subdivision and the taluka.

VIII.3 The proximity of the Gir forests which makes for easy availability of wood and the constant demand for lacquered articles by Mers, Muslims and other communities, appear to be responsible for the establishment of this craft at Junagadh. The exact period of starting and development of the craft is difficult to ascertain due to lack of reliable data. The old artisans of this place, however, state that the craft has been in existence for the last 150 years or so.

VIII.4 These craftsmen are known as *sanghadia* from their working on *sangheda* or a hand-operated lathe, and the locality where their establishments are situated is known as Sanghedia Bazaar. Out of a total of 16 establishments at Junagadh six have been surveyed for the purpose of this monograph. Two of them belong to Brahmakshatriya and one each to Bania (Jain), Prajapati, Suthar aud Muslim (Memon) by caste. These six families have 34 members—20 males and 14 females, of whom only 6 males are working in the craft and the rest are non-workers. Four households have a separate workshop within a mile from their dwellings, while one each of Prajapati and Muslim (Memon) has workshop-*cum*-dwelling. All these are owned premises.

VIII.5 Lacquering carried out by these units is simple and plain. Utility articles and toys are the main products, which cater to the needs of the rural folk and the town proper. These articles include cradles, *bajoth* (square wooden seat), *chaklo*, *velan*, *kankavati* and toys such as tops, dolls, animal and bird figures, *baba gadi*, motors, etc.

VIII.6 All the surveyed establishments work on electrically operated *sangheda*. This change over from hand-operated lathe during the last decade reveals the aptitude of the industry to move with the times by discarding old and primitive methods of production and resorting to labour-saving devices. All are independent units working on their own. They purchase the raw materials, e.g., wood, lac, resin, etc., from the local market and sell their finished products directly to the consumers, or in a few cases to retailers.

VIII.7 Wood is purchased from the local dealers who procure it from the Gir forests. The price of different varieties of wood such as teak wood, mango wood, *dudhalo*, etc., varies from Rs. 25 to 30 per 10 B. mds. *Dudhalo* is generally preferred for making toys because it is soft, light in weight and milky white in colour. All these qualities are conducive to easy turning and better colour effect. Sufficient quantity of *dudhalo* variety of wood is not available owing to restrictions imposed by the Forest Department. The artisans have, therefore, to use the other wood in toy making. No difficulty is experienced in procuring other raw materials such as lac, resin, colour, etc.

VIII.8 The technique is comparatively simpler than that in vogue at Sankheda, as lacquering is plain and does not call for the intricate processes involved in transparent work. A piece

of wood to be turned is fitted into the electric lathe and shaped with the help of the chisels, skews and gouges of different types. It is then polished with a polishing paper. Deeper cracks and cavities are filled in with *lapi* a paste made up of wood-dust, lac and rosin. When the surface is perfectly smooth, the coloured *batti* is pressed against the revolving object. Heat is generated due to friction which melts the lac and coats the wood in an irregular fashion. A piece of hard wood is then held against the revolving article to give a uniform coating of lac and diffuse the colour. Finally, a piece of cloth or a *kevda* leaf moistened with groundnut oil or sesamum oil is rubbed against the article while it is still revolving in the lathe. This gives the lac, a fine polish that dose not fade away for quite a long time. The article is then ready for sale.

VIII.9 On an average, they work for 285 days in a year. The brisk period of production and sale are the marriage season and the months of October and February when two important fairs are held at Junagadh. The industry is operated throughout the year except in the rainy season, when the work is slack, as the woodwork is adversely affected by moist weather. The artisans generally work for 8 hours a day and the daily earnings vary from Rs. 3 to 4.50 per artisan. Of six units, 4 earn between Rs. 1,001 and 1,500 and two earn between Rs. 1,501 and 2,500 per year.

MAHUVA

VIII.10 Mahuva[1], the headquarters of a taluka and also of a subdivision, is an ancient port on the Arabian sea 55 miles south-west of Bhavnagar. Situated on the west bank of the river Malan, it is the terminal station of Dhasa–Rajula–Mahuva metre gauge railway line and also of Bhavnagar–Talaja–Mahuva narrow gauge line. It was an important port during the rule of the Sultans of Gujarat and the Moguls. It is now a minor port open to coastal as well as foreign traffic with a lighthouse near the harbour. Moherak and Madhumavati are the ancient names of Mahuva which is said to have been given in *inam* by the king Vikram to Bhavad Shah, whose son, Javad Shah was a contemporary of Kanaksen Chavda of Katpar.

VIII.11 It is well-known for its handicrafts of ivory and lacquered woodwork. Prior to the development of this craft at Mahuva, the ancestors of the present craftsmen were working as carpenter and engaged in making wooden articles. But later the craft developed here by the patronage given by Thakor Vajesinhjee of Bhavnagar.

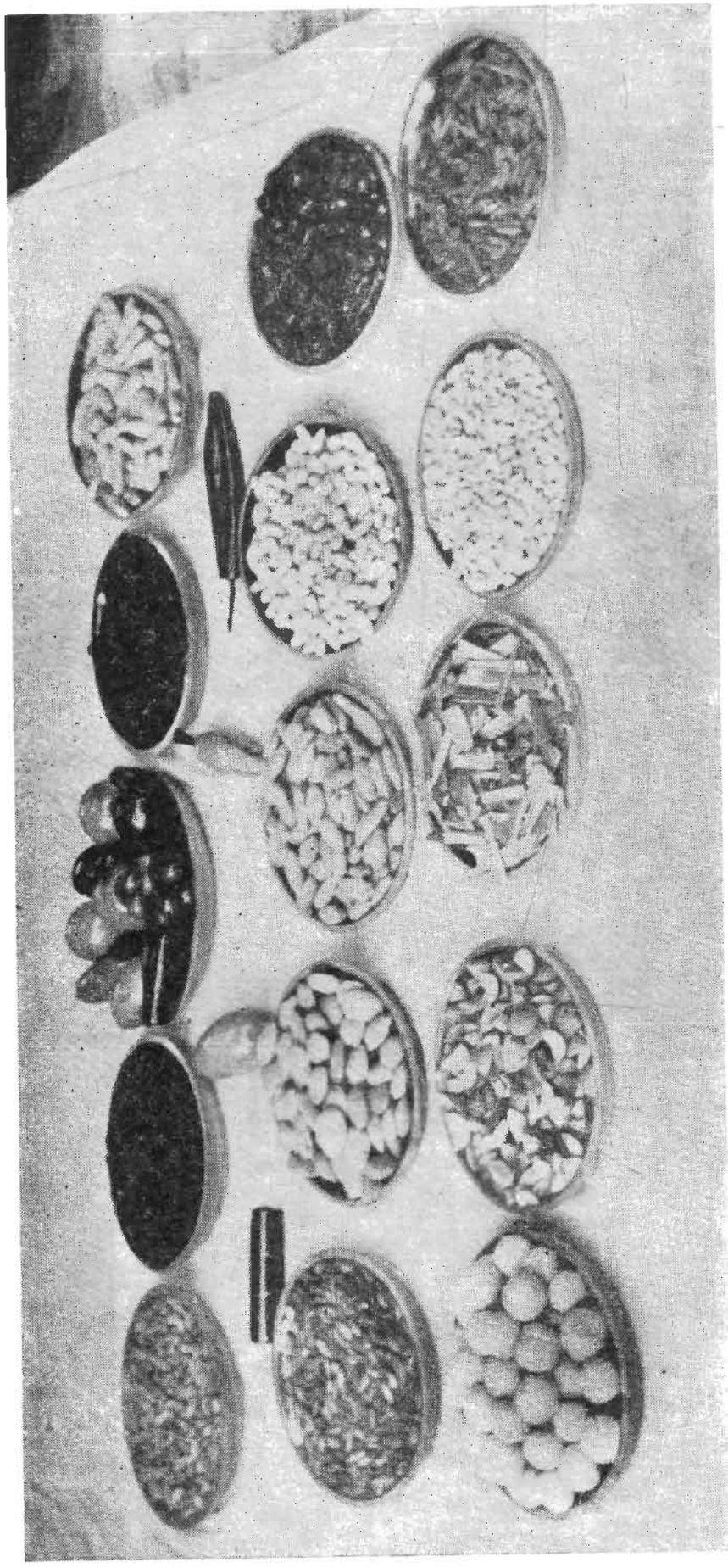
VIII.12 Mahuva is famous for its toys, like motor, engine, telephone, dolls, etc., flower-pots, dishes, bowls, powder-box and imitation of natural fruits and vegetables. Mango, banana, orange, apple, etc., and dry fruits like betelnut, cardamom, raisin, grapes, pistachio, almond, apricot, walnut, date, dry date, cinnamon, cashew-nut, groundnut, etc., are all prepared from *dudhalo* wood and look exactly like real fruits, so much so that one is easily deceived by their appearance.

