CENSUS OF INDIA 1981

SERIES 16

ORISSA

PART - XD

HANDICRAFT SURVEY REPORT
BELL - METAL PRODUCTS

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CONTENTS

FOREWORD

The Indian handicrafts are known the world over for their rich variety, grace, elegance and skilled craftsmanship. Nevertheless a number of handicrafts because of their stiff competition with factory made products, non-availability of raw materials exorbitant increase in the manufacturing cost, lack of proper marketing facilities for finished products or due to a variety of other reasons have either become extinct or have reached the moribund stage. After independence, however a number of schemes were introduced by different government agencies for their growth and development but still this sudden impetus have helped only a few crafts to flourish and thereby become spinners of foreign exchange for the counrty.

Despite the unique position being enjoyed by the handicrafts especially in the realm of national economy, the general awareness among the people in the country about our crafts and craftsmen had been deplorably poor. Nothing was practically known about the commodities produced, techniques employed for the manufacture of different objects, raw materials used, their availability, methods adopted for the sale of finished products etc. An attempt was therefore made in connection with the 1961 census to study about 150 crafts from different parts of the country with a view to providing basic information on those crafts which were selected for the study.

At the 1971 census, the study on handicrafts was not taken up but this was again revived in connection with the 1981 census. There has been, however, some difference between the studies taken up in connection with the censuses of 1961 and 1981. While the 1961 studies have covered both rural and urban crafts, the 1981 studies have focussed their attention only on traditional rural based crafts. That apart, the 1981 studies besides touching upon those aspects which were covered under the 1961 series, have laid emphasis on matters that are vital for the revival of rural crafts and thereby for the rejuvenation of the economy of the region particularly the villages. This is in consonance with the policy of the government to give due importance to the rural sector with focus on employment intensive strategy of development in which next to agriculture, the small scale industries and handicrafts play a significant role.

The formats required for undertaking the study were formulated by Dr. K. P. Ittaman under the able guidance of Dr. N. G. Nag, the then Deputy Registrar General, Social Studies Division. Dr. Ittaman who succeeded Dr. Nag as Deputy Registrar General, Social Studies Division co-ordinates the study undertaken in different States/Union Territories by the Directorates of Census Operations. The reports

received from the Directorates were examined by Shri M.K. Jain, Senior Research Officer with the help of Smt. Suman Prashar, Assistant Director of Census Operations and Shri Shyam Singh, Junior Investigator. I am grateful to all of them for organising this study.

The present report is the outcome of a study undertaken on rural based handicraft survey report on Bell-metal products by the Directorate of Census Operations, ORISSA. I have immense pleasure in acknowledging the services rendered by Shri S.K. Swain, Deputy Director and his colleagues in the Census Directorate for bringing out this publication.

New Delhi,
the 1st June, 1988.

V.S. VERMA
Registrar General, India.

PRÈFACE

The Indian Census has a long tradition of undertaking a variety of social study projects of topical interest besides the decennial enumeration of population. In fact the earlier Census publications contain information on racial, cultural, social, economical, linguistic and a number of other aspect of life of the people of this country. The main purpose of these social study projects is to present a complete picture of a man in his socio-cultural and economic settings both at macro and micro levels which is rather essential to fulfil the needs for policy decision and developmental planning. Accordingly, in 1961 Census social study projects like rural arts and crafts, fairs and festivals etc. were taken up by this directorate besides special study on some villages. Subsequently some villages were taken up for re-study along with study of some towns of the State for giving a complete coverage of the people living in diverse socio-economic settings as an ancillary to 1971 Census. However, study on handicraft was not taken up at that time. But again as an ancillary to 1981 Census handicraft projects as that of 1961 are taken up as a special study but with a difference in scope. This time much importance is given on traditional rural based crafts, emphasizing those aspects of the craft that are vital for their survival and thereby rejuvenating the economy of the village and by the by of the region also.

The antiquity of Indian metal sculpture though dates back to 360 A.D., in Orissa the bell-metal craft reached its height of perfection during the rule of Ganga kings from 11th Century onwards. The royal patronage brought extensive popularity of the products and in course of time the craft began to grow in range and variety. From the level of a few domestic equipments which originally constituted the limited field of the industry, it spread in various directions of utilitarian and ritualistic fields. And finally it trickled down to the households of well-to-do and common men of the society. In this manner, a flourishing market developed. The excellence and universality of the products created opportunities for extensive extra territorial markets. The bell-metal products of Orissa found a regular market in the neighbouring state of West Bengal and other areas besides meeting the growing demands at home. The industry was prosperous when raw materials were available abundantly and the competitions from other industries was less pronounced. But the craft experienced many vicissitudes during different periods of time and at present it comes across constraints on account of non-availability of raw materials and unassured credit facilities. However, the future of bell-metal as a village craft is very bleak and can be further revived only if assured credit facilities and raw materials are provided to the artisans.

The present report is the result of a comprehensive field study on rural based Handicraft Survey Report on Bell-metal products embracing different

aspects of the craft including the present condition in which it exists, availability of raw materials, details of working technique, improvement of quality and design, competition with its counterparts in the market, problems relating to marketing and finance, reasons for its decay and prospects of rejuvenation, etc.

The field investigation, tabulation and report writing of this project are done by the officials of Census Directorate, Orissa, under the supervision of Shri C.R. Mohanty, Assistant Director of Census Operations (Tech.). I myself have edited the final draft.

I must record my deepest sense of gratitude to Shri P. Padmanabha, I.A.S. ex-Registrar General and Shri V.S. Verma, I.A.S. present Registrar General India for their valuable guidance. I am grateful to Dr. N.G. Nag, ex-Deputy Registrar General, India, Dr. K.P. Ittaman, present Deputy Registrar General, India and Shri M.K. Jain, Senior Research Officer and his colleagues of the Social Study Division of Registrar General's Office and Shri B.P. Jain, Deputy Director, Printing and other officers of the office of the Registrar General, for their valuable help extended to us at every stage in bringing out this publication.

In my own office I received all help from my officers and staff who worked diligently and with devotion. The names of officials of this Directorate closely associated with this work are given separately. My thanks are also due to them.

Bhubaneswar

S.K. SWAIN
Deputy Director of Census

ACKNOWLEDGEMENT

Field Survey and Tabulation:

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2. Shri D.C. Sahoo, Statistical Assistant
3. Shri P.K. Sahu, Statistical Assistant
4. Shri A.K. Dey, Statistical Assistant
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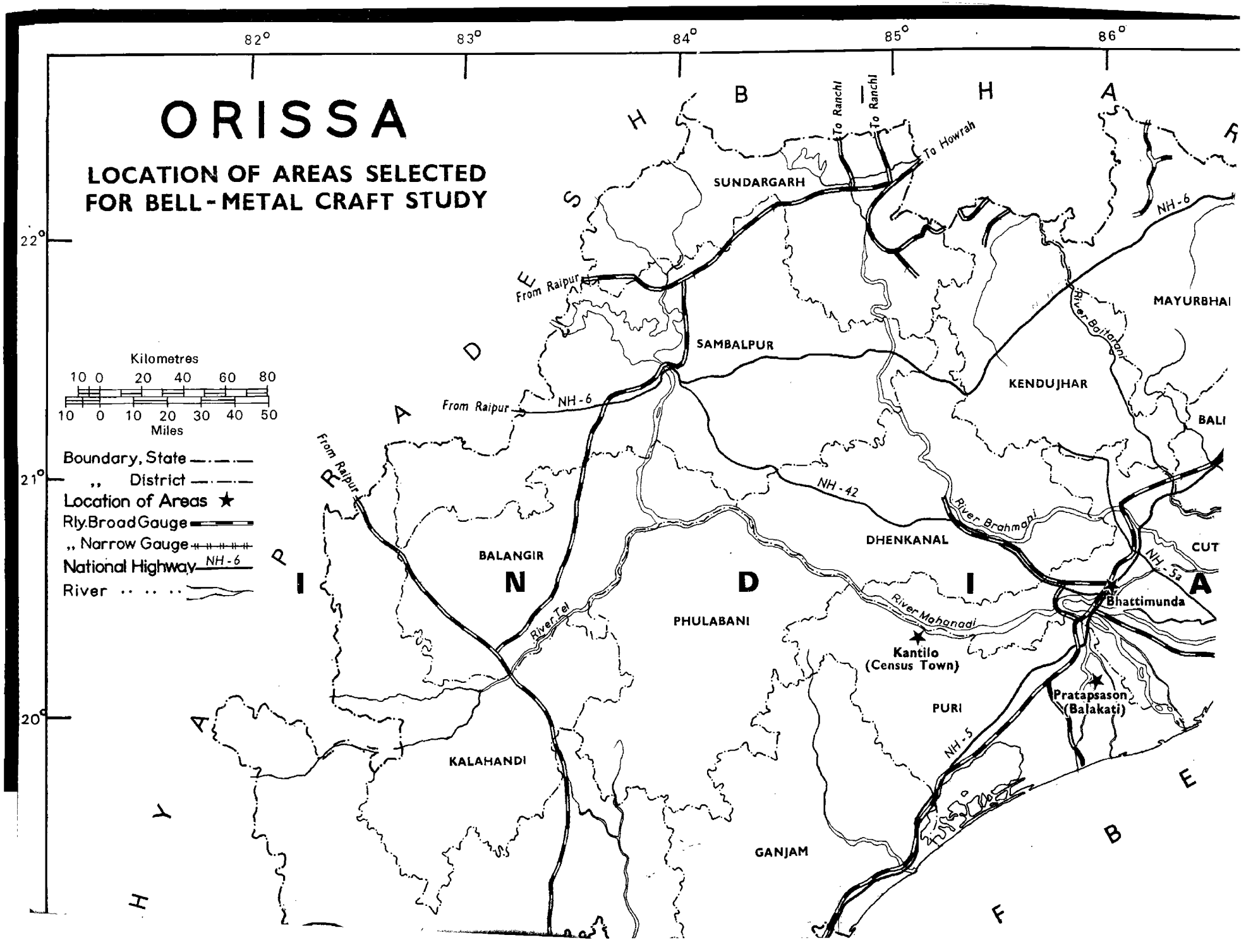
Printing:

1. Shri B.K. Sahu, Printing Inspector
2. Shri D.N. Mishra, Proof Reader


ORISSA
LOCATION OF AREAS SELECTED FOR BELL-METAL CRAFT STUDY
82°
83°
84°
85°
86°
22°
21°
20°
Kilometres
10 0 20 40 60 80
10 0 10 20 30 40 50
Miles
Boundary, State
,, District
Location of Areas
Rly. Broad Gauge
,, Narrow Gauge
National Highway NH-6
River
SUNDARGARH
SAMBALPUR
BALANGIR
KALAHANDI
PHULABANI
KENDUJHAR
MAYURBHAI
BALI
DHENKANAL
CUT
PURI
GANJAM
Bhattimunda
Kantilo (Census Town)
Pratapsason (Balakati)
From Raipur
To Ranchi
To Howrah
NH-6
NH-42
NH-5a
NH-5
River Tel
River Mahanadi
River Brahmani
River Baitarani

CHAPTER 1

HISTORY OF ORIGIN AND DEVELOPMENT OF THE CRAFT

Introduction

The metal handicrafts owe a very ancient lineage in India. The genesis of metal handicrafts in India can be traced way back to Indus valley civilization. Even from those days or earlier the Indian people have retained their aesthetic appreciation for cultural values, creative ingenuity and the artistic genius of their remote ancestors.

Thus the evolution of metals helped the course of civilization and it is believed that the skill and knowledge necessary for utilisation of metals into arts and crafts were acquired by the Indian people from pre-historic times.