VIII.13 Four Brahmakshatriya families were selected for the study of the craft. They comprise 28 persons—16 males and 12 females. Among them only 6 males are engaged in this craft. All have their workshop in the main bazaar at a distance of less than a mile from their dwelling. All the workshops are hired.

VIII.14 Wood is purchased from the jungle of Manora near Bilimora, Bulsar and Thana district, while colours, lac, etc., are obtained from the local market. Availability of lithoform powder (American) depends upon the availability of quota. Raw materials are generally purchased on cash basis. Tools used and technique adopted by the artisans are the same as those discussed earlier while describing the working of this craft at Junagadh.

VIII.15 About 100 different types of articles including all types of fruits, vegetables and other wooden toys are made. Normally the craftsmen first turns out one piece of a particular design. If it is found that there is a demand for it then they make it in bulk. All articles have different shapes, designs, and decoration, which are varied to suit the trends of fashion and popular demand. All the establishments work on *sangheda* operated by electric power.

1. Exquisite articles of ivory are also manufactured at Mahuva on hand-operated lathe. A monograph on *Ivory work of Mahuva* has been published by this office as Census of India, 1961, Vol. V, Part VII-A No. 4.



Imitation fruits, nuts, spices (Mahuwa)



Lacquered toys and other articles exhibited for sale (Mahuva)

First the article to be ornamented is elaborately shaped, smoothed and polished. After sufficiently smooth surface is obtained the object is coated with background colour. Certain portions upon which bunches of flowers, groups of animals or hunting scenes are to be shown, receive a coating of white paint or chalk. Sometimes designs are drawn by the painters who charge 12 to 50 paise per piece. The desired figures are then made in water colours with a brush and when quite dry, are covered over with lac. Instead of drawing of designs, pictures of gods and goddesses, natural scenes, national leaders, etc., are also pasted on the wooden piece over which transparent lac coating is applied. The effect produced is similar to that of beautifully painted article. Metallic effects are produced by mixing lac with powdered lithoform which is imported from foreign countries. Imitation fruits require great care and skill on the part of the artisan who works patiently in giving shape to the pieces of wood with small chisels, files, etc.

VIII.16 The articles are sold by craftsmen themselves without any intermediary. The finished products are marketed throughout the country from Mahuva where the purchases are made by tourists, traders, as well as by emporia run by Government and other institutions. The sales are on cash basis. Articles are transported by rail and road.

IDAR

VIII.17 Idar a taluka headquarters, is situated 15 miles north of Himatnagar, the district headquarters and a railway station on the Ahmedabad-Khed Brahma metre gauge railway line. Situated on the State Highway—Himatnagar to Mota Ambaji—it is connected by State Transport bus routes to important towns and cities. The town is picturesquely situated at the foot of Idargadh a rocky hill about 500 feet high towering over it. It was the capital of the former Idar State and is traditionally known as Ildurg.

VIII.18 The Kharadis at Idar belong to Kumbhar caste. About 34 Kumbhar families pursue the craft. Out of 134 persons—61 males and 73 females comprised in these households, 75 persons—36 males and 39 females are workers. This shows an equal participation of females in the craft. The males are engaged mainly in the hard and labourious processes of production, while females do such processing work as colouring, painting, etc. Simple and inartistic work is being done by the children below the age of 15. Of these households, 22 live in owned premises and 12 live in rented ones. Most of their dwellings are two room tenements. All of them have their workshops in the verandah of their dwellings which serve both the professional as well as social needs of the craftsmen.

VIII.19 Wood is available from near-by forests of Vijaynagar mahal of Sabarkantha district and forest of Khervada range of Rajasthan. It is purchased in cash, which they have to obtain from the local money-lenders on the condition that they will sell the manufactured products through them. The raw materials are stored on the loft of their residential houses, where also they work. Subsidiary raw materials like colours, *lakh*, *rajan*, *kalai*, *saresh*, etc., are purchased from Ahmedabad according to their monthly requirements. The tools used and technique adopted by artisans are the same as those discussed earlier.

VIII.20 This centre is famous for lacquered toys, like trinket box, tiny tea-set with chair and a table, *agarbatti*-holder, *kumkum*-pot, cooking set, aeroplane, engine, telephone, table-lamp, petromax, temple, etc., which are plainly lacquered.

VIII.21 Toys and other articles manufactured at Idar are very attractive. Fine and appealing colouring effect and attractive finish of toys and other articles have brought fame and popularity to the craft. Though ornamentation is plain, multi-coloured articles are also turned with exquisite dexterity and elaborate shadings. As the lacquer work is plain and simple, the articles are comparatively cheap. There is no traditional motif for decorative purposes. The articles are self-designed by the craftsman who adopt their design according to the demands of the customers. None of them has been trained at any design centre. Their specialisation lies in their superior workmanship and beautiful colour effect. Each family is a small autonomous unit of production preparing all types of articles. Sometimes artisans produce

special items on order by businessmen or customers.

VIII.22 The products are marketed mostly at Idar on retail basis at the houses of Kharadis. However, the articles which are purchased by the local money-lenders who advance them money for the purchase of raw materials, etc., are marketed throughout Gujarat and outside as far as Bombay, Poona, Rajasthan and other places. The products are also sold at the local fairs and during important fairs at religious centres like Shamalaji and Khed Brahma. The products are not exhibited in any exhibitions or emporia. The money-lenders who sell the products in bulk, pack them in gunny bags or in tea-boxes.

VIII.23 There is one cooperative society organised by the artisans for their economic uplift but due to absence of unity among themselves, the society is stagnant. They had also formed one association, which is practically inactive. For social purposes they have got their caste *panch*.

SECTION IX

CONCLUSION

IX.1 THE CRAFT OF lac-turnery is found in numerous villages and towns not only in Gujarat but throughout the country. Some of the centres in the country are known for higher flight of ornamentation with variation in designs and lac application. The plain ornamentation is, however, practised on a larger scale. The craft which is so largely popular has mainly developed due to the demand from the common man whose articles of utility it chiefly produces. The common man and mass consumption are its principal patrons. Encouragement from princes and potentates has been in the main responsible for the production of some of the exquisite pieces of art practised at Sankheda, a small town in Baroda District. Despite ups and downs the craft survived and developed owing to the continuous demand by the masses in general. The question, therefore, arises what should be done to further develop this unique art of lacquery. The former State of Baroda had no doubt taken keen interest in the handicrafts revival and promotion of which helped this industry to some extent to retain its hold on the masses.

IX.2 The higher flight of ornamentation in the unique style of lacquering turned out for mass consumption shows the inner delight and joy of creation inherent in the artisan and their dynamic approach and attitude towards changes for the better. Every craftsman was proud to show his distinct individuality in the products made by him. This was one of the reasons that prompted him guard his secret from others. Until the recent past the craft served only those in the neighbourhood whom the craftsman personally knew. This personal contact between the artisan and customers established between the two a bond which transcended economic relationship and inculcated in him a desire to turn out goods of best quality for the buyers whom he intimately knew. His superior workmanship also earned for him a higher social status in the community.

IX.3 The conditions have partially changed recently, when the Sankheda artwares have won greater popularity and command a wider market than before. But the technique and structure of the craft have not undergone any material change in the sense that the artisan still works with his primitive tools and within the narrow compass of his financial capacity. His earnings are poor mainly because of low *per capita* production. Unless the output per artisan is increased by use of modern appliances and the margin of profit is substantially raised, the craft is likely to be adversely affected, as the artisans would switch over to other remunerative occupations, which will help them make both ends meet.

IX.4 The future of the craft appears bright as the demand for the lacquered articles is on increase. The exquisite lacquered furniture in the traditional design manufactured at Sankheda has been finding increasing popularity in the U.S.A., Canada and European countries for the last few years. Whereas the social custom of presenting lacquered articles to the bride prevalent in various communities continues to maintain a sizeable demand for these wares, an increasing fashion among the rich and well-to-do to decorate their homes with lacquered furniture has opened an additional avenue for the further expansion of this antique art.