Antiquity of non-ferrous metals

Most of the metal crafts that have come down to us seem to have been made of copper, brass or bronze. The craftsmen of olden days were not only proficient in the working of precious metals, but they also used their skill and ingenuity even in the production of articles of daily use in brass, copper and other metals. The discovery of the small bronze statuette of a dancing girl at the ancient site of Mohenjo-Daro testifies the antiquity of Indian metal crafts 5000 years ago. The artistry and craftsmanship displayed on this statuette leaves no doubt that there must have been a long anterior period of development of the craft. Besides Mohenjo-Daro and Harppa, the oldest examples of metal sculpture date from the Imperial Guptas. During the reign of the Imperial Guptas in 4th century, Indian metal sculpture received the classical perfection and displayed great artistic merit. The famous Chinese traveller Hiuen Tsang who visited India in 7th century found a stupendous copper image of Lord Buddha about 80 ft. high in Nalanda. The antiquity of use of non-ferrous metals is further testified by the famous statue of Lord Buddha in copper about 7.5 ft. high found at Sultanganj and now in Bermingham Museum and Art gallery.

Myths and Legends associated with the Craft

Although the Mohenjo-Daro doll is made of an alloy like bronze, many other metals were also in use in the ancient times. The Mahabharat, the Ramayan and the Vedas describe the use of costly metal by Prince and Princes such as ring and earing etc. which had miraculous effects to protect from hostile forces to control our thirst, hunger, sleep unrituous activities etc. According to Dr. Anand Coomaraswamy, "Not only was iron worked at an early date (being mentioned with gold, silver, lead and tin in Yajur Veda) but there existed (and

perhaps originated) in India a very early knowledge of the art of preparing steel, the steel of India was known to the Greeks and Persians and very probably to the Egyptians"*.

Rise and Fall in the Growth of the Craft During Different Periods

The craft witnessed its many rise and fall during different ruling dynasties. It received its highest perfection during the Gupta period which is considered as the golden age of Indian art in the Indian history. After the fall of the Gupta empire in the 7th century Harsha of Kanauj followed by Ashoka the great and Kaniska of Kusan dynasty reigned over north India. King Harsha, a poet and dramatist himself patronised arts and encouraged the art of metal statuary and casting. During his reign many large metal figures were cast for temples and palaces of his kingdom.

The Chinese traveller Hiuen Tsang who visited India during this enlightened ruler mentions that he was able to bring back with him about a hundred and fifty pieces of Lord Buddha's bodily relics along with some statues of Buddha made of gold, silver and sandal wood despite losses on the way due to accidents and robbery.

However, at the end of the 10th century the Islamic rulers conquered and captured north India and put an end to the golden age of Indian art*.

It is believed that the metal crafts also developed and flourished in the Deccan plateau at the sametime as in the north. In the Deccan plateau the art achieved its greatest development in the 9th century with the rise of Chola dynasty. With the fall of Chola supremacy sometimes in the 13th century, the Islamic rulers from north entered into the Deccan plateau. During this uncertain period the craft received the royal patronage of Vijayanagar Kingdom and reached the zenith of artistic development in the reign of Krushna Deva Roy. The fall of the mighty Vijayanagar Kingdom paved the way for the Muslim rulers to capture the capital city of Vijayanagar in 1565 A.D. And thus the craft began to perish and so also the artistic genius of the artists began to fritter away lacking the patronisation of the Muslim rulers.

History of Origin and Development of Metal Craft in Orissa

In Orissa, metal crafts reached a high level of perfection during the reign of Ganga Dynasty from 11th century onwards. These kings developed a special penchant not only for construction of magnificent palaces and towering temples but also for patronising figure arts and econometry in metal and stone as well.

Importance of Non-Ferrous Metals

Non-ferrous metals have great importance at all times and their use was extensive and varied.

The non-ferrous metals as well as their alloys exhibit different properties and applications which are beyond the scope of iron and its alloys. The most important property is lightness in weight compared to volume, resistance to corrosion and an extensive range of chemical reactions.

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* 1960 Handicrafts and Industrial Arts of India by Rustam J.Mehta, page-4.

In old days, the importance of non-ferrous metals was highly recognised from various considerations. The properties of these metals were studied in order to determine their effects on human system. Accordingly the metals were used in various forms such as plates, cups, bowls etc. An interesting account available in the Puranic literature* states as follows:

"In a medieval work, the Kalika Purana, plates f gold are described to remove excess of the ıree humours and promote the strength of the ision; those of silver, favourable and inimical to ile, but calculated to increase the secretion of vind and phlegm; those of bronze, agreeable and ntellectual, but favourable to undue excitement of lood and bile; those of brass, wind generating, rritating, hot and heat and phlegm destroying; hose of magnetic iron most beneficial in vercoming anasarca, jaundice and anaemia; those f stones or clay are inauspicious; those of wood wholesome, invigorating and poison destroying".

Versatility of Alloys-Brass and bell-metal

Some of the non-ferrous metals have great commercial importance such as copper, gold etc. The production of a large range of alloys of these metals was intended to meet the specific requirements. Brass and bell-metal are the products of a few out of many metallic combinations. These two metals offer a vast scope of utility. Starting from housewife's outfit to domestic utility they fulfil the choicest decorative accessories.

Names of Important Craft Centres in the State

Although the scope of the study is confined within three centres as discussed in the preceding paragraphs, the bell-metal crafts had owed its origin in different parts of the state. The list of important brass and bell-metal handicraft centres along with their location is given in Appendix-I.

Names of Important Craft centres outside the State

To reiterate, the bell-metal handicraft originated not only in Orissa but also in other states of the country. In these states, the bell-metal handicrafts were as reputed as brass works.

"In Bengal, Brass and Copper are commonly used, but to-day bell-metal, called Kansa in 'Bengal' and 'Phul' in north India has also come in to use. It is an alloy of copper and tin in the proportion of about 7 to 2"**. Brass and bell-metal work is in vogue in many of the districts of Madras State,outstanding among them being the districts of Tanjore, north Arcot, Kanyakumari and Terunelveli***. Besides, the craft was also practised in the neighbouring states of Madhya Pradesh and Andhra Pradesh.

Particulars of Community/Caste/Tribe Associated with the Craft

The community associated with the making of bell-metal wares in Orissa is Kansari. The Kansari is an artisan caste in the socio-cultural

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* Observations of Dr.Rajendra Lala Mitra quoted in Indian Metal work by Jamila Brijbhusan, page-12.

** 1960, Handicrafts and Industrial Arts of India by Rustam J.Mehta.

*** 1967, Brass and Bell-metal ware of NACHIARKOLL, MADRAS, 1961 Census.

hierarchy of Orissa. As metal smiths, they specialise in bell-metal, brass and copper and manufacture different kinds of non-ferrous metal wares.

The particular caste obsessed with the bell-metal handicrafts is Kansari in all the units selected for study. The word "Kansari" literally means a worker in bell-metal. It is true that some Kansari families have already turned a new leaf *because of the considerable decline of the craft in* recent years. In Orissa, the communities practising different non-ferrous metal wares constitute a caste-cluster. The caste/community that practises with the work of bell-metal is known as "Kansari" and that of copper is known as "Tambera". There are also other copper and copper alloy metal craftsmen like the Kharuda (brass bangles) etc.

The Kansari are the higher professional and artisan castes and rank as 'Sudra'. The Brahma-vaivarta Puran locates the Kansyakara as one of the nine sons of Viswakarma, the Devine architect, and are assigned with specific ritual duties (Seva) in the temple of Lord Jaganath such as Tamara Bisoi Seva and Ghantua Seva under the Chhatish Niyoga*.

The craft so far is exclusively practised by the Kansari caste in Orissa. In the past the participation of other caste fellows in the craft was strictly forbidden to maintain the trade secrecy of the craft. However at present, the participation by other caste fellows is allowed. The bulk of the work during the boom season requires the utilisation of labour of the auxiliary work force on the basis of payment of wages. The hammering and shaping entails surplus labour which is usually drawn from the neighbouring non-Kansari caste groups. The craftsmen maintain the craft fidelity, notwithstanding the necessity of drawing auxiliary work force from other sources, by keeping the trade secrets undivulged.

Number or Households Engaged in the Craft in the State

In absence of any comprehensive survey of the bell-metal craft in the state or any academic endeavour in this aspect, it is difficult to obtain the exact number of households engaged in the craft in the state. However, a recent study report published in Arts and Crafts of Orissa revealed that the state has 35,304 artisan families with a production base of one crore rupees per annum. And out of it about 51 per cent** of the families are engaged in Brass and Bell-metal craft. Thus the total number of households engaged in the brass and bell-metal craft in the state, works out to be 18,005. The participation of females and children in the bell-metal craft is very rare and their role is very much insignificant and is limited to the extent of engraving only which involves a little physical labour.

Different Handicraft Objects Produced at Different Centres

The bell-metal wares manufactured in different craft centres are almost the same. From the level of a few domestic equipments, it spread itself in various directions of utilitarian and ritualistic fields. Presently the types and varieties of bell-metal products extensively cover a large

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* The Orissa Gazette (extra ordinary)203 and 207 September 3, 1956 : 52-53 and 42-43.

** Arts and Crafts of Orissa, edited by Basudeb Sahoo, page 39.

number of objects. And each object, in turn, is made in many different sizes and shapes. The more popular category of products include household utensils, temple accessories, etc.

The items of bell-metal wares of utilitarian purposes include plates (Thali) of various types, half plates (Thalia), Cups (Tatia), bowls (Bela), small curry cups (Gina) etc. And among the temple accessories, cymbals (Jhanja), bells and gongs appear prominent. The utilitarian wares are meant for serving food items and the temple accessories as mentioned above are used at the time of worship.

Survey data reveal that each of the craft centres, more or less, manufactures all the items of bell-metal products. However, it is noticed that only one item 'ghanta' a temple accessory, is exclusively manufactured by one household in Pratap Sasan.

Since most of the production units and sales centres do not maintain proper accounts of production, sale, margin of profit, etc, the analysis is based on the data canvassed during the survey.

Coming to the quantity of production, it is ascertained that 500 or less number of different bell-metal items are manufactured by 35 artisan households whereas 501 and more number of different bell-metal items are manufactured by 52 artisan households. In this case the number of artisan households is repeated as per the number of different items of bell-metal products.

It can be further estimated from the survey data that the approximate value of bell-metal products manufactured during the preceding year is Rs.2,606,250.00. This approximate value is derived by estimating the weight of total products manufactured and its present cost.

While the disposal of finished products are concerned, it is seen that the main channels through which the finished products are usually disposed off, constitute either middleman, co-operative societies, or direct to consumers. Among the households, more than 50 per cent disposed off their entire finished products through middlemen. Similarly 14.94 per cent of households disposed off their entire finished products through co-operative societies and only 12.64 per cent directly to consumers. Thus, the middlemen still play a vital role in retrieving the finished products from the artisan community.

The finished products are generally procured on contract basis and the margin of profit in such articles varies between Rs.7.00 to Rs.25.00 in one kilogram of bell-metal wares.

The craftsmen did not express their spontaneous favourable attitude towards the activities of the co-operative societies. But the societies were successful in their strategic role of providing commercialisation of the products besides retrieving the finished products, supplying raw materials, extending loan advances and other services to craftsmen to some extent. It is also ascertained that, though negligible, some portion of the bell-metal products are exported to neighbouring states of West Bengal and Madhya Pradesh.

Different Agencies Associated in the Development of the Craft

It is observed that during pre-independence period the middlemen had monopolised the craft under their control. The Kansari artisans procured

necessary raw materials from them and supplied the finished products as per their specifications. The artisans received the charge for such transformation known as "Karamula". This system was extensive during the period before the establishment of Co-operative Societies. The establishment of Co- operative Societies during the post-independence period created a spirit of new zeal and enthusiasm among the artisan community which were initiated with a strategic aim of providing diversification of its design, addition of immense commercial significance, innovation and guidance and building a reservoir of skilled hands. Thus, the agencies responsible for the development of the craft during post-independence period are Registrar of Co-operative Societies, Orissa Co-operative Handicrafts Corporation and Director of Industries through their District Industries Centres (DIC).