IX.5 As the demand for lacquered articles is on increase, the immediate problems requiring attention are (i) stepping up production, (ii) variety in designs and shapes, (iii) reduction in the cost of production and (iv) organised approach for marketing finished products within the country and abroad.

Stepping up Production

IX.6 All the artisans are at present working with simple traditional tools and equipments utilised in ordinary carpentry work and crude wooden lathe. Naturally the output per establishment and per artisan is limited. If the electric lathe for turning wood and other modern appliances are employed the production can be appreciably increased. This requires more funds for investment as fixed capital, as well as training in the use of improved tools and machinery. Whereas the common facility-*cum*-production centre recently started can help improve the technique, the cooperative society organised by the artisans can render requisite financial aid and supply the required raw materials such as wood, lac, tinfoils, etc., at reasonable rates.

Training on electrically operated tools and machinery to younger generation will go a long way in encouraging the use of labour and time-saving appliances.

Training

IX.7 Variety in designs is very essential for widening the market for lacquer work. The National Design Institute, Ahmedabad can also be helpful to this craft by furnishing new designs and shapes to suit modern tastes and requirements.

The artisans should also be trained into the proper methods of packing so that damages in transit can be eliminated.

Marketing

IX.8 The profits of the middlemen can be eliminated by marketing their wares through the cooperative society wherever possible. This by itself would not be enough. Government as well as All-India Handicrafts Board should, therefore, undertake wide publicity of lacquerwares in the country and abroad, as in spite of increase in demand in recent times, the artistic excellence of this work is not fully known to those who are in a position to patronise this art.

APPENDICES

APPENDIX I

TABLE I

Distribution of artisan communities

Name of the craft	Name of caste or community	Name of town surveyed	No. of families surveyed	Total No. of adult workers			Number of families working under co-operations	No. of families working in own/rented houses or workshops	
				Persons	Males	Females		Own	Rented
1	2	3	4	5	6	7	8	9	10
Transparent Lacquer Work	Suthar (Pancholi)	Sankheda	19	52	27	25	..	17	2

TABLE II

Distribution of family members according to age, sex and earning status

Age group	Persons			Males			Females		
	Worker	Non-worker	Total	Worker	Non-worker	Total	Worker	Non-worker	Total
1	2	3	4	5	6	7	8	9	10
0– 4	..	14	14	..	7	7	..	7	7
5– 9	1	12	13	..	7	7	1	5	6
10–14	2	7	9	2	5	7	..	2	2
15–19	1	6	7	1	4	5	..	2	2
20–24	9	1	10	3	..	3	6	1	7
25–29	9	..	9	3	..	3	6	..	6
30–34	9	..	9	6	..	6	3	..	3
35–44	9	..	9	5	..	5	4	..	4
45–59	9	..	9	6	..	6	3	..	3
60 and above	3	..	3	1	..	1	2	..	2
Total	**52**	**40**	**92**	**27**	**23**	**50**	**25**	**17**	**42**

TABLE III

Literacy according to age and sex

Age group	Persons								Males								Females							
	IL	L	P	S	SSC	D	G	Total	IL	L	P	S	SSC	D	G	Total	IL	L	P	S	SSC	D	G	Total
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
0– 4	14	..	..	..	..	..	..	14	7	..	..	..	..	..	..	7	7	..	..	..	..	..	..	7
5– 9	5	..	8	..	..	..	..	13	3	..	4	..	..	..	..	7	2	..	4	..	..	..	..	6
10–14	1	..	8	..	..	..	..	9	1	..	6	..	..	..	..	7	..	..	2	..	..	..	..	2
15–19	1	1	3	2	..	..	..	7	..	..	3	2	..	..	..	5	1	1	..	..	..	..	..	2
20–24	3	1	6	..	..	..	..	10	1	..	2	..	..	..	..	3	2	1	4	..	..	..	..	7
25–29	4	1	3	1	..	..	..	9	1	1	..	1	..	..	..	3	3	..	3	..	..	..	..	6
30–34	2	3	4	..	..	..	..	9	2	1	3	..	..	..	..	6	..	2	1	..	..	..	..	3
35–44	2	1	6	..	..	..	..	9	..	..	5	..	..	..	..	5	2	1	1	..	..	..	..	4
45–59	4	1	4	..	..	..	..	9	1	1	4	..	..	..	..	6	3	..	..	..	..	..	..	3
60 and above	1	1	1	..	..	..	..	3	..	..	1	..	..	..	..	1	1	1	..	..	..	..	..	2
Total	**37**	**9**	**43**	**3**	..	..	..	**92**	**16**	**3**	**28**	**3**	..	..	..	**50**	**21**	**6**	**15**	..	..	..	..	**42**

NOTE:

Code for Literacy: IL=Illiterate, L=Literate, P=Primary, S=Secondary, SSC=Secondary School Certificate Examination, D=Diploma, G=Graduate

TABLE IV

Composition of workers in surveyed households

Name of the craft	Name of town surveyed	Total No. of households surveyed	No. of households engaging other hired workers	Total No. of persons employed in production: Total No. of family members	Total No. of other hired workers	Total	Main caste/tribe of other hired workers as shown in Col. No. 6
1	2	3	4	5	6	7	8
Transparent Lacquer Work	Sankheda	19	1	52	1	53	Pancholi Suthar

TABLE V

Designs

Name of the craft	Number of households engaged in manufacture indicating the sources from which they receive designs: Traditional	Self-designed	Middlemen who under take marketing	Design centre	Cooperative sales societies	Name of designs and motifs: Name	No. of centres engaged in manufacture	Name of colour used
1	2	3	4	5	6	7	8	9
Transparent Lacquer Work	19*	19*	..	..	..	1. Geometrical, 2. Floral designs, 3. Circles, 4. Dots, 5. Birds, 6. Animals, 7. Swastik, 8. Dariya Mojha, 9. Flowers, 10. Creepers, 11. Leaves, 12. Plants, 13. Jali, 14. Double Jali, 15. Minda, 16. Chokdi and 17. Dots	Sankheda	1. Red, 2. Green, 3. Yellow, 4. White, 5. Pink, 6. Brown, 7. Golden, 8. Saffron 9. Violet and 10. Blue

*The desings in vogue are usually traditional but the artisans also invent new designs if so desired.

TABLE VI

List of very skilled craftsmen of each community

Name of Town	Name of craft	Name of the community	Name of skilled craftsmen
1	2	3	4
Sankheda	Transparent Lacquer Work	Suthar (Pancholi)	Somalal Motilal Kharadi
		,,	Jayantibhai Jethabhai Kharadi
		,,	Himatlal Mohanlal Kharadi
		,,	Dalsukhbhai Muljibhai Kharadi
		,,	Mohanbhai Chhaganbhai Kharadi
		,,	Chimanlal H. Kharadi
		,,	Amritlal C. Kharadi

APPENDIX II

Verses on Lac in Atharva Veda

Hymn—V of Atharva Veda

रात्री माता नभः पितार्यमा ते पितामहः ।
सिलाची नाम वा असि सा देवानामसि स्वसा ॥ १ ॥

1. Aryaman is thy grandsire, Night thy mother, and the Cloud thy sire,
The name is called Silachi. Thou, thyself, art sister of the Gods.

यस्त्वा पिबति जीवति त्रायसे पुरुषं त्वम् ।
भर्त्री हि शश्वतामसि जनानां च न्यञ्चनी ॥ २ ॥

2. Whoever drinketh thee hath life : thou savest and protectest man,
As nursing mother of mankind, thou takest all upon thy lap.

वृक्षंवृक्षमा रोहसि वृषण्यन्तीव कन्यला ।
जयन्ती प्रत्यातिष्ठन्ती स्परणी नाम वा असि ॥ ३ ॥

3. Thou clingest close to every tree, as a fond damsel clasps her love,
Thy name is called the Conqueror, She who Stands Fast, the Rescuer.

यद्दण्डेन यदिष्वा यद्यास्रुहंरसा कृतम् ।
तस्य त्वमसि निष्कृतिः सेमं निष्कृधि पूरुषम् ॥ ४ ॥

4. Whatever wound the arrow, or the staff, or violence inflicts,
Thereof thou art the remedy : as such restore this man to health.

भद्रात्प्लक्षाभिस्तिष्ठस्यश्वत्थात्स्वदिराद्ववात् ।
भद्रान्न्यग्रोधात्पर्णात्सा न एह्यरुन्धति ॥ ५ ॥

5. Thou springest from blest Plaxa, or Asvattha, Dhava, Khadira,
Parna, or blest Nyagrodha, so come thou to use, Arundhati.

हिरण्यवर्णे सुभगे सूर्यवर्णे वपुष्टमे ।
रुतं गछासि निष्कृते निष्कृतिर्नाम वा असि ॥ ६ ॥

6. Gold-coloured, bringing happy fate, most lovely, brilliant as the Sun,
Mayst thou, O Healing! come up to the fracture: Healing is thy name.

हिरण्यवर्णे सुभगे शुष्मे लोमशवक्षणे ।
अपामसि स्वसा लाक्षे वातो ह्यात्मा बभूव ते ॥ ७ ॥

7. Gold-coloured, bringing happy fate, odorous, hairy-bodied one,
The sister of the Waters are thou, Laksha! and thy Soul is Wind.

सिलाची नाम कानीनो ऽजबभ्रु पिता तव ।
अश्वो यमस्य यः श्यावस्तस्य ह्यास्नास्युक्षिता ॥ ८ ॥

8. Silachi is thy name : the sire, O goat-brown! is a damsel's son,
Thou hast been sprinkled by the mouth of yama's tawny-coloured horse.

अश्वस्यास्नः संपतिता सा वृक्षाँ अभि सिष्यदे ।
सरा पतत्रिणी भूत्वा सा न एह्यरुन्धति ॥ ९ ॥

9. Issuing from the horse's blood away she glided to the trees,
Become a winged water-brook, and come to us, Arundhati.

APPENDIX III

Unstructured Biographies

BIOGRAPHY NO. 1

NAME: Amratlal Chhaganlal Kharadi; Age: 60;

RELIGION: Hindu; CASTE: Suthar; OCCUPATION: Kharadi work;

ADDRESS: Kharadi Bazaar, Bank Road, Sankheda

My birthplace is Sankheda. Our ancestors had settled here after Pavagadh was captured by Muslims. The genealogical tree of my family is maintained by the Barot residing at Ahmedabad. In addition to lacquer work, my secondary work is carpentry from which I earn about Rs. 125 to 150 per month. My father learnt this craft and could make simple lacquerwares like cradle. Ichhabhai Premjibhai is my wife's grandfather. Thus my father and Ichhabhai Premjibhai learnt this craft together. Three of my uncles are doing lacquer work and one is engaged in carpentry and fitting work. I have studied up to 4th vernacular standard at Sankheda. I joined this craft when I was 9 years old and used to work beyond school hours. We are living in a joint family. My younger brother is also staying with me. I was offered service in the then Baroda State and was told to go to Germany under the patronage of the Baroda State.

I have married in Sankheda. My family house was sold for repayment of debt. The raw materials like wood, lac, tin, etc., are purchased from the market. An apprentice boy who is given a stipend of Rs. 25, assists me in my work. The craftsmen work with their own tools and implements. I used to work for 8 to 10 hours a day and also do tin-painting in addition.

The holidays observed are *amas, moti ekadashi* and other Hindu holidays. Working hours in monsoon are 5 to 6, as owing to moisture present in the air, the required shine on lacquer articles cannot be obtained. I get enough work for the last ten years, but the demand was slack formerly. New designs and art conceptions are introduced in this craft owing to the patronage from leading persons and aesthetic tastes of the people. The colours which are now available are not satisfactory, as they cannot stand in comparison with the former colours imported from Germany. I can prepare lacquered articles of any design, shape and variety and also produce the exact replica of the specimen given. One lacquered wooden table manufactured by me is in the Museum and Art Gallery at Baroda.

I enjoy good health and nobody working in this craft has ever contracted any occupational disease. I am habituated to tea, *bidi* and tobacco chewing and visit cinema 3 to 4 times in a month. I am not doing any public activity. I worship at home daily in the early morning and read religious scriptures. I also visit temples.

BIOGRAPHY NO. 2

NAME: Himatlal Mohanlal Kharadi; AGE: 52;
RELIGION: Hindu; CASTE: Suthar; OCCUPATION: Kharadi work;
ADDRESS: Kharadi Bazaar, Bank Road, Sankheda

All the Kharadi families in Sankheda belong to Pancholi subdivision, whose population is found in Dabhoi, Cambay, Baroda and Chandod. We, Pancholi Suthars have Barot for maintaining our genealogical trees. One of the Barots, named Virsinghbhai Bahadursing, is residing in Bhatvado, Shahpur, Ahmedabad.

We, Pancholis, were original inhabitants of Champaner and when Pavagadh was invaded by Muslims, our ancestors fled to different places. My grandfather Muljibhai settled at Sankheda. I studied up to primary sixth at Sankheda and left my studies as I did not like it and joined the carpentry business of my father.

My first marriage took place in the neighbouring village Bhatpur. My first wife died during confinement. Thereafter I remarried in Sankheda. Ichhabhai Premjibhai, the pioneer of this craft, was my maternal grandfather. My father Mohanlal knew only carpentry work and not Kharadi work. I learnt this craft from my maternal grandfather at the age of 10, and then started working on my own. In the beginning, I used to make small articles like toys but at the age of 14, I learnt the craft fully and started making cradle and other articles.

I was awarded a silver medal by the then *Gaikwad Sarkar* of Baroda State before 28 years and a certificate of merit from the Government of Madhya Pradesh 12 years ago for good mastery in lacquer work. A National Award for master craftsmen was recently given to me on 25 January, 1967 by the Government of India, New Delhi. I was appointed Art Supervisor at Indore by the Director of Industries, Lacquerware centre on a monthly salary of Rs. 150. I served there for one and a half years and left the job due to indifferent health. I was suffering from cancer before seven years, but recovered by the treatment of Ayurvedic medicine. I have got seven sons, aged 20, 16, 13, 12, 7, 3 and 1. Number 1, 2, 3 and 5 are studying and number four aged 12 has joined me in the craft. Two daughters aged 10 and 3 and one son aged two months have died.

Beautiful pieces of lacquerware furniture prepared by me in Ahmedabad are the Tajmahal table stand for Shri Mavlankar, the then speaker of Parliament. I have also made one folding swing costing about Rs. 1,300 for Sir Chinubhai of Ahmedabad. Generally the work is carried on by myself but when more orders are pending, I take help of hired workers from the village and from my community. The hired workers are paid Rs. 4 to 7 per day as daily wages depending upon their skill.

Various factors have influenced the working of the craft during last ten years. The quality of the workmanship and colour has also changed. Before 12 to 15 years, colours were imported from Germany and America, but at present local I. C. I. colours are used. The shapes and designs have changed during the last ten years, but there is no perceptible change in tools and implements.

A loan of Rs. 500 was taken by me in 1966 from 'Nagarik Sahakari Bank, Sankheda' for purchasing raw materials. The amount of loan was to be repaid after twelve months. This craft demands good physique and health. No occupational disability is suffered on account of this craft. Besides lacquer work, I am also working on carpentry and fitting work. I am habituated to tea, *bidi* and cigarette and also like to visit cinema. After taking bath in the early morning, I worship Lord Krishna and Hanuman and read religious books, if time permits.

The work remains closed on religious and festive days like Vishvakarma Jayanti, Janmashtami, Amavasya, Dassera and Dev Suti and Dev Uthi Ekadashi. I have visited Hardwar, Varanasi, Prayag, Calcutta, Gaya, Puri and Rameshvar. I desire to visit Dwarka and Vishvakarma temple at Ilorgadh.