Moreover, creation of a marketing organisation, organisation of training programmes on bell-metal crafts at various places, location of bell- metal training institutes etc. are the significant measures of the Orissa State Government to render services to artisans for deriving economic benefits out of the commercialisation of their craft. The registered headquarters of the Co-operative Societies functioning at different places is at the capital city of Bhubaneswar.

The Orissa Co-operative Handicrafts Corporation was created in 1959 with twin objectives. The first was to procure the products from the artisans and second was to expose them to market channels in different areas through its chain of sales emporia. In addition, the linkage with central cottage industries corporation has been established as a regular marketing channel to expose the products in leading cities of the country.

Despite some amount of success in the field of supply of raw materials to artisan community and retrieval of finished products and safeguarding the interest of the artisans from the exploitation of the middleman, the co-operative agency has yet to exert its influence to motivate the artisans to rejuvenate the craft.

A large number of Co-operative societies associated with the craft are functioning both at rural and urban areas of the state. The list of such societies is given in Annexure-I. On the present context it appears rational to discuss details of Co-operative Societies associated with the bell-metal crafts functioning at the villages selected for study.

Bell-metal Artisans and Co-operative Societies

One of the basic objectives of the co-operative societies is to fulfil certain social objectives and goals with a view to promoting welfare and development of the bell-metal craft. Accordingly, the Co-operative societies were called upon to involve themselves in such socially neglected sectors identified as priority sector of the economy.

The main feature of the bell-metal crafts is that the manufacturing process hardly involves any mechanised application. The artisans attend to the work physically and cater to customers of given tastes and preferences. Their scale of operations mainly hinges upon the availability of raw materials and fuel (Charcoal), the most important item necessary in the manufacturing process.

Though the co-operative movement had set its firm grip on the sound-economic hierarchy of the state, the same in Balakati village has been introduced very recently. Among the six

co-operative societies set up in the village, two namely, Rathijema Brass and Bell-metal utensils co-operative society and Netaji Brass and Bell-metal utensils co-operative society are the oldest and have been liquidated at the time of survey and have ceased to function long since. Of the remaining four, Bhagabati non-ferrous metal industries co-operative society (NFMICS), Balakati was established in 1976 and Balakati NFMICS in 1984 followed by Madanmohan Utensil Co-operative Socieity and Ambika Utensils Industrial Co-operative Society in 1985. And the Co-operative Societies in the villages of Kantilo and Bhatimunda owe their existence since 1953 and onwards.

Kantilo

In Kantilo, there are in all three Co-operative Societies, namely, Nilamadhab Bell-metal and Brass Workers Co-operative Society, Bapuji Utensils Industrial Co-operative Society and Mahabir Brass and Bell-metal Co-operative Society. Nilamadhab Bell-metal and Brass workers Co-operative Society is the oldest in the village which owes its origin since 1955. The other two societies, Bapuji industrial co-operative and Mahabir Brass and Bell-metal co-operative were established in 1962 and 1984 respectively. The co-operative societies have been set up in this census town on behalf of the Registrar of Co-operative Societies, Orissa located in Bhubaneswar.

Nilamadhab Bell-metal and Brass Workers Co-operative Society

The society was organised by the tenacious efforts of Trilochan Pujapanda, a Brahmin by caste and a homoeopathic doctor by profession with the whole hearted help and co-operation of Narasingh Maharana, Kumudananda Maharana, Mohana Maharana, late Dhanurjaya Maharana, Late Narotham Maharana, Late Sapani Maharana and others.

The objectives of setting up of this society were primarily to arrange funds to run the business by procuring raw materials and machinery for sale to its members either in cash or in credit; to procure finished goods through the members and pay wages as per the provisions of the labour act; to arrange sale of the finished products thus obtained; to provide pledge loans to artisan members on hypothecation of stocks; to provide training facilities to members to create creative faculty among members to improve industry in the area and finally to arrange exhibition for sale of finished products.

The provisions of the bye-law explicitly state that control and management of the society is vested with the President and the elected Board of Directors who manage the society with the help of a secretary and a few other staff. The election takes place in every four years wherein the members elect one President and seven Board of Directors.

Coming to the deployment of staff in the society it is seen that the society has one Secretary, one sales man, one accountant, one storekeeper, one peon and one watchman. All the functionaries of the society receive a consolidated remuneration ranging from Rs.800/- to Rs.250/-. The accountant is the highest paid functionary among the staff.

The eligibility criteria laid down in the bye-law state that one must be an artisan to become the member of the society. One must be a Kansari by caste and must have knowledge and experience either in bell-metal or brass or in both the crafts..

Every member must subscribe Rs.50/- for each share.

Besides, other caste fellows who are the sympathisers of the craft or the Kansari community are taken as nominated members in the executive body of Board of Directors. Presently Dr. Trilochan Pujapanda and Satyabadi Misra, ex-MLA of Kantilo are the two nominated members in the executive body.

The society has registered 125 members at present and its area of operation at the initial stage though had extended up to 5 kms radius of Kantilo is now confined within the precincts of the village.

As seen Nilamadhaba Co-operative Society is the most prosperous among the societies in the village. The society functions in its own spacious building. The society has built up one modern guest house recently to accommodate officials visiting the place in connection with the co-operative work.

Besides performing the traditional role of supplying raw materials to the member artisans and retrieval of finished products, the society undertakes certain welfare activities for the benefit of the members.

The society runs a charitable homoeopathic dispensary for the benefit of the artisans and the members of their families and provides financial assistance for prosecution of studies for meritorious students of the artisan community. The society also extends financial aid for philanthropic purposes like marriage etc. The society provides incentive bonus to the artisans every year and distributes dividends to shareholders. These are the welfare activities undertaken by this society for the upliftment of its members. The society also ventured to send two of its members abroad in 1965 to receive training on the application of the latest technology on bell-metal craft.

Mahabir Brass and Bell-metal Co-operative Society

This co-operative society was founded on 28.10.1965 with unbending zeal and cooperation of nine founder members. The society has registered 63 members from among the craftsmen and has employed one Secretary with a consolidated salary of Rs.250/-, one salesman, one storekeeper, one peon and one watchman with consolidated remuneration ranging between Rs.60/- to Rs.150/-per month. The area of operation of the society is confined within the village of Kantilo.

Besides providing raw materials, advance wages to craftsmen that acrues no interest, tools like hammer, blower, files etc. to poor craftsmen to start up the craft were provided. Such aids were received by three craftsmen.

Bapuji Utensils Industrial Co-operative Society

Bapuji Utensils Industrial Co-operative Society came into existence on 29.6.1962 with the unstinted zeal and initiative of seven founder members. The area of operation of the society is confined in Panu Sahu Patna, a hamlet of Kantilo. The society has enrolled 100 members from among the artisan community and has deployed one Secretary, two salesmen, one storekeeper and one watchman to look after the day to day management and sale proceeds of the society under the supervision of the executive body. The society functions in its own spacious building located in the hamlet.

Coming to the nature of services extended to craftsmen, membership criteria, election control and management etc. as spelt out in earlier paragraphs for Co-operative societies are the same and hence needs no reiteration here.

Village Bhatimunda

Bhatimunda bell-metal and Brass Co-operative Society and Jadua non-ferrous metal Industrial Co-operative Society were established in 1953 and 1981 respectively in Bhatimunda village.

The area of Bhatimunda Bell-metal and Brass Co-operative society extends to the neighbouring villages of Jaranga, Govindpur, Rasiknagar, Tangi, etc. The society has enrolled 160 members from among the craft practising households of either bell-metal, brass or aluminium. This society is the oldest in the area and caters to the need of the craftsmen of neighbouring villages besides the craftsmen of the village.

As revealed, the business performance of the society with regard to past years has stepped in to appreciable achievement. The society incurred a profit of Rs.16,832.10 during 1986-87.

In this society there are only one Secretary and one watchman. The Secretary manages the work of the salesman besides his own duties and responsibilities. The Secretary receives a meagre consolidated remuneration of Rs. 250/-per month.

Jadua Non-ferrous Metal Industrial Co-operative Society

The Jadua non-ferrous metal industrial co-operative society owes its existence since 28.5.1985. The area of operation is restricted within the village of Bhatimunda only and has enrolled 50 members only from among the artisans of the village.

The society has incurred a profit of Rs.15,471.65 during 1985-86. There is no existence of any training-cum-production centre relating to bell-metal or brass in the village.

Pratap Sasan (Balakati)

Among the four co-operative societies functioning at Pratap Sasan (Balakati) Bhagabati Non-ferrous Industrial Co-operative Society has enrolled highest number of members (52) followed by Madanmohan Co-operative Society (18), Balakati Co-operative Society (17) and Ambika Co-operative Society (14).

As per the provisions of the bye-law every society elects its President and Board of Directors to manage and control functions of the society with the help of some staff. Besides, the societies receive loans from banks, collect raw materials and distribute among the members of the societies.

Coming to the deployment of staff in all these societies, it is seen that the number of staff in every society in the village is limited to three only; among them one is appointed as Secretary, one as salesman and one watchman. The Secretaries in all these societies work on a consolidated remuneration ranging from Rs.450/- to Rs.600/- per month. The salesmen and watchmen receive a still meagre remuneraton of Rs.450/- to Rs.100/- per month.

These societies own no land of their own except Balakati NFMICS and are housed in rented buildings.

Besides performing the traditional roles of providing raw materials and retrieval of finished products, the societies provide loan assistance in advance to the artisans. Two such beneficiaries are there, who were provided with loans of Rs.5000/-each on behalf of Madanmohan Co-operative Society.

The societies receive the loan from Puri Gramya Bank located in the village. Advance wages are also paid in cash to the craftsmen at the time of their need. The societies receive the raw materials from the State Co-operative Handicraft Corporation which is very much inadequate to meet the demands of the artisans. As a result the societies are constrained to purchase the raw materials from the local market at a higher rate. Moreover, the old and damaged bell-metal utensils are also procured and provided to the artisans.

Training-cum-Production Centres Associated with the Craft

Training-cum-production centres are the vocational training institutions set up to impart training on the application of modern arts on the craft as well as the renovation of the craft to suit the choice of the customers. Brass and Bell-metal Training-cum-Production Centre at Balakati and Brass and Bell-metal Training-cum-Common Service Facilities Centre at Kantilo are associated with the bell-metal and Brass-metal ware craft.

Brass and Bell-metal Training-cum-Production Centre, Balakati

This training-cum-production centre was established in the village on 26.7.1981 by the Orissa State Co-operative Handicrafts Corporation with an objective view of providing training facilities to craftsmen of the neighbouring villages.

The training centre provides practical training through specialists in the trade of moulding, scrapping, welding, engraving and polishing which are the important stages in the process of metal were manufacturing. These are the main sections in which the centre extends training facilities to the trainees. Specially the centre imparts training to two trainees for a period of one year in each trade.

The trainees are recruited on verbal interview on the basis of their ability and interest with the craft. However, the date of interview and procedure of selection are advertised much in advance in the local dailies. The trainees undergo training on certain terms and conditions. During the period of training the trainees receive a stipend of Rs.100/- per month. No stipend is paid on the day of absence. If the performance of the trainee is found unsatisfactory or if the trainee is found irregular in attending training programmes or if the conduct is unsatisfactory, the trainee will be expelled from the institution. The trainees will be abided by the rules and regulations of the training centre which will be enforced from time to time. If the candidate fails to report for the training on or before the date of commencement of the training, other trainees will be taken in his place.

The training-cum-production centre makes provision to accommodate the efficient trainees who have completed their course of training successfully in the training-cum-production centre as artisans with a daily remuneration of rupees twelve. Such number of artisans at present is 11.

The training-cum-production centre has not yet made any tangible progress in rehabilitating the trainees on self employment programme who

have completed training except recommending and issuing certificates for bank loans.

Besides training facilities, the centre is engaged in production of brass wares of Moradabad type.

Brass and Bell-metal Training-cum-Common Service Facilities Centre, Kantilo

The Brass and Bell-metal Training-cum-Common Service Facilities Centre, Kantilo was set up at Kantilo on 1.1.1984 on behalf of Orissa State Co-operative Handicrafts Corporation to extend training as well common service facilities to the local artisan community of Kantilo.

The training centre makes provisions to impart practical training on five important stages involved in the manufacturing process of Brass and Bell-metal products through efficient instructors who have specialised in welding, moulding, scrapping, engraving and polishing. Thirty trainees can be enrolled to receive training on welding, moulding, scrapping, engraving and polishing at a time for a period of one year only. During the training period each trainee receives a stipend of Rs.100/- only. The terms and conditions of training, procedure of selection etc, are the same as discussed in case of training-cum-production centre, Balakati. The training centre extends training facility to the local artisan community only.

At present only eight trainees, three in moulding, two in scrapping and one each in engraving, polishing and welding, are receiving training at the centre on brass ware products only because the training facility on bell-metal products has been withdrawn.

The training centre has yet to undertake any programme to rehabilitate the trainees under any self employment scheme after completion of their training.

CHAPTER II

CRAFTSMEN IN THEIR RURAL SETTING

In India the caste system largely determines the function and the status of an individual. Within the four major castes of Brahmin, Kshyatriya, Vaishya and Sudra there is a complex stratified social structure consisting of thousands of sub-castes.

Occupation often influences the structure of the social class system. The occupations in the rural areas of India are mostly caste specific and hereditary. The craftsmen or the artisans in the rural areas form an integral part of this caste system.

The occupational hierarchy in Orissa abounds in nine categories of Silpi or Craftsmen, namely, Sankhari (Banglemaker), Mali (Florist), Kamar (Blacksmith), Tanti (Weaver), Kumbhar (Potter), Kansari (Brazier), Sutradhar (Carpenter), Swarnakara (Goldsmith) and Chitrakar (Painter). The caste categories of all these craftsmen belong to Sudra Verna and enjoy equal status in the social order in Orissa. The origin of these crafts when analysed and interpreted showed that they have been oriented to the rural society.

The Kansari are the most accomplished artisans in the manufacture of bell-metal wares in Orissa. Manufacture and trade of these wares are their main traditional occupation. In the past, due to lack of roadways, the bulk of the raw materials and finished products of the metal wares were primarily dependent upon water transport. The valley and plains of the Mahanadi with existence of forests in the neighbourhood provided ample scope for the proliferation of bell-metal craft centres. Charcoal, an indispensable fuel for the manufacture of bell-metal wares, was procured in plenty from the forests. The river traffic on the Mahanadi facilitated transport of brass and bell-metal utensils to the western regions of the State. Similarly, Bhuban on the Brahmani and Anandapur on the Baitarani exploited the facilities of river transport. The imports into the Baleshwar port from Calcutta consisted principally of metals like copper, zinc and tin which were used for manufacture of utensils.

Moreover, manufacture of bell-metal wares involves strenuous physical labour under extreme temperature and thus entails cool climatic conditions which the plains and vallies with forestry nearby provide to some extent.

As majority of the Kansari caste earn their livelihood primarily from metal smithy and pedlery of metal wares and perform in workshop all the operations in the traditional way, they fully depend upon peasants, food producers and others for their basic requirements of life. In the process, they selected this rural atmosphere ecologically most adventageous and adopted themselves to the rural environment for the shake of maximum benefit and better co-operative social life.

Moreover, the metal smithy as an occupation which engages almost all the members of the household all the year round was considered a better economic persuit. It requires better co-operation of all the members engaged at different stages of the craft. The auxiliary work force necessary for the craft was cheap and abundant in the rural areas. These are the characteristics perhaps attribute of the rural setting that helped the process of proliferation of bell-metal and other non-ferrous metal craft centres in the rural environments.

There are a number of bell-metal craft centres located in different geographical locations in the state. But the intensive investigation of bell-metal products is confined within three units, namely, Kantilo and Pratap Sasan (Balakati) in Puri district and Bhatimunda in Cuttack district.

General Particulars of Town/Villages Selected for Study

Kantilo

Though Kantilo was treated as 'Census Town', in the 1981 Census it is still rural in character and is an important craft centre. It is on the right bank of the river Mahanadi under the administrative jurisdiction of Khandpara police station. It is situated amidst picturesque surroundings of mountains and rivers. The river Mahanadi flows on the western part of the village and the river Kamai, a tributary of the Mahanadi flows on the south-east of it. In the past, the place was noted as a flourishing centre of trade and commerce. Kantilo has also its historical importance owing to the location of the temple of Nilamadhab. Recently the Government of Orissa declared Kantilo a centre of tourism as a result Kantilo finds a place in the tourism map of Orissa.

This town is linked by all-weather pucca road with Bhubaneswar, the capital city of the state; Cuttack, the commercial city of the state and Khandpara, the police station, tahasil and sub-divisional headquarters. Bhubaneswar, Cuttack and Khandpara are situated at a distance of 91 kms., 120 kms. and 13 kms. respectively. A number of private buses and Government as well ply daily between Kantilo and Cuttack, Bhubaneswar, Puri, Jatni etc. via Khandpara. Buses terminating from Cuttack, Puri and Bhubaneswar ply to Kantilo via Fategarh, Bhapur and Khandpara. The construction of a bridge over the Kamai river recently has established a direct road link between Bhubaneswar and Kantilo in stead of via Fategarh and has reduced about 15 kms. of distance. Besides, a number of tourist buses from the state and outside the state ply to Kantilo throughout the year.

Pratap Sasan (Balakati)

Village Pratap Sasan (Balakati) is substantially a large village and stands on the eastern bank of the Daya river, a distributary of the Kathajuri river and comes under the administrative control of Balianta Police Station in the district of Puri. The village is well known for bell-metal products since 14th century and is only about 10 kms. away from Bhubaneswar, the capital city of the state and is connected by all-weather pucca roads over the Daya with the state capital, district, sub-division and tahasil headquarters. Although Balakati does not act as a centre of termination of bus services,a number of buses to Banamalipur, Bhingarpur, Konark etc. ply through this village. Moreover, the village can be easily approached from Uttarachhak, a place on the Bhubaneswar-Puri State Highway; which is only one kilometer away in the western side of the village. Besides, a number of mini buses, matadors and trekkers engaged in the passanger traffic also operate through the village. The nearest rail head on the south eastern railway is Bhubaneswar railway station which is only about 10 kms. away. The

villagers also avail of the air transport facilities at Bhubaneswar.

Bhatimunda

The village Bhatimunda, noted for bell-metal and Brass ware products stands on the western bank of the river Birupa, a distributary of the Mahanadi. It shares a common boundary with the village Saranga in the east and village Gaon Rawa in the south. It is situated about 6 kms. away in the east of Tangi bus stop on the Calcutta-Madras Highway (National Highway No.5) near Kapilash Road Railway station. The village comes under the administrative jurisdiction of Tangi Police Station of Cuttack district.

The village can be approached either from Kapilash Road station or from Tangi bus stop which are about 6 kms. away from the village. However, the village has been linked with the Calcutta-Madras Highway near Tangi by an all-weather pucca road. From here the village can be approached either by rickshaw, auto-rickshaw, bi-cycle or by foot.

The village is situated about 20 kms. north-east of Cuttack city and Jagatpur, the district headquarters and Tahasil headquarters of the village.

Amenities and Services

The location of certain service functions in a settlement increases its importance and attract people from other settlements to avail of such functions or services. A number of services with their locations are readily available in the form of infrastructural amenities. Among the three places selected, Kantilo is more prosperous. Details of amenities and land use of the three selected units are presented in Annexure - II.

Education

Coming to the educational aspect it is seen that Kantilo abounds in four primary schools, one nursery school, four Middle English schools, two high schools one each for girls and boys and one junior college. Besides, a vocational training centre on bell-metal and brass has been established to provide training facilities to the craftsmen.

The village Pratap Sasan (Balakati) also abounds in adequate number of educational institutions. Presently there are two primary schools, one Middle English school, one girls' high school and one boys' high school and a Junior college. For higher education, people of this village depend upon Bhubaneswar city and Puri town at a distance of about 10 kms. and 50 kms. respectively. A training-cum-production centre on bell-metal and brass in the village provides vocational training facilities to the artisans of the village and the neighbouring villages. The locational efficiency of the educational institutions in the village attracts the students of other villages to a great extent.

In educational aspect, village Bhatimunda lags far behind the other two units Kantilo and Pratap Sasan. The village has got only one primary school, one Middle English school and only one high school. The villagers avail of the higher educational facilities available either at Cuttack or Chandikhol which are at a distance of about 25 kms. and 20 kms., respectively.

Medical Services

The medical facilities available in the selected units show that there is only one Primary Health Centre and one Family Planning Centre at Pratap Sasan to provide health services facilities. This centre caters to the primary health needs of the

villagers but for intensive treatment the villagers depend upon the medical services available either at the state capital or Sri Ram Chandra Bhanj Medical College Hospital, Cuttack. These two places are located at a distance of about 10 kms. and 40 kms. from the village respectively.

However, villagers of Bhatimunda avail of medical facilities from the Primary Health Centre located at Tangi, about 6 kms. away from the village and for further treatment they depend upon Sri Ram Chandra Bhanj Medical College Hospital, Cuttack, which is about 20 kms. away from the village.

In Kantilo, there is an allopathic hospital. The hospital provides outdoor and indoor treatment facilities to the villagers. The hospital is managed and run by the government of Orissa. Besides one charitable homoeopathic dispensary is run by Nilamadhab Brass and Bell-metal workers Co-operative society in the village. The dispensary provides medical services and medicine free of cost.

Post and Telegraph

Village Bhatimunda is poorly placed with reference to the availability of post and telegraphs facility in comparison to Pratap Sasan and Kantilo. There is only one branch post office available in the village Bhatimunda whereas both Balakati and Kantilo have been provided with post and telegraph offices with public telephone call facilities separately.

Market, Hat etc.

The location of weekly markets is essentially based on the local demands and operate on regularly scheduled days of the week in serving the inaccessible parts that are removed from established markets.

Weekly market facilities are available both in Pratap Sasan and Bhatimunda. The weekly market operates on Monday and Thursday in Bhatimunda and on Tuesday and Saturday in Pratap Sasan. But in Kantilo daily market instead of weekly is held both in the morning and evening which sells only vegetables, fish and meat. However, permanent market facilities both in Kantilo and Pratap Sasan are available for articles of daily use.

Drinking Water

Despite the fact that all the selected units are set up on the river banks, Tap water facility is not available in Pratap Sasan and Bhatimunda. The villagers meet their drinking water requirements either from wells or tube-wells. But in Kantilo tap water facility is provided on behalf of the Kantilo Grama Panchayat. The expenses on this head is borne by the Panchayat. Besides, wells, tube-wells facilities are also available in Kantilo.

Electricity

Electricity has gained enormous importance and has been considered an important amenity in the modern society. Coming to this aspect in the units selected for study, it is recorded that in Pratap Sasan electricity connections both for the purposes of domestic, commercial, industrial and agricultural have been provided. But in Bhatimunda only domestic connections have been extended whereas in Kantilo 726 domestic, three industrial and 102 commercial lines have been extended. Road lighting facility has also been extended at Kantilo only and the expenses for this purpose is borne by the Panchayat. The electricity facility for different

purposes has been provided by the Orissa State Electricity Board.

Besides, the provisions of open surface drainage system and disposal of night soil have been made available to the inhabitants of Kantilo for a healthy and prosperous life. Banking facilities in all these units are also available.

It shows that the units selected for the survey abound in all the modern amenities and services.

Demographic particulars

Annexure - III describes urban/village primary census abstract, 1981. The village "Pratap Sasan" the largest among the three has recorded 7,969 population (4,076 males and 3,893 females) who live in 660.85 hectares of area as per the 1981 Census. These persons shelter in 1,271 residential houses and 1,398 households. The people belonging to different 23 types of castes and communities are living together in the village. But the most important among them is the Kansari who are engaged traditionally in the manufacture of brass and bell-metal products.