BIOGRAPHY NO. 3

NAME : Niranjan Kantilal Suthar; AGE : 28;

RELIGION: Hindu; CASTE : Suthar;

OCCUPATION : Secretary, Sankheda Kamdar Sahakari Mandli Ltd.;

ADDRESS : Kharadi Bazaar, Bank Road, Sankheda

My birthplace as well as native place is Sankheda. My birthdate is 5th June, 1938. I have passed S. S. C. examination in the year 1958. After passing S. S. C., I joined the craft in the year 1958 and am working in the hereditary craft of the family. I was 16 years old when I took up carpentry work. I have married in Sankheda at the age of 24. After Pavagadh was ravaged by Muslims, Pancholi Suthars had settled at this place. We, Pancholi Suthars, do not interdine or intermarry with Suthars of other septs or sub-castes, namely, Vaishya, Mevada and Gujjar. If anybody from Pancholi group wants to wear a sacred thread, he has to go to the temple of Vishvakarma at Ilorgadh, 18 miles from Aurangabad in Maharashtra State, and perform the required religious ceremony. Sacred thread ceremony can also be performed at home after a visit to Vishvakarma at Ilorgadh. This ceremony involves an expenditure of Rs. 500 to 2,000.

My grandfather Mathurdas had worn a sacred thread after performing all the required religious rites at Vishvakarma temple at Ilorgadh. Nobody from my family has worn a sacred thread or gone to Vishvakarma temple at Ilorgagh thereafter.

I could not prosecute my studies further due to the poor economic condition of the family. In those days, there was no college at Sankheda and those desiring to study in college had to go to Baroda or Ahmedabad.

After undergoing a training for six months at 'Gujarat Sahakari Talim Shala, Surat' at my own expense, I joined as secretary of the cooperative society at Sankheda, in the year 1962. During the course of my training at Surat, I used to receive a stipend of Rs. 40 per month from the institution. At present, I draw a salary of Rs. 161 per month.

I also know carpentry and lacquer work. My father and brothers have gone outside and are engaged in construction work. They also know lacquer work. My grandfather worked in building construction. One of my uncles is working on building construction at Baroda. Another who is now dead, was serving in P. W. D. My other two uncles are engaged in lacquer work at Sankheda. This craft has expanded only recently, i.e., 1954-55, though it is practised since the last 70 years at Sankheda. Before 25 to 30 years, a cradle fetched Rs. 5 to 6 as against Rs. 55 at present as the raw materials like wood, lac and tin are very costly and the cost of living has gone very high. In this village, the craft was originally started by Ichhabhai Premjibhai. A sage, who had come to this village for begging alms, taught Ichhabhai how to prepare and utilise *kalai* used in this craft. From that day those who were working in building construction and carpentry turned to lacquer work.

APPENDIX IV

An Account of Pancholis of Sankheda given by Barot, a Genealogist

NAME: Virsingbhai Bahadursing Barot; AGE: 48;

BIRTHPLACE : Sidhpur; NATIVE PLACE : Ahmedabad;

OCCUPATION : Reading genealogical trees of clients;

ADDRESS : Shahpur, Bhatvado, Near Halimni Khadki, Ahmedabad

Vishvakarma, the divine architect, had four sons: (1) Mahidhar, (2) Vidyadhar, (3) Gangadhar and (4) Liladhar. The descendants of Mahidhar are known as Mevada, of Vidyadhar as Vaishya, of Gangadhar as Gurjar, and of Liladhar as Pancholi.

The ancestor of Pancholis was Liladhar, who first settled at Ilorgadh. Liladhar's son Samadhar first went to Bhateshwar, then to Patan and finally settled at Champaner. At Champaner he built a house and was granted 10 bighas land for maintenance by the ruler. This land is near Kalol in Panchmahals.

The Pancholis belong to Kavalash Gotra, Yajurveda, Tri Parva, and are of Madhyandini Shakha. Their tutelary Goddess is Chamunda. When Champaner was captured by Muslims, the descendants of Liladhar scattered themselves in different directions. One of the person went to Garmadia Pepdi in Malwa. Another, namely, Palobhai went to Sankheda in V. S. 1272 (1216 A. D.) on Magh Vad 2, Sunday. After Pancholis settled at Sankheda, they were divided into two subdivisions. One section stayed at Kharadivaga and started lacquer and turnery work. Another section resided in Suthar Faliya and followed carpentry work. They were, therefore, known as Suthar or carpenter.

Pancholi Suthar doing turnery work intermarry among Pancholis engaged in carpentry also. But the marriage within the same family is not permissible.

There is no change in the marriage, death and birth customs. They are hereditarily followed without a change. The marriage in the same sept is called *gotraghat*. The persons of the same *gotra* cannot intermarry till 71 generations. This is the religious belief.

We record the events of birth, death and marriage of our clients in our books. Previously the particulars like date, month and year of the events were not recorded, but now they are recorded in such details. We write these particulars when we visit our clients once after three to four years. It is not compulsory for Pancholis to wear a sacred thread, as it is for the males of other septs like Mevada and Vaishya. A sacred thread is taken after performing tonsorial ceremony. If the economic condition permits, the sacred thread is taken at Ilorgadh before Lord Vishvakarma.

GLOSSARY

A

Abh . . Cloud
Abri or *Abhri* . Cloud work, i.e., having the effect of cloud
Agarbatti . . An incense stick
Akik . . Agate stone
Ana . . Usually the occasion when a wife goes to her husband's house for the first time after marriage.
Arhar . . *Cajanus cajan*
Ari . . Iron spike
Athada . . Numerical figure 'eight'
Atishi . . Fire work

B

Babagadi . . Perambulator
Bajoth . . Low wooden seat
Batti . . Coloured sticks of lac
Bayun . . An adjustable wooden peg on the left side of a *sangheda*
Ber . . *Zizyphus jujuba*
Bhajan . . A devotional song
Bidi . . Indigenous cigarette
Boothu. lodhu . A blunt iron strip curved at the end used in cutting an article turned on lathe

C

Chaklo . . A wooden tripod used for rolling bread
Chipiyo . . A fork
Chokdi . . Check design

D

Dana . . Dots
Dandia . . Wooden sticks
Dhandhodi . . Bowstring
Dudhalo . . *Wrightia tinctoria*, a specie of wood

F

Fulvel . . A design called flower and creeper
Futpati . . Foot-ruler

G

Ghan . . A hammer
Ghodi . . A stand
Ghont . . *Zizyphus xylopyra*
Gilli danda . A country game of trip-stick played by children
Gol . . Round

H

Harkalai . . A silvery white paste made from tinfoil

I

Inam . . Gift, prize

J

Jajmani . . Customary relationship for performance of certain traditional services paid in kind
Jali . . Lattice, pierced or perforated pattern
Jallari . . *Shorea talura*
Jayanti . . Birth anniversary

K

Kalai . . Tinfoil
Kanas . . File
Kankavati . . A wooden bowl for keeping red turmeric powder or *kumkum* mixed with water
Kanta-tola . . Scales and weights
Karvat . . A saw
Katora . . A jug
Kevda . . *Pandanus odoratissimus*
Khair . . *Acacia catechu*
Kharadi . . An artisan working on lathe
Kharadi kam . Lathe-turnery
Khila . . A wooden peg attached to the right side of a lathe and fixed in the ground
Kirtan . . A devotional song
Kosh . . An iron rod flattened and sharpened at the end used in digging
Kuhadi . . An axe
Kul or *gotra* . Sept
Kumkum . . Red turmeric powder
Kusum tree . *Schleichera oleosa*
Kutcha . . Raw; of dried mud

L

Laher . . A wave
Lakh . . Lac
Laksha . . One hundred thousand
Lakshagrih or *Jadugrih* . . A palace of lac
Lakshataru . . Lac tree
Lapi . . A paste prepared of waste lac and clay
Lasania . . A variety of agate stone
Lelo or *Vinjanu* . Scrapers and chisels

M

Manchi . . A wooden seat
Minda or *tapka* . Dots

N

Nakshi . . Design work

O

Ojar Ghasiyo . Emery stone

P

Pakkad . . Pliers
Palas . . *Butea frondosa*
Pallu . . Cash amount given to the bride at the time of marriage
Pan . . Betel-leaf
Panch . . Executive body of the village panchayat or caste panchayat
Patvanu . . A kind of chisel

R

Randho . . A plane
Ras . . Folk-dance of Gujarat and Saurashtra
Rotalo . . A loaf

S

Sag . . Teak wood; *Tectona grandis*
Sangheda . . Hand-operated lathe
Saras or *Saresh* . Glue
Shardi . . A drill
Sutradhar . . A holder of a string, i.e., a carpenter
Swastik . . An auspicious mark; A cross with arms bent at right angles