The village has recorded a sex ratio of 955 females per 1,000 males and a density of 1,206 persons per sq. km. in the 1981 Census. The achievement of literacy among the people is to the extent of 46.73 per cent and economically active population form only 30.48 per cent of the total population of the village. There is no scheduled tribe in the village but the scheduled castes numbering 1,153 constitute 14.47 per cent of the total population of the village as per the 1981 Census.

The very essence of social grouping in the rural society is caste and community grouping. Those 23 castes and communities are Brahmin, Karan, Khandayat, Kansari (Brazier), Teli (Oil man), Gudia (Confectioner), Kachara (Manufacture of glass bangles), Bania (Goldsmith), Gauda (Milkman), Badhei (Carpenter), Thodia, Kumbhar (Pottery Maker), Kamar (Blacksmith), Tanti (Weaver), Barik (Barber), Kandara (S.C.), Bauri (S.C.), Dom (S.C.), Hadi (S.C.), Pan (S.C.), Dhoba (Washerman) (S.C.), Keuta/Dewar (Fisherman - S.C.) and Muslims. Barring Muslims who profess Islam and Urdu as their religion and mother-tongue respectively, the religion of these castes and communities is Hindu and their mother tongue is Oriya.

The total number of households as per the survey is 1,497 in the village. Khandayats are numerically the highest in the village and live in 400 households which constitute 26.72 per cent of the total households of the village, followed by Kansari (15.46 per cent), Teli (11.41 per cent) and Bania (10.27 per cent) in the village. These four communities together claim about 70 per cent of the total households of the village. The rest 19 castes and communities share about 30 per cent of the total households of the village.

The occupational pattern of different castes and communities in the village shows that the Khandayats are engaged in cultivation as their traditional occupation. Similarly, the Kansari are seen to have engaged in the manufacture of brass and bell-metal products traditionally whereas Bania, Badhei, Tanti, Kamar,Kachara, Dom, Kumbhar are engaged in the manufacture of gold and silver ornaments, wooden furniture, weaving, blacksmithy, glass bangles, basketry and pottery respectively in the form of household industry traditionally. Besides, Keuta and Dhoba (Washerman) are engaged in their traditional occupation of fishing and washing of clothes respectively. But the scheduled castes namely-Kandara, Bauri, Hadi, Pan etc. in the village earn their livelihood as daily labourers.

The rest, namely, Teli (Oilman), Gudia (Confectioner) and Karan take up trade and business as their means of livelihood. Brahmins are also seen to have taken up business besides their traditional occupation of worshipping for the maintenance of their lives.

Bhatimunda

The village Bhatimunda is predominated by Kansari, the noted brass and bell-metal craft practising community of the village. The village has recorded 2,273 persons (1,170 males and 1,103 females) in the 1981 Census. The village is spread over an area of 0.63 sq.km. and thus works out a density of 3,608 persons per sq. km. area which is the highest among the three units. Literate and educated persons number 782 and form 34.40 per cent of the total population. The sex ratio is 943. The scheduled castes and scheduled tribes together constitute 10.87 per cent of the total population of the village.

An appraisal of the demographic details on the basis of caste and community structure shows that the population of the village is constituted with 14 different castes and communities. Those are Brahmin, Karan, Kansari, Khandayat, Teli, Pan (S.C.), Kandara (S.C.), Dhoba (S.C.), Gudia, Keuta (Dewar-S.C.), Bania, Barik, Tanti and Kumbhar.

All the villagers are Hindus and Oriya is their mother-tongue. Distribution of households among different caste and community shows that the households of Kansari claim about 60 per cent of the total households of the village. The rest about one-third households in the village belong to the other castes and communities.

Kantilo

Kantilo is noted for its brass and bell-metal products in the entire western region of the state. The composition of population of this unit on the basis of caste and community shows that in addition to 23 different castes and communities except Kumbhar, Dom, Bauri and Badhei as mentioned in Pratap Sasan, eleven castes and communities, namely, Tanla (S.C.), Tiar (S.C.), Gokha (S.C.), Jyotish, Sanei (S.C.), Kuhatia, Panara, Bhina, Sundhi, Marwari community and Alekh Dharma community are recorded to have been residing at Kantilo.

The population of Kantilo is 7,877 as per the 1981 Census and they live in 1,361 occupied residential houses in 6.24 sq.km. area and records a density of 1,262 persons per sq.km. as against 1,206 for Pratap Sasan and 3,608 for Bhatimunda. There are 4,546 literate and educated persons in the village and they constitute 57.71 per cent of the total population which is highest among the three units. The sex ratio of the unit is 947 females per 1,000 males.

The present economic pursuit of the scheduled castes of Kantilo is making of Charcoal from the nearby forests of Khandpara which fetches them a handsome remuneration. Besides, Pan, a scheduled caste community is engaged in the household industry of basket making as their traditional occupation. The Marwari in Kantilo is a business community and deal with grocery articles and Panara, Bhina and Sundhi communities have taken up trade and business as their traditional occupation. Moreover, the occupational pattern as spelt out for different caste and community at Pratap Sasan is almost synonymous and needs no iteration. But the only striking feature, so far as the structure of traditional occupation in Kantilo is concerned it is seen that the manufacture of brass and bell-metal products is no longer confined to the Kansari (Braziers) only but has extended to other caste groups living in the village since last two decades.

As per the 1961 survey of traditional crafts of Orissa in Kantilo, one Teli(Oil man) and one Thodia (business Caste) were in possession of brass workshops and persons of other castes, namely, Kamar, Keuta, Gauda, Gudia, Bhandari, Baishnab, Tanti, Karan and Khandayats were engaged in the craft as unskilled workers. But the technique of the bell-metal craft is yet the monopoly of the Kansaris (Braziers) in Kantilo, Pratap Sasan and Bhatimunda.

Among the different castes and communities residing at Kantilo, households of Kansari constitute the majority and form 25.07 per cent of the total households. Households of other castes and communities to follow in order are Keuta, Teli, Tiar and Thodia.

This apart, the composition of population of Kantilo shows the supremacy of Hindu religion and Oriya mother-tongue over others as there are only seven Muslims having their religion and mother tongue as Islam and Urdu respectively.

Besides, three males of the village Kantilo have been professing Alekh Dharma, a persuasion of Hindu religion and their mother tongue is Oriya. Similarly, there are only 10 Marwaris having Hindu and Hindi as their religion and mother-tongue respectively.

Particulars of Craftsmen engaged in the Craft

The Kansari is an artisan in the socio-cultural hierarchy of Orissa state and have specialised in the manufacture of brass and bell-metal wares of numerous shapes and designs. At present, the Kansari and the Thatari are almost synonymous terms. Tambera (coppersmiths) and Kansari are inter-marrying groups. The Kansari in Sanskrit version is Kansyakara which literally means a worker in bell-metal as Kansya in Sanskrit means bell-metal and Kara - a worker. Similarly, Thatari in Sanskrit parlance means Tashta-kara (one who polishes) and Tambera as Tamra-kara (Coppersmith). Thus, the Kansari, the Thatari and the Tambera constitute a community cluster because of the same occupational adoption.

Despite existence of numerous appellations in the Pan-Indian context, the earlier references reveal that Kansaris are one of the higher professional and artisan "sometimes wearing the sacred thread" (Russel and Hiralal (1916), 1975:IX 48) and rank as a 'respectable Surda Caste'/'Puri Sudra Caste' (Hunter 1877), 1976:XIX:37 and XVIII:73).

"In Orissa they are Jala-achala Sprushya Shudra and one of the Chhatisha Pataka (36 service caste series), especially the Chhatisha Pataka being a referent category under the Shudra order in coastal Orissa (Praharaj, 1934,4723). Quoting the Padma Purana, Mishra accounts for two kinds of Kansarah — one coming under the Kshatriya Varna and other under Shudra (1955, 432-34). This is in short the social standing of the Kansari in the hierarchy of social order.

This apart, the social customs, beliefs, restrictions and practices associated with the community there is no sub-caste under Kansari community. The marriages solemnised at bride's house and negotiated either by parents or guardians are considered prestigious. The Kansari community has emulated the Brahminical Gotras which are strictly exogamous and in the southern part of the state where cross cousin marriage is prevalent, the Gotra as well as Vansa occur simultanously. The Kansari family is patrilocal and monogamous. Divorce is strictly forbidden. Their kinship is patrilineal. Succession is hereditary and inheritance is patrilineal.

The kinsmen constitute the unit known as Ghiakhia-Kutumba and above this they recognise another functional unit called the 'Thana-Bhai' group. The Ghiakhia-Kutumba group is stable and permanent but the "Thana Bhai" unit is reconstituted and re-organised from time to time. Besides, the Kansari has community councils known as 'Thana Sabha', 'Anchala Samiti' with definite territorial jurisdiction and area of operations headed by the Mohapatra/Moharana, Thanapati and the President, Vice-President, Secretary and other functionaries to look into the external and internal affairs of the community. Above the territorial units, they have a state wide forum called the 'Sahe Thana Mahasabha' (100 region congress) in 1950 and the 'Nikhilotkala Kansari Samaj' in 1977. The forum aims at the upliftment of the craftsmen both economically and socially.

The persons of Kansari community believe in the Chaturbarga doctrine the Dharma, Artha, Kama and Moksha. They worship Vishnu, Shiva and a number of Hindu deities. They worship Kali, the deity of Shakti or power as their presiding deity on the occasion of Dasahara festival. The Brahman acts primarily as their preceptor and the priest.

In good old days the bell-metal craft was the main stay of the braziers in the state of Orissa and earned them a better economic life in the society. But the subsequent periods of history have witnessed a steady fall of flow of raw materials into the hands of the craftsmen which virtually kept them un-employed and ultimately they move for either on other metal crafts or on other occupations. In the three units selected for study of bell-metal products, village Bhatimunda has 255 Kansari households whereas there are 271 and 357 Kansari households in Pratap Sasan and Kantilo respectively. Of these households at present, only 13 households in Bhatimunda, 119 in Pratap Sasan and 116 in Kantilo are engaged in the manufacture of bell-metal products.

It is further ascertained that out of the total 883 Kansari houscholds, 53 are selected for the survey of which 20 each are from Kantilo and Pratap Sasan and 13 from Bhatimunda. In these 53 households there are 366 persons of which 95 males are enlisted as workers practising the bell-metal craft. Of these workers 36 belong to Kantilo, 41 to Pratap Sasan and 18 to Bhatimunda. Details of distribution of households and population are presented in the table II.1.

Table II.1

Distribution of Households and Population of Kansari Community Classified by Craft practice of Head of Households, 1987

Sl.No.	Name of Selected bell-metal Craft Centres	Total		Total number of households in the unit			
				Number practising the craft		Number not practising the craft	
		House-Hold	Popu-lation	Household	Population	Household	Population
1	2	3	4	5	6	7	8
1.	Bhatimunda	255	1,341	13	68	242	1,273
2.	Pratapsasan (Balakati)	271	1,544	119	678	152	866
3.	Kantilo	357	1,974	116	641	241	1,333
	Total	883	4,859	248	1,387	635	3,472

Table II.1 Concld.

Sl.No.	Name of selected bell-metal Craft Centres	Number of Selected households				Number of Craft Practi-sing Persons (All Males)
		Practising the Craft		Not Practising the Craft		
		Household	Population	Household	Population	
1	2	9	10	11	12	13
1.	Bhatimunda	13	75	5	32	18
2.	Pratapsasan(Balakati)	20	133	5	27	41
3.	Kantilo	20	158	5	34	36
	Total	53	366	15	93	95

A look at the manner of distribution of houses of the craftsmen in the general settlement pattern shows the concentration of Kansari households in a particular land area, either in the middle of the general settlement pattern or in either side of the general settlement pattern or in a significant land area comprising their habitation.