T

Thikru . . A polishing stick made of lac waste and glass powder
Tikoni . . Triangular
Tran pankhadi . Designs of three petals

V

Vago or *Wada* . Locality
Vali . . Round small pieces of wood
Vanslo . . Adze
Vel . . A creeper
Velan . . A rolling pin
Veraki . . A pointed chisel

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Current Book House, Maruti Lane, Raghunath Dadaji St.
Current Technical Literature Co., Private Ltd., India House, 1st Floor
International Book House Ltd., 9, Ash Lane, M. G. Road
Lakkani Book Depot, Girgaum
Elpees Agencies, 24, Bhangwadi, Kalbadevi
P. P. H. Book Stall, 190-B, Khetwadi Main Road
New Book Co. 188-190, Dr. Dadabhai Naoroji Road
Popular Book Depot, Lamington Road
Sunder Das Gian Chand, 601, Girgaum Road, Near Princess Street

List of Agents-*contd.*

BOMBAY-*contd.*

D. B. Taraporewala Sons & Co., (P) Ltd., 210, Dr. Dadabhai Naoroji Road
Thacker & Co., Rampart Row
N. M. Tripathi Private Ltd., Princess Street
The Kothari Book Depot, King Edward Road
P. H. Rama Krishna & Sons, 147, Rajaram Bhuvan, Shivaji Park Road No. 5 (R)
C. Jamnadas & Co., Booksellers, 146-C, Princess St.
Indo Nath & Co., A-6, Daulat Nagar, Borivli
Minerva Book Shop, Shop No. 1/80, N. Subhas Road
Academic Book Co., Association Building, Girgaum Road (R)
Dominion Publishers, 23, Bell Building, Sir P. M. Road (R)
Bombay National History Society, 91 Walkeshwar Road (R)
Dowamadeo & Co., 16, Naziria Building, Ballard Estate (R)
Asian Trading Co., 310, the Miraball, P.B. 1505 (R)

CALCUTTA—

Chatterjee & Co., 3/1, Bacharam Chatterjee Lane
Dass Gupta & Co., Ltd., 54/3, College Street
Hindu Library, 69 A, Bolaram De Street
S. K. Lahiri & Co., Private Ltd., College Street
M. C. Sarkar & Sons Private Ltd., 14, Bankim Chatterjee Street
W. Newman & Co., Ltd., 3, Old Court House Street
Oxford Book and Stationery Co., 17, Park Street
R. Chambray & Co., Ltd., Kent House, P. 33, Mission Road Extension
S. C. Sarkar & Sons Private Ltd., I.C. College Square
Thacker Spink & Co., (1933) Private Ltd., 3, Esplanade East
Firma K. L. Mukhopadhaya, 6/1A, Banchha Ram Akrar Lane
K. K. Roy, P. Box No. 10210, Calcutta-19 (R)
Sm. P. D. Upadhyay, 77, Muktaram Babu Street (R)
Universal Book Dist., 8/2, Hastings Street (R)
Modern Book Depot, Chowringhee Centre (R)
Soor & Co., 125, Canning Street
S. Bhattacharjee, 49, Dharamtala Street (R)
Mukherjee Library, 10, Sarba Khan Road
Current Literature Co., 208, Mahatma Gandhi Road
The Book Depository, 4/1, Madan Street (1st Floor) (R)
Scientific Book Agency, Netaji Subhash Road (R)
Reliance Trading Co., 17/1, Banku Bihari Ghose Lane, District Howrah (R)
Indian Book Dist. Co., 6512, Mahatma Gandhi Road (R)

CALICUT—

Touring Book Stall (R)

CHANDIGARH—

Superintendent, Government Printing & Stationery, Punjab
Jain Law Agency, Flat No. 8, Sector No. 22
Rama News Agency, Booksellers, Sector No. 22
Universal Book Store, Booth 25, Sector 22-D
English Book Shop, 34, Sector 22-D (R)
Mehta Bros., 15-Z, Sector 22-B (R)
Tandan Book Depot, Shopping Centre, Sector 16 (R)
Kailash Law Publishers, Sector 22-B (R)

CHHINDWARA—

The Verma Book Depot (R)

COCHIN—

Saraswat Corporation Ltd., Palliarakav Road

CUTTACK—

Press Officer, Orissa Sectt.
Cuttack Law Times
Prabhat K. Mahapatra, Mangalabag, P.B. 35
D. P. Sur & Sons, Mangalabag (R)
Utkal Stores, Balu Bazar (R)

DEHRADUN—

Jugal Kishore & Co., Rajpur Road
National News Agency, Paltan Bazar
Bishan Singh and Mahendra Pal Singh, 318, Chukhuwala
Utam Pustak Bhandar, Paltan Bazar (R)

DELHI—

J. M. Jaina & Brothers, Mori Gate
Atma Ram & Sons, Kashmere Gate
Federal Law Book Depot, Kashmere Gate
Bahri Bros., 188, Lajpat Rai Market
Bawa Harkishan Dass Bedi (Vijaya General Agencies) P.B. 2027, Ahata Kedara, Chamalian Road
Book-Well, 4, Sant Narankari Colony, P. B. 1565
Imperial Publishing Co., 3, Faiz Bazar, Daryaganj
Metropolitan Book Co., 1, Faiz Bazar
Publication Centre, Subzimandi
Youngman & Co., Nai Sarak,
Indian Army Book Depot, 3, Daryaganj
All India Educational Supply Co., Shri Ram Buildings, Jawahar Nagar (R)
Dhanwant Medical & Law Book House, 1522, Lajpat Rai Market (R)
University Book House, 15, U. B. Bangalore Road, Jawahar Nagar (R)
Law Literature House, 2646, Balimaran (R)
Summer Brothers, P. O. Birla Lines (R)
Universal Book & Stationery Co., 16, Netaji Subhash Marg
B. Nath & Bros., 3808, Charkhawalan (Chowri Bazar) (R)
Rajkamal Prakashan Private Ltd., 8, Faiz Bazar
Premier Book Co., Printers, Publishers & Booksellers, Nai Sarak (R)
Universal Book Traders, 80, Gokhle Market
Tech. & Commercial Book Coy., 75, Gokhle Market (R)
Saini Law Publishing Co., 1416, Chabiganj, Kashmere Gate (R)
G. M. Ahuja, Booksellers & Stationers, 309, Nehru Bazar (R)
Sat Narain & Sons, 3141 Mohd. Ali Bazar, Mori Gate

List of Agents-*contd.*

DELHI-*contd.*

Kitab Mahal (Wholesale Div.) Private Ltd., 28, Faiz Bazar
Hindu Sahitya Sansar, Nai Sarak (R)
Munshi Ram Manohar Lal, Oriental Booksellers & Publishers, P. B. 1165, Nai Sarak (R)
K. L. Seth, Suppliers of Law, Commercial, Tech. Books, Shanti Nagar, Ganeshpura (R)
Adarsh Publishing Service, 5A/10 Ansari Road (R)

DHANBAD—

Ismag Co-operative Stores Ltd., P. O. Indian School of Mines
New Sketch Press, Post Box 26 (R)

DHARWAR—

The Agricultural College Consumers Co-op. Society (R)
Rameshraya Book Depot, Subhas Road (R)
Karnatakaya Sahitya Mandira of Publishers and Booksellers

ERNAKULAM—

Pai & Co., Cloth Bazar Road (R)
South India Traders C/o Constitutional Journal

FEROZEPUR—

English Book Depot, 78, Jhoke Road

GAUHATI—

Mokshada Pustakalaya

GAYA—

Sahitya Sadan, Gautam Budha Marg

GHAZIABAD—

Jayana Book Agency (R)

GORAKHPUR—

Vishwa Vidyalaya Prakashan, Nakhes Road

GUDUR—

The General Manager, The N.D.C. Publishing & Ptg. Society Ltd. (R)

GUNTUR—

Book Lovers Private Ltd., Kadriguda, Chowrasta

GWALIOR—

Superintendent, Printing & Stationery, M.B.
Loyal Book Depot, Patankar Bazar, Lashkar
M. C. Daftari, Prop. M. B. Jain & Bros., Booksellers, Sarafa, Lashkar (R)

HUBLI—

Pervaje's Book House, Koppikar Road

HYDERABAD—

Director, Government Press
The Swaraj Book Depot, Lakdikapul
Book Lovers Private Ltd. (R)
Labour Law Publications, 873, Sultan Bazar (R)