The distribution pattern of houses in Pratap Sasan shows that the preponderance of almost all the Kansari households in Rathijema, a hamlet of Pratap Sasan. Similarly, maximum proliferation of Kansari households are seen in Kansari Sahi Patna, Madhab Chaudhuri Patna, Panu Sahu Patna, Krushna Chandrapur Patna and Kunja Bihari Patna in Kantilo. These are the continuous cluster of habitations named after the leading personalities of the respective habitations. Kansari Sahi Patna and Madhab Chaudhuri Patna are located at the centre of Kantilo and Krushna Chandrapur Patna, Panusahu Patna and Kunja Bihari Patna form a different cluster of habitation and lie in the south of the main habitations of Kantilo. Similarly, the concentration of Kansari households is also seen in Patna Sahi and Teli Sahi of Bhatimunda village.

The pattern of distribution of houses is linear and lie on either side of the road. There is no distinct housing pattern in the general settlement pattern except the difference in economic status reflected merely in size and material of constructions.

General Economic Condition of Craftsmen

Generally the material possessions are considered as an indicator of economic prosperity, the Kansari as an artisan enjoyed a better economic status in the society. As seen majority of the Kansari households live in pucca houses both in Pratap Sasan and Kantilo and a few in Bhatimunda. Besides, a good number of households possess scooters, motor cyeles mopeds, television, radio and luxury articles in all the three units selected for study. In the past bell-metal was perhaps the most lucrative among the crafts in the rural sector and acrued the craftsmen a substantial income, the surplus of which was utilised to accumulate the tangible material objects. Although the craft has registered a slump during the years, the craftsmen who still hinge on it still enjoy a better economic status in the society.

The information elicited from among the households presently practising the craft under study reveals that they are Shudra in the society of Hindu community. The 'Vaishya' enjoys a higher social status than the Shudra in the hierarchy of four main structures of Hindus.

Demographic Profile of the Population engaged in the Craft under Study

The demographic analysis is based on the aggregate data of the three units instead of individual unit to avoid repetition of facts.

The total population of these units is 366 of which 196 are males and 170 are females and they live in 53 households. This brings out a sex ratio of 867 females per 1,000 males and a household index of seven persons per household. Table II.2 shows the distribution of population under survey in different age groups with sex break up.

Table II.2

Distribution of population under survey in different age groups

Age groups	Persons in each age group			Percentage of population to total population
	Persons	Males	Females	
1	2	3	4	5
0 - 4	37	13	24	10.11
5 - 9	49	30	19	13.39
10 - 14	48	29	19	13.11
15 - 19	39	18	21	10.66
20 - 24	28	19	9	7.65
25 - 29	27	15	12	7.38
30 - 34	20	7	13	5.46
35 - 44	40	22	18	10.93
45 - 54	29	10	19	7.92
55 - 69	36	25	11	9.84
70 +	13	8	5	3.55
Total	366	196	170	100.00

The distribution of population in different age groups reveals that about one third (36.61 per cent) of the population are recorded under 0-14 age group. The age group 15-54 which may be considered as the most potential working age group claims half (50.00 per cent) of the total population. The age groups 55-69 and 70+ registered 9.84 and 3.55 per cent respectively.

Marital Status

The distribution of population under different marital status shows that the persons under never married category are 194 or 53.00 per cent of the total population and that of married persons are 158 or 43.17 per cent. The divorced and separated and widowed categories claim a negligible proportion of only 0.82 per cent and 3.01 per cent respectively.

However, in striking contrast to the practice in rural areas, the advancement of marriageable age among the females is witnessed among the Kansari community. Though marriages among the rural females usually take place between 15-19 years, 21 females are recorded under the never married category. Details of distribution of population classified by age, sex and marital status may be seen from table II.3 and Appendix 2.

Table II.3

Distribution of Population by Age, Sex and Marital status - survey year, 1987

Age group	Never married			Married		
	P	M	F	P	M	F
1	2	3	4	5	6	7
0 - 4	37	13	24	-	-	-
5 - 9	49	30	19	-	-	-
10 - 14	48	29	19	-	-	-
15 - 19	37	18	19	2	-	2
20 - 24	14	14	-	12	4	8
25 - 29	7	7	-	20	8	12
30 - 34	-	-	-	19	7	12
35 - 44	1	1	-	38	21	17
45 - 54	1	-	1	27	10	17
55 - 69	-	-	-	32	23	9
70 +	-	-	-	8	6	2
Total	194	112	82	158	79	79

Table II.3 Concld.

Divorced or Separated			Widowed			Total Population		
P	M	F	P	M	F	P	M	F
8	9	10	11	12	13	14	15	16
-	-	-	-	-	-	37	13	24
-	-	-	-	-	-	49	30	19
-	-	-	-	-	-	48	29	19
-	-	-	-	-	-	39	18	21
1	1	-	1	-	1	28	19	19
-	-	-	-	-	-	27	15	12
1	-	1	-	-	-	20	7	13
1	-	1	-	-	-	40	22	18
-	-	-	1	-	1	29	10	19
-	-	-	4	2	2	36	25	11
-	-	-	5	2	3	13	8	5
3	1	2	11	4	7	366	196	170

Table II.3 further reveals that out of 158 married persons 79 each are males and females. All of them except two females are above 20 years old. Only two females are in the age group of 15-19 years. It is noticed that although there is strict restriction for divorce in Kansari community, three persons (one male and two females) are reported living separately from spouses due to some unavoidable circumstances. Moreover, only 10 widowed persons of which four are males and six are females are recorded in the age of 45 years and above. Only one unfortunate woman at the age of 20 to 24 is recorded as widow.

Education

Analysis of literacy among the persons of Kansari community , reveals that the literate and educated persons are 263 or 71.86 per cent of the total population of 366 under survey. Persons under literate without educational levels and primary or junior basic together claim 193 or 73.38 per cent and the middle standard claims 53 or 20.15 per cent of the total literates. Thus, the persons under these three educational levels claim 93.53 per cent of the total literates. There are only 13 males and four females recorded under higher educational standards of which only two males are graduate.

Reasons for achievement of lower educational standard among the persons may be ascribed to the fact that the manufacture of bell-metal wares basically involves strenuous physical labour, skill and experience and does not require higher education. So, the persons after attaining formal education are engaged in the craft.

The literacy among males and females reveals that the male and female literate and educated persons constitute 84.18 per cent and 57.65 per cent respectively. Details of distribution of population classified by age, sex and educational level may be seen from table II.4 and Appendix 2.

Table II.4

Distribution of Population by Age, Sex, and Educational Level, 1987 Survey

Age group	Total Population			Illiterate		Literate withought Educational Level		Educational Level Primary or Junior basic	
	P	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9	10
All ages	366	196	170	31	72	47	25	69	52
0 - 4	37	13	24	13	24	-	-	-	-
5 - 9	49	30	19	9	4	17	12	4	3
10 - 14	48	29	19	1	1	1	2	21	11
15 - 19	39	18	21	-	3	2	1	6	7
20 - 24	28	19	9	1	1	1	2	6	4
25 - 34	47	22	25	1	5	2	2	4	15
35 +	118	65	53	6	34	24	6	28	12

Table II.4 Concld.

Age-group	Educational Level: Middle		Matriculation or Higher Secondary		Non-Tech. diploma or Certificate not equal to degree		Tech-diploma or Certificate not equal to degree		Graduate and above	
	M	F	M	F	M	F	M	F	M	F
1	11	12	13	14	15	16	17	18	19	20
All ages	36	17	9	4	1	-	1	-	2	-
0 - 4	-	-	-	-	-	-	-	-	-	-
5 - 9	-	-	-	-	-	-	-	-	-	-
10 - 14	6	5	-	-	-	-	-	-	-	-
15 - 19	7	6	3	4	-	-	-	-	-	-
20 - 24	4	2	4	-	1	-	1	-	1	-
25 - 34	12	3	2	-	-	-	-	-	1	-
35 +	7	1	-	-	-	-	-	-	-	-

Composition of households by nature of relation

An appraisal of the composition of families by nature of relations indicates the dominance of nuclear families and lineal joint families. Of the total 53 sample households, 24 (45.28 per cent) are nuclear families (A couple with or without unmarried children) and 11 (20.75 per cent) are lineal joint families. This apart, there are four households in which the heads live with their wives and widowed mothers with or without children and only one single member household. Details of the composition of households by members are presented in table II.5 and Appendix 4.

Table II.5

Distribution of households classified by nature of relation of members to head of households and number of members, 1987 survey

	Nature of relation of members to head of the households	Number of households	Number of members
	1	2	3
1.	Self	1	1
2.	Self, Spouse	-	-
3.	Self, Spouse, Unmarried Sons and Daughters	24	117
4.	Self, Spouse, married sons and Son's wife with or without unmarried Sons and Daughters	11	88
5.	Self, Spouse, married Brother, Brother's wife with or without un-married Sons and Daughters	1	13
6.	Self, Spouse, married Brother, Brother's wife, Married Son, Son's wife with/without unmarried Sons/Daughters.	-	-
7.	Self (male), Un-married Son/Daughter	-	-
8.	Self (Female), Un-married Son/Daughter	-	-
9.	Self, Spouse with or without un-married Son/Daughter and widowed Father	-	-
10.	Self, Spouse, with or without un-married Son/Daughter and widowed Mother	4	24
11.	Self (male), Un-married Brother/Sister	-	
	Others:		
12.	i) Self, Spouse, Son, Daughter and Father's Brother's wife	1	8
	ii) Self, Spouse, Unmarried Sons and Daughters, married brother, Brother's wife, Un-married Son, Daughter, Father, Mother, Un-married Brother/Sister	2	27
	iii) Self, Spouse, Father, Mother, Married Brother, Un-married sister.	3	47
	iv) Self (male), Son's wife, Son's Un-married Son/Daughter	1	5
	v) Self (male), married Son, Son's wife, Son's Un-married Son/Daughter	1	7

Table II.5 Concld.

Nature of relation of members to head of the households		Number of households	Number of members
	1	2	3
vi)	Self, Spouse, Un-married Son/Daughter with Brother's wife	1	5
vii)	Self widow (male) with married Son, Son's wife, Son's un-married Son/Daughter and Separated Daughter	1	6
viii)	Self, Spouse, Father, Mother, widow Brother's wife, un-married Sister and un-married Son and Daughter	1	11
ix)	Self, Spouse, Un-married Son,Daughter,Brothers and widowed Father	1	7
	Total	53	366

Migration Status of Households

Among the 53 sample households, 52 are non-migrants and only one is migrant household. This household migrated from the rural areas of Puri district and settled up at Kantilo 21 years before.

Diversity of Occupation

The interdependence of individuals on traditional household occupation has reduced considerably in the rural areas. The pattern of avocations indicates that the sons and brothers of the heads have taken up diverse economic pursuits than their head of households.

However, this hypotheses does not hold good in bell-metal craft. Because, out of 53 households, 48 reported to have no diverse occupation at all. And only five households reported to have diverse occupations of cycle repairing, grocery business, brass handicraft labourer, trade on Aluminium and transport by trolley rickshaws instead of their traditional occupation of manufacture of bell-metal wares.

Workers and non-workers

The composition of population on the basis of workers and non-workers depicts that there are in all 101 workers and they are all males. The workers constitute 27.60 per cent of the total population of 366. The rest 265 are non-workers of which 95 are males and 170 are females.

The extent of literacy among workers reveals that there are only five illiterate workers and among the literate and educated workers 46 (45.55 per cent) have passed primary or junior basic, 22 achieved middle standard and 26 (25.74 per cent) are simple literates. Workers with higher academic achievement number two only.

Demographic profile of the craftsmen not practising the craft now

The discussion on demographic profile of the craftsmen exclusively relates to the population of those households who had previously practised the craft under study and had given up the occupation at the time of survey. The information based on

such households was collected through Household Schedule 'D' which abounds in information of 15 sample households, five each in the villages of Pratap Sasan, Bhatimunda and Kantilo.