IMPHAL—

Tikendra & Sons, Booksellers (R)

INDORE—

Wadhwa & Co., 56, M. G. Road
Swarup Brother's, Khajuri Bazar (R)
Madhya Pradesh Book Centre, 41, Ahilya Pura (R)
Modern Book House, Shiv Vilas Palace (R)
Navyug Sahitya Sadan, Publishers & Booksellers, 10, Khajuri Bazar (R)

JABALPUR—

Modern Book House, 286, Jawaharganj
National Book House, 135 Jai Prakash Narain Marg (R)

JAIPUR—

Government Printing and Stationery Department, Rajasthan
Bharat Law House, Booksellers & Publishers, Opp., Prem Prakash Cinema
Garg Book Co., Tripolia Bazar
Vani Mandir, Sawai Mansingh Highway
Kalyan Mal & Sons, Tripolia Bazar (R)
Popular Book Depot, Chaura Rasta
Krishna Book Depot, Chaura Rasta (R)
Dominion Law Depot, Shah Building, P.B. No. 23 (R)

JAMNAGAR—

Swadeshi Vastu Bhandar

JAMSHEDPUR—

Amar Kitab Ghar, Diagonal Road, P. B. 78
Gupta Stores, Dhatkidih
Sanyal Bros., Booksellers & News Agents, Bistapur Market (R)

JAWALAPUR—

Sahyog Book Depot (R)

JHUNJHUNU—

Shashi Kumar Sarat Chand (R)
Kapram Prakashan Prasaran, 1/90 Namdha Niwas, Azad Marg (R)

JODHPUR—

Dwarka Das Rathi, Wholesale Books and News Agents
Kitab-Ghar, Sojati Gate
Choppra Brothers, Tripolia Bazar

JULLUNDUR—

Hazooria Bros., Mai Hiran Gate (R)
Jain General House, Bazar Bansanwala
University Publishers, Railway Road (R)

KANPUR—

Advani & Co., P. Box 100, The Mall
Sahitya Niketan, Shradhanand Park
The Universal Book Stall, The Mall
Raj Corporation, Raj House, P. B. 200, Chowk (R)

KARUR—

Shri V. Nagaraja Rao, 26, Srinivasapuram (R)

KODARMA—

The Bhagwati Press, P.O. Jhumri Tilaiya, Dt.Hazaribag

KOLHAPUR—

Maharashtra Granth Bhandar, Mahadwar Road (R)

KOTA—

Kota Book Depot (R)

KUMTA—

S. V. Kamat, Booksellers & Stationers (N. Kanara)

LUCKNOW—

Soochna Sahitya Depot (State Book Depot)
Balkrishna Book Co., Ltd., Hazratganj
British Book Depot, 84, Hazratganj

List of Agents-*contd.*

LUCKNOW-*contd.*
- Ram Advani, Hazratganj, P. B. 154
- Universal Publishers (P) Ltd., Hazratganj
- Eastern Book Co., Lalbagh Road
- Civil & Military Educational Stores, 106/B Sadar Bazar (R)
- Acquarium Supply Co., 213, Faizabad Road (R)
- Law Book Mart, Amin-Ud-Daula Park (R)

LUDHIANA—
- Lyall Book Depot, Chaura Bazar
- Mohindra Brothers, Katcheri Road (R)
- Nanda Stationery Bhandar, Pustak Bazar (R)
- The Pharmacy News, Pindi Street (R)

MADRAS—
- *Superintendent, Government Press, Mount Road*
- Account Test Institute, P. O. 760 Emgore
- C. Subbiah Chetty & Co., Triplicane
- K. Krishnamurty, Post Box 384
- Presidency Book Supplies, 8, Pycroft Road, Triplicane
- P. Vardhachary & Co., 8, Linghi Chetty Street
- Palani Parchuram, 3, Pycrofts Road, Triplicane
- NCBH Private Ltd., 199, Mount Road (R)
- V. Sadanand, The Personal Bookshop, 10, Congress Buildings, 111, Mount Road (R)

MADURAI—
- Oriental Book House, 258, West Masi Street
- Vivekananda Press, 48, West Masi Street

MANDYA SUGAR TOWN—
- K. N. Narimhe Gowda & Sons (R)

MANGALORE—
- U. R. Shenoye Sons, Car Street, P. Box 128

MANJESHWAR—
- Mukenda Krishna Nayak (R)

MATHURA—
- Rath & Co., Tilohi Building, Bengali Ghat (R)

MEERUT—
- Prakash Educational Stores, Subhas Bazar
- Hind Chitra Press, West Kutchery Road
- Loyal Book Depot, Chhipi Tank
- Bharat Educational Stores, Chhippi Tank (R)
- Universal Book Depot, Booksellers & News Agents (R)

MONGHYR—
- Anusandhan, Minerva Press Buildings (R)

MUSSOORIE—
- Cambridge Book Depot, The Mall (R)
- Hind Traders (R)

MUZAFFARNAGAR—
- Mittal & Co., 85-C, New Mandi (R)
- B. S. Jain & Co., 71, Abupura (R)

MUZAFFARPUR—
- Scientific & Educational Supply Syndicate
- Legal Corner, Tikmanio House, Amgola Road (R)
- Tirhut Book Depot (R)

MYSORE—
- H. Venkataramiah & Sons, New Statue Circle
- Peoples Book House, Opp., Jagan Mohan Palace
- Geeta Book House, Booksellers & Publishers Krishnamurthipuram (R)
- News Paper House, Lansdowne Building (R)
- Indian Mercantile Corporation, Toy Palace Ramvilas(R)

NADIAD—
- R. S. Desay Station Road (R)

NAGPUR—
- Superintendent, Government Press & Book Depot
- Western Book Depot, Residency Road
- The Asstt. Secretary, Mineral Industry Association, Mineral House (R)

NAINITAL—
- Coural Book Depot, Bara Bazar (R)

NANDED—
- Book Centre, College Law General Books, Station Road (R)
- Hindustan General Stores, Paper & Stationery Merchants, P. B. No. 51 (R)
- Sanjoy Book Agency, Vazirabad (R)

NEW DELHI—
- Amrit Book Co., Connaught Circus
- Bhawani & Sons, 8-F, Connaught Place
- Central News Agency, 23/90, Connaught Circus
- Empire Book Depot, 278 Aliganj
- English Book Stores, 7-L, Connaught Circus, P.O.B. 328
- Faqir Chand & Sons, 15-A, Khan Market
- Jain Book Agency, C-9, Prem House, Connaught Place
- Oxford Book & Stationery Co., Scindia House
- Ram Krishna & Sons (of Lahore) 16/B, Connaught Place
- Sikh Publishing House, 7-C, Connaught Place
- Suneja Book Centre, 24/90, Connaught Circus
- United Book Agency, 31, Municipal Market, Connaught Circus
- Jayana Book Depot, Chhaparwala Kuan, Karol Bagh
- Navayug Traders, Desh Bandhu Gupta Road, Dev Nagar
- Saraswati Book Depot, 15, Lady Harding Road
- The Secretary, Indian Met. Society, Lodi Road
- New Book Depot, Latest Books, Periodicals, Sty. & Novelles, P. B. 96, Connaught Place
- Mehra Brothers, 50-G, Kalkaji
- Luxmi Book Stores, 42, Janpath (R)
- Hindi Book House, 82, Janpath (R)
- People Publishing House (P) Ltd., Rani Jhansi Road
- R. K. Publishers, 23, Beadon Pura, Karol Bagh (R)
- Sharma Bros., 17, New Market, Moti Nagar
- Aapki Dukan, 5/5777, Dev Nagar (R)
- Sarvodaya Service, 66A-1, Rohtak Road, P. B. 2521 (R)
- H. Chandson, P. B. No. 3034 (R)
- The Secretary, Federation of Association of Small Industry of India, 23-B/2, Rohtak Road (R)
- Standard Booksellers & Stationers, Palam Enclave (R)
- Lakshmi Book Depot, 57, Regarpura (R)
- Sant Ram Booksellers, 16, New Municipal Market Lody Colony (R)

PANJIM—
- Singhals Book House P.O.B. 70 Near the Church (R)
- Sagoon Gaydev Dhoud, Booksellers, 5-7 Rua, 3 Idc Jameria (R)