The total population of these households is 93 which comprise 50 males and 43 females. They all belong to Kansari caste and profess Hindu as their religion and are the original settlers of the respective selected units.

Coming to the demographic details of the population it is seen that the sex ratio of the population is 860 females per 1,000 males as against 867 recorded for the households presently practising the craft of bell-metal.

Distribution of population under different age groups shows that the maximum proportion of 15.05 per cent is claimed by each of the age groups 5-9 and 10-14. And about one-third of the population are recorded under 0-14 age group. The age group 70+ claims only 5.38 per cent of the total population.

The age groups that accommodate majority of the economically active population are 25-29 and 35-44 and each of the age groups claims 10.75 per cent of the total population. Details of distribution of population under different age groups are presented in table II.6.

Table II.6

Distribution of population under different age groups

Age groups	Persons	Percentage to total population
1	2	3
0 - 4	5	5.38
5 - 9	14	15.06
10 - 14	14	15.05
15 - 19	9	9.68
20 - 24	6	6.45
25 - 29	10	10.75
30 - 34	4	4.30
35 - 44	10	10.75
45 - 54	6	6.45
55 - 69	10	10.75
70+	5	5.38
Total	93	100.00

Table II.6 Concld.

Marital Status

Classification of population on different marital categories as visualised from table II.7 which details the distribution of population on age, sex and marital status is that the never married category claims more than half of the population (52.69 per cent) followed by ever married category with 43.01 per cent. There are only four persons recorded under widowed category and they constitute 4.30 per cent of the total population.

Education

Table II.8 provides classification of population by age, sex and educational levels. Among the literate and educated persons, there are 45 males and 26 females and they together constitute 76.34 per cent of the total population. Though the degree of literacy among the population is considerably high, the extent of their educational achievement is middle standard, there are only five matriculates, one non-technical diploma holder and two male graduates.

Table II.7

Distribution of population classified by Age, Sex and Marital Status

Age group	Never Married			Married			Widowed			Total Population		
	P	M	F	P	M	F	P	M	F	P	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13
Consolidated												
0 - 4	5	2	3	-	-	-	-	-	-	5	2	3
5 - 9	14	7	7	-	-	-	-	-	-	14	7	7
10 - 14	14	10	4	-	-	-	-	-	-	14	10	4
15 - 19	8	3	5	1	-	1	-	-	-	9	3	6
20 - 24	4	2	2	2	1	1	-	-	-	6	3	3
25 - 29	4	3	1	6	2	4	-	-	-	10	5	5
30 - 34	-	-	-	4	1	3	-	-		4	1	3
35 - 44	-	-	-	10	6	4	-	-	-	10	6	4
45 - 54	-	-	-	5	3	2	1	1	-	6	4	2
55 - 69	-	-	-	8	5	3	2	1	1	10	6	4
70 +	-	-	-	4	2	2	1	1	-	5	3	2
Total	49	27	22	40	20	20	4	3	1	93	50	43
Village-Bhatimunda												
0 - 4	3	1	2	-	-	-	-	-	-	3	1	2
5 - 9	4	2	2	-	-	-	-	-	-	4	2	2
10 - 14	2	2	-	-	-	-	-	-	-	2	2	-
15 - 19	2	2	-	1	-	1	-	-	-	3	2	1
20 - 24	3	2	1	2	1	1	-	-	-	5	3	2
25 - 29	1	1	-	3	2	1	-	-	-	4	3	1
30 - 34	-	-	-	1	-	1	-	-	-	1	-	1
35 - 44	-	-	-	2	1	1	-	-	-	2	1	1
45 - 54	-	-	-	3	1	2	-	-	-	3	1	2
55 - 69	-	-	-	4	3	1	1	1	-	5	4	1
70 +	-	-	-	-	-	-	-	-	-	-	-	-
Total	15	10	5	16	8	8	1	1	-	32	19	13

Table II.7 Concld.

Age group	Never Married			Married			Widowed			Total Population		
	P	M	F	P	M	F	P	M	F	P	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13
Village-Balakati												
0 - 4	1	-	1	-	-	-	-	-	-	1	-	1
5 - 9	3	2	1	-	-	-	-	-	-	3	2	1
10 - 14	7	3	4	-	-	-	-	-	-	7	3	4
15 - 19	2	-	2	-	-	-	-	-	-	2	-	2
20 - 24	-	-	-	-	-	-	-	-	-	-	-	-
25 - 29	1	1	-	1	-	1	-	-	-	2	1	1
30 - 34	-	-	-	2	-	2	-	-	-	2	-	2
35 - 44	-	-	-	4	3	1	-	-	-	4	3	1
45 - 54	-	-	-	1	1	-	1	1	-	2	2	-
55 - 69	-	-	-	2	1	1	-	-	-	2	1	1
70 +	-	-	-	2	1	1	-	-	-	2	1	1
Total	14	6	8	12	6	6	1	1	-	27	13	14
Village-Kantilo												
0 - 4	1	1	-	-	-	-	-	-	-	1	1	-
5 - 9	7	3	4	-	-	-	-	-	-	7	3	4
10 - 14	5	5	-	-	-	-	-	-	-	5	5	-
15 - 19	4	1	3	-	-	-	-	-	-	4	1	3
20 - 24	1	-	1	-	-	-	-	-	-	1	-	1
25 - 29	2	1	1	2	-	2	-	-	-	4	1	3
30 - 34	-	-	-	1	1	-	-	-	-	1	1	-
35 - 44	-	-	-	4	2	2	-	-	-	4	2	2
45 - 54	-	-	-	1	1	-	-	-	-	1	1	-
55 - 69	-	-	-	2	1	1	1	-	1	3	1	2
70 +	-	-	-	2	1	1	1	1	-	3	2	1
Total	20	11	9	12	6	6	2	1	1	34	18	16

Table

Distribution of Population classified by

Educational

Age-group	Total Population			Illiterate		Literate without Educational level		Primary or Junior basic	
	P	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9	10
				Consolidated					
All ages	93	50	43	5	17	9	6	20	11
0 - 4	5	2	3	2	3	-	-	-	-
5 - 9	14	7	7	2	2	3	4	2	1
10 - 14	14	10	4	-	-	-	-	8	3
15 - 19	9	3	6	-	1	-	-	1	3
20 - 24	6	3	3	-	1	-	-	2	-
25 - 34	14	6	8	-	2	-	-	1	3
35 +	31	19	12	1	8	6	2	6	1
				Village-Bhatimunda					
All ages	32	19	13	3	8	3	2	7	1
0 - 4	3	1	2	1	2	-	-	-	-
5 - 9	4	2	2	1	1	1	1	-	-
10 - 14	2	2	-	-	-	-	-	2	-
15 - 19	3	2	1	-	1	-	-	1	-
20 - 24	5	3	2	-	1	-	-	2	-
25 - 34	5	3	2	-	1	-	-	1	-
35 +	10	6	4	1	2	2	1	1	1

II.8

Age, Sex and Educational Level

Level										
Middle		Matriculation or Higher Secondary		Non-Technical Diploma or Certificate not equal to degree		Technical diploma or Certificate not equal to degree		Graduate and above	
M	F	M	F	M	F	M	F	M	F
11	12	13	14	15	16	17	18	19	20
Consolidated									
11	6	2	3	1	-	-	-	2	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
2	1	-	-	-	-	-	-	-	-
2	2	-	-	-	-	-	-	-	-
1	1	-	1	-	-	-	-	-	-
4	2	1	1	-	-	-	-	-	-
2	-	1	1	1	-	-	-	2	-
Village-Bhatimunda									
4	2	2	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-
1	1	-	-	-	-	-	-	-	-
1	1	1	-	-	-	-	-	-	-
1	-	1	-	-	-	-	-	-	-

Table

Distribution of population classified by

Age-group	Total Population			Illiterate		Literate without Educational level		Educational Primary or Junior basic	
	P	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9	10
				Village - Pratap Sasan					
All ages	27	13	14	1	5	3	1	6	6
0 - 4	1	-	1	-	1	-	-	-	-
5 - 9	3	2	1	1	-	-	1	1	-
10 - 14	7	3	4	-	-	-	-	3	3
15 - 19	2	-	2	-	-	-	-	-	2
20 - 24	-	-	-	-	-	-	-	-	-
25 - 34	4	1	3	-	1	-	-	-	1
35 +	10	7	3	-	3	3	-	2	-
				Village-Kantilo					
All ages	34	18	16	1	4	3	3	7	4
0 - 4	1	1	-	1	-	-	-	-	-
5 - 9	7	3	4	-	1	2	2	1	1
10 - 14	5	5	-	-	-	-	-	3	-
15 - 19	4	1	3	-	-	-	-	-	1
20 - 24	1	-	1	-	-	-	-	-	-
25 - 34	5	2	3	-	-	-	-	-	2
35 +	11	6	5	-	3	1	1	3	-

II.8

Age, sex and Educational level

Level									
Middle		Matriculation or Higher Secondary		Non-Technical Diploma or Certificate not equal to degree		Technical diploma or Certificate not equal to degree		Graduate and above	
M	F	M	F	M	F	M	F	M	F
11	12	13	14	15	16	17	18	19	20
				Village-Pratap Sasan					
1	1	-	1	1	-	-	-	1	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	1	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
1	-	-	1	-	-	-	-	-	-
-	-	-	-	1	-	-	-	1	-
				Village-Kantilo					
6	3	-	2	-	-	-	-	1	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	--	-	-	-	-
1	2	-	-	-	-	-	-	-	-
-	-	-	1	-	-	-	-	-	-
2	1	-	-	-	-	-	-	-	-
1	-	-	1	-	-	-	-	1	-

Composition of Households

The composition of households by nature of relation of the 15 households reveals that the nuclear families number five and they constitute about 33.33 per cent of the total households followed by two lineal joint families that form about 13.33 per cent. Details of the composition of households by nature of relations are presented in table II.9.

Table II.9

Distribution of households classified by nature of relation of members to head of the household and number of members

Nature of relation of members to head of the household	No.of household	No.of members
1	2	3
Consolidated		
Self, Spouse, unmarried sons and daughters	5	26
Self,Spouse, Married Son and Son's 'wife with or without unmarried Sons and Daughters	2	12
Self, Spouse, Married Brother, Brother's wife with or without unmarried, Son's and Daughters	1	13
Self (Male), unmarried Son/Daughter	1	5
Self, Spouse, with or without unmarried Son/Daughter and Widowed Father	1	6
Others:		
i) Self, Spouse, Married Son, Son's wife with unmarried Son/Daughter and with/without Son's unmarried Son/Daughter	1	8
ii) Self, Spouse, with/without unmarried Son/Daughter, widowed Mother and unmarried Sister	1	8
iii) Self(Male), Married Son, Son's wife, Son's unmarried Son/Daughter	1	4
iv) Self, unmarried Brother, Sister, Father and Mother	1	5
v) Self, Spouse, unmarried Son/Daughter, Father and Mother	1	6
Total	15	93
Bhatimunda		
Self, Spouse, unmarried Son's and Daughters	1	4
Self, Spouse, Married Brother, Brother's wife with or without Unmarried Sons and Daughters	1	13
Others		
i) Self(Male), Married Son, Son's wife, Son's Unmarried Daughter	1	4
ii) Self, Unmarried Brother, Sister, Father and Mother	1	5
iii) Self, Spouse, Unmarried Son, Daughter, Father and Mother	1	6
Total	5	32

Table II.9 Concld.

Nature of relation of members to head of the household	No. of household	No. of members
1	2	3
Pratap Sasan		
Self, Spouse, Unmarried Sons and Daughters	2	10
Self, Spouse, Married Son and Son's wife with or without unmarried Sons and Daughters	1	4
Self (Male), unmarried Son/Daughter	1	5
Others:		
Sef, Spouse, Married Son, Son's wife, with unmarried Son, Son's unmarried Son and Daughter	1	8
Total	5	27
Kantilo		
Self, Spouse, unmarried Sons and Daughters	2	12
Self, Spouse, Married Son and Son's wife with or without unmarried Sons and Daughters	1	8
Self,Spouse with or without unmarried Son/Daughter and widowed Father	1	6
Others:		
Self, Spouse, with/without unmarried Son/Daughter, widowed Mother and unmarried Sister	1	8
Total	5	34

Workers and Non-workers

Among the total population of 93, there are 23 workers who are all males and 70 are non-workers. The workers account for 24.73 per cent of the total population. Of these workers 10 each belong to 15-34 and 35-59 broad age groups and only three to 60+ age group.