PATHANKOT—
- The Krishna Book Depot, Main Bazar (R)

List of Agents-*contd.*

PATIALA—
Superintendent, Bhupendra State Press
Jain & Co., 17, Shah Nashin Bazar

PATNA—
Superintendent, Government Printing (Bihar)
J. N. P. Agarwal & Co., Padri-Ki-Haveli, Raghunath Bhawan
Luxmi Trading Co., Padri-Ki-Haveli
Moti Lal Banarsi Dass, Bankipore
Bengal Law House, Chowhatta (R)

PITHORAGARH—
Maniram Punetha & Sons (R)

PONDICHERRY—
M/s. Honesty Book House, 9 Rue Duplix (R)

POONA—
Deccan Book Stall, Deccan Gymkhana
Imperial Book Depot, 266, M. G. Road
International Book Service, Deccan Gymkhana
Raka Book Agency, Opp., Natu's Chawl, Near Appa Balwant Chowk
Utility Book Depot, 1339, Shivaji Nagar (R)

PUDUKOTTAI—
Shri P. N. Swaminathan Sivam & Co., East Main Road (R)

RAJKOT—
Mohan Lal Dossabhai Shah, Booksellers and Sub-Agents

RANCHI—
Crown Book Depot, Upper Bazar
Pustak Mahal, Upper Bazar (R)

REWA—
Superintendent, Government State Emporium V. P.

ROURKELA—
The Rourkela Review (R)

SAHARANPUR—
Chandra Bharata Pustak Bhandar, Court Road (R)

SECUNDERABAD—
Hindustan Diary Publishers, Market Street

SILCHAR—
Shri Nishitto Sen, Nazirpatti (R)

SIMLA—
Superintendent, Himachal Pradesh Government
Minerva Book Shop, The Mall
The New Book Depot 79, The Mall

SINNAR—
Shri N. N. Jakhadi, Agent, Times of India, Sinnar (Nasik) (R)

Government of India Kitab Mahal, Janpath, Opp., India Coffee House, New Delhi
Government of India Book Depot, 8 Hastings Street, Calcutta
} For local sales

SHILLONG—
The Officer-in-Charge, Assam Government, B. D. Chapla Bookstall, P. B. No. 1 (R)

SONEPAT—
United Book Agency

SRINAGAR—
The Kashmir Bookshop, Residency Road

SURAT—
Shri Gajanan Pustakalaya, Tower Road

TIRUCHIRPALLI—
Kalpana Publishers, Wosiur
S. Krishnaswami & Co., 35, Subhash Chander Bose Road
Palamiappa Bros. (R)

TRIVANDRUM—
International Book Depot, Main Road
Reddear Press & Book Depot, P. B. No. 4 (R)

TUTICORIN—
Shri K. Thiagarajan, 10-C, French Chapal Road (R)

UDAIPUR—
Jagdish & Co., Inside Surajapole (R)
Book Centre, Maharana, Bhopal Consumers, Co-op. Society Ltd. (R)

UJJAIN—
Manek Chand Book Depot, Sati Gate (R)

VARANASI—
Students Friends & Co., Lanka (R)
Chowkhamba Sanskrit Series Office, Gopal Mandir Road, P. B. 8
Glob Book Centre (R)
Kohinoor Stores, University Road, Lanka
B.H.U. Book Depot (R)

VELLORE—
A. Venkatasubhan, Law Booksellers

VIJAYAWADA—
The Book & Review Centre, Eluru Road, Governpet (R)

VISAKHAPATNAM—
Gupta Brothers, Vizia Building
Book Centre, 11/97, Main Road
The Secy. Andhra University, General Co-op. Stores Ltd. (R)

VIZIANAGRAM—
Sarda & Co. (R)

WARDHA—
Swarajeya Bhandar, Bhorji Market

High Commissioner for India in London, India House, London, W. C. 2

List of Agents-*concld.*

Railway Book-stall holders

S/S. A. H. Wheeler & Co., 15, Elgin Road, Allahabad

Gahlot Bros., K. E. M. Road, Bikaner

Higginbothams & Co., Ltd., Mount Road, Madras

M. Gulab Singh & Sons, Private Ltd., Mathura Road, New Delhi

Foreign

S/S. Education Enterprise Private Ltd., Kathumandu (Nepal)

S/S. Aktie Bologat, C. E. Fritzes Kungl, Hovobokhandel, Fredsgation-2 Box 1656, Stockholm-16, (Sweden)

Reise-und Verkehrsverlag Stuttgart, Post 730, Gutenberg-stra 21, Stuttgart No. 11245, Stuttgart den (Germany West)

Shri Iswar Subramanyam 452, Reversite Driv Apt. 6, New York, 27 N W Y

The Proprietor, Book Centre, Lakshmi Mansions, 49, The Mall, Lahore (Pakistan)

(On S & R Basis)

The Head Clerk, Govt. Book Depot, Ahmedabad

The Asstt. Director, Extension Centre, Kapileshwar Road, Belgaum

The Employment Officer, Employment Exchange, Dhar

The Asstt. Director, Footwear Extension Centre, Polo Ground No. 1, Jodhpur

The Officer I/C., Extension Centre, Club Road, Muzaffarpur

The Director, Indian Bureau of Mines, Govt. of India, Ministry of Mines & Fuel, Nagpur

The Asstt. Director, Industrial Extension Centre, Nadiad (Gujarat)

The Head Clerk, Photozincographic Press, 5, Finance Road, Poona

Government Printing & Stationery, Rajkot

The Officer I/C., Extension Centre, Industrial Estate, Kokar, Ranchi

The Director, S. I. S. I. Industrial Extension Centre, Udhna, Surat

The Registrar of Companies, Narayani Building, 27, Erabourne Road, Calcutta-1

The Registrar of Companies, Kerala, 50, Feet Road, Ernakulam

The Registrar of Companies, H. No. 3-5-83, Hyderguda, Hyderabad

Registrar of Companies, Assam, Manipur and Tripura, Shillong

Registrar of Companies, Sunlight Insurance Building, Ajmeri Gate Extension, New Delhi

The Registrar of Companies, Punjab and Himachal Pradesh, Link Road, Jullundur City

Registrar of Companies, Bihar, Jammal Road, Patna-1

Registrar of Companies, Raj, & Ajmer; Shri Kamta Prasad House, 1st Floor, 'C' Scheme, Ashok Marg, Jaipur

The Registrar of Companies, Andhra Bank Building, 6 Linghi Chetty Street, P. B. 1530, Madras

The Registrar of Companies, Mahatma Gandhi Road, West Cott. Bldg. P. B. 334, Kanpur

The Registrar of Companies, Everest 100, Marine Drive, Bombay

The Registrar of Companies, 162, Brigade Road, Bangalore

The Registrar of Companies, Gwalior

Asstt. Director, Extension Centre, Bhuli Road, Dhanbad

Registrar of Companies, Orissa, Cuttack Candhi, Cuttack

The Registrar of Companies, Gujarat State, Gujarat Samachar Building, Ahmedabad

Publication Division, Sales Depot, North Block, New Delhi

The Development Commissioner, Small Scale Industries, New Delhi

The Officer I/C., University Employment Bureau, Lucknow

Officer I/C., S. I. S. I. Extension Centre, Malda

Officer I/C., S. I. S. I. Extension Centre, Habra, Tabaluria, 24 Parganas

Officer I/C., S. I. S. I. Model Carpentry Workshop, Piyali Nagar, P. O. Burnipur

Officer I/C., S. I. S. I. Chrontanning Extension Centre, Tangra 33, North Topsia Road, Calcutta-46

Officer I/C., S.I.S.I. Extension Centre, (Footwear), Calcutta

Asstt. Director, Extension Centre, Hyderabad

Asstt. Director, Extension Centre, Krishna Distt. (A.P.)

Employment Officer, Employment Exchange, Jhabua

Dy. Director Incharge, S.I.S.I., C/o Chief Civil Admn. Goa, Panjim

The Registrar of Trade Unions, Kanpur

The Employment Officer, Employment Exchange, Gopal Bhavan, Mornia

The Officer I/C., State Information Centre, Hyderabad

The Registrar of Companies, Pondicherry

The Asstt. Director of Publicity and Information, Vidhana Soudha (P. B. 271) Bangalore