The distribution of these workers in their present economic avocations depicts that six persons are engaged either in stationery, grocery or brass or bell-metal product business and they are all 15-34 years of age. Of the rest four of this age group, one each is engaged in brass work, in government service, tailoring and radio repairing.

The next broad age group 35-59 also accommodates 10 persons of which two are artists, two each are dealing in brass metal products and brass, aluminium and bell-metal products. Two are engaged in cycle repairing and one each is in government service and cycle repairing.

Similarly, of the three persons under 60+ age group, two are brass handicraft workers and one is a cycle mechanic.

The traditional occupation of these workers was manufacture of bell-metal wares.

The reasons of such shift from the traditional occupation of bell-metal were ascribed to the non-

availability of raw materials and absorption in government services and taking up other profitable business.

History of origin and development of the craft in Balakati

While unfolding the history of origin and growth of the craft in the village Pratap Sasan (Balakati), it is believed that the craft owes its existence since 1400 AD. The evidences of the existence of the craft in the village are conspicuous. If not an archeological venture, excavation of tube-wells to the extent of 39 ft. from the ground level had shown the samples of burnt charcoals used as a fuel to manufacture the metal wares proving beyond doubt the remote antiquity of the craft in the village. Even if the craft is believed to be existed before 1,400 years or so, details of its history can be traced since 1887 in the village.

In 1887 about 100 braziers were engaged in this craft in the village. And every artisan was capable of processing about 2 to 2 1/2 seers of bell-metal and about 5 to 6 seers of brass. A few middlemen operated in the village who provided the raw materials to the artisans and procured the finished products in payment of wages. During this period the craft was fully patronised by a few wealthy middlemen of the locality. The involvement of braziers or the Kansaris, the craft practising community of the village in the whole process was simply to manufacture bell-metal products. These products were either sold in the local areas or were exported to Calcutta City of West Bengal for sell. The charge for processing 40 seers of bell-metal alloys to bell-metal products was only five rupees.

In 1905-13, the demand for beli-metal products was excessively felt in West Bengal, Assam, Bihar and Orissa which resulted in the proliferation of manufacturing centres as well as the number of artisans in the neighbouring areas of Bhainchua, Hirapur, Bodhi, Balipatna, Chandanpur, Bheluri etc. The bell-metal products created a passion among the people of these states to have in possession of these articles as because it was considered first among the movable properties. But the apprehension of the out break of the first world war and sudden price hike of the raw materials brought out a slump in the craft from 1914 to 1919. The flow of raw materials from London metal market to India was restricted. So the bell-metal craft that flourished since, doomed to fade away to a great extent during this period leaving aside a large number of craftsmen unemployed. But the bumper crops of jute and paddy in 1921 strengthened the economic condition of the people and the demand on bell-metal products began to rise again and the craft flourished again till 1929. During this period the craft was in the highest development. About 500 craftsmen earned their livelihood and about 20 middlemen operated in the area. After 1929, the craft deteriorated vastly due to demand of the artisans for higher wages, increase in the price of raw materials which was beyond manageable on the part of the middlemen and from 1929 to 1934, the craft witnessed steady fall. But the introduction of Co-operative Society in the field of management raised a new hope among the craftsmen. In 1934, Rathijema Co-operative Society was established in the village. A building was constructed to house the Rathijema Co-operative Society at a cost of Rs.24,000/-. But this society failed to fulfil the goal of the craftsmen because of the mismanagement of the society on the part of the unexperienced secretaries. The financial position of the society reached such a diplorable state that the government was constrained to auction the movable and immovable properties of the craftsmen who were the members of the society to realise the money. At last the Co-operative Society building was auctioned

also. Thus the Co-operative Society lost the confidence of the craftsmen. Under this critical juncture, the local middlemen exploited the situation and monopolised the craft again and continued to operate successfully for quite sometime and came across heavy odds again during 1939-44 due to break out of the second world war and the fall of Japan in the hands of the allied powers. The war crippled the economy of the country and the purchasing power of the people as well. This accrued in abrupt fall of the price of bell-metal products. These products which were sold three rupees a seer before the war became one rupee and twelve annas during the war period. The local middlemen sustained heavy financial loss owing to the abrupt fall of the price.

But in the subsequent period from 1945-52, the bell-metal craft registered steady growth.

In 1953, sales tax was imposed for the first time on bell-metal products and about 500 craft practising households were victims of this tax. Imposition of 15 per cent sales tax on bell-metal products and non-supply of adequate quantity of raw materials on the part of the local government brought about slump in the craft. During 1953-60, most of the craft practising households engaged themselves as masons in the activities of building construction at Bhubaneswar, the capital city of the state which is about 12 kms. away from the village leaving aside their traditional craft.

However, the implementation of the new industrial policy in 1961 and co-operative scheme in 1967 of the government helped revival of the craft to some extent. Accordingly, co-operative societies were established in the areas mostly inhabited by bell-metal craft practising households. Those are in Pratap Sasan, Bhatimunda, Kantilo etc. with a view to providing financial assistance, raw materials etc. and to save the interest of the artisans from the exploitation of the middlemen. Such infrastructural facilities boost the trade to a considerable extent. But the advent of steel and aluminium in the early seventies posed a formidable problem to this craft. Because the steel and aluminium products attracted the well-to-do families who preferred to these products even if the bell-metal products were selling at only Rs.13.50 per kilogram. But in 1978, the craft took a different turn. Because of the untiring zeal and co-operation of the benevolent politicians like Dr. Harekrushna Mahatab and Satyapriya Mohanty the sales tax on bell-metal craft was abolished. Since 1979, the craft retrieved its former position to some extent and despite exorbitant price of the bell-metal products which costs at present Rs.100.00 to Rs.120.00 per kg. the craftsmen dispersed in different locations of the state still hang on this traditional craft.

History of origin and development of the craft in Kantilo

Like the Mohenzo-Daro and Harppa or Indus Valley civilization there is hardly any historical evidence available to establish the antiquity of bell-metal craft in Kantilo and probably the origin of the craft dates back to 700 AD. During this period water-ways played vital role in transport and communications and the merchants of eastern Orissa used the Mahanadi water-way to establish their trade links with western Orissa. The Census town Kantilo is situated amidst picturesque surroundings of forests and rivers on the confluence of the rivers Mahanadi and its tributary Kamai. The confluence of the rivers Kamai and Kuanria had created a natural harbour on the Mahanadi water-way. The temple of Lord Nilamadhaba whose incarnation is believed to be Lord Jagannath of Puri is situated on the bank of the Mahanadi here. According to historical and local legendary

evidences the temple of Lord Nilamadhaba was built between 6th to 9th century either by Indradyumna or later by the Shome Dynasty who ruled over the kingdom of Baud. The business magnates of the eastern Orissa saw this an ideal place for anchorage of their trading vessels. They were more fascinated by the natural landscape of the place along with the temple of Nilamadhaba, it is believed that such infrastructural facilities might have attracted the traders to settle down in the area who in the course of time initiated the bell-metal craft in this census town.

It is further believed that some traders dealing with utensils had migrated to this area owing to its favourable physical conditions before 700 AD. These traders had dealt in utensils, textiles, wood products and different forest products in far off places like Java, Sumatra, Borneo etc. There are evidences to show that these traders had offered valuable articles to Nilamadhaba procured from these countries. These traders in the course of time might have initiated the craft in this census town.

Moreover, it is also stated that every year wood necessary for construction of the chariots for the car festival of Lord Jagannath of Puri are procured from Nayagarh, Daspalla, Khandpara forests through the Mahanadi river. And as custom prevails some braziers of the eastern region were deployed to watch the movement of the logs in the water-way. These braziers were probably fascinated by the favourable physical conditions of the place for carrying out their profession and ultimately have migrated to the place during 1200 AD. Besides the origin, the development of the craft in the village is synonimous as in the village of Pratap Sasan with some exceptions. Initially the craft practising community here used copper to manufacture utility articles. Copper was available in Bonai (Sundargarh), Kendujhar and Dhenkanal. The craftsmen had to extract copper from the ore. The process involved in the extraction of copper from the ore was hazardous and expensive and ultimately proved unprofitable. As necessity is the mother of invention, the craftsmen discovered the alloys of copper and zinc and copper and tin. Bell-metal is an alloy of copper and tin.

The history of origin and development of the traditional craft in Bhatimunda is surrounded in darkness as no one in the village could furnish information of the origin and development of the craft in the village.

Details of services available to craftsmen in the village

The bell-metal craft as an industry developed in abundance of raw materials and in absence of factory made products. It is skilled vocation and requires preparation, training, education apprenticeship etc. prior to one's recruitment as a craftsmen. Therefore certain services which are considered most indispensable for the craftsmen and the craft itself provided to the craft practising community in their rural settings.

The efficiency of the workers depends upon their personal skill and attainments, the technical training imparted to them, the wages offered, the working conditions in the workshop. A large percentage of the workers have not received any formal technical training. They have picked up the work by experience after working as an apprentice in the workshop and in course of time attain efficiency in the various process requiring higher skill. Thus it takes quite a long time to a non-skilled worker to become semi skilled and a semi skilled worker to become skilled and so on. In order to do away with such difficulties, certain infrastructural facilities like the

location of training institutions, cooperatives etc. were felt imperative.

Under this pretext, two training centres function at Pratap Sasan and Kantilo. The training centre at Pratap Sasan was set up on July 26, 1981 and that of Kantilo on 1st January, 1984. The training centres under the non-ferrous metal scheme aim at imparting training in the manufacture of bell-metal and brass products to the local artisan boys. The workshops in the training centres are furnished with modern machines and equipments for bringing efficiency in workmanship. Besides, instructors with specialisation in every branch of the manufacturing process are deployed to impart training to the artisan boys under the guidance of a superintendent in charge of the centre. But at present training is confined to manufacture of brass wares only.

In addition, common facilities are made available to the local small industrial units. The manufacturers are also helped in resolving their technical and other problems allied to the industry besides rendering them necessary technical advice.

Though village Bhatimunda has been deprived of any such facility, occasional training seminars on brass and bell-metal are held in the village on behalf of the Director of Industries to provide them the necessary technical guidance.

Co-operative societies

The role of co-operatives has been accorded a significant place in five year plans for ensuring rapid and balanced development of the craft which occupies an abiding place in the economy of the state. Director of Industries promotes the development and looks to the day to day problems of these societies. Subsidies, tools and equipments of improved varieties are also provided on behalf of this directorate. It functions as a coordinating and balancing institution for channelising the loans and grants provided by the government. It guides its member co-operatives in regard to production and marketing and finally for linking industrial societies to each other.

Coming to the specific role of the co-operative societies in overcoming the ideological as well as financial problems of the artisan community, a number of co-operative societies function in the units selected for the study of bell-metal craft. There are four co-operative societies function at Pratap Sasan. Similarly, there are three in Kantilo and two co-operative societies function at Bhatimunda. The prime objective of setting up of these societies is to save the interest of the artisans from the exploitation of middlemen besides providing them the raw materials and marketing the finished products.

CHAPTER III

PROCESS OF LEARNING

The brass and bell-metal training centres located in Pratap Sasan and Kantilo impart training on both brass and bell-metal products. But at present only training on brass is imparted. The workers engaged in manufacture of bell-metal products are mostly receiving training from their relatives.

The workshop is their alma mater which provides the technical training for the members of the family. There is no fixed hour of work for the workshop. The young members attend the workshop during working hours and watch their elders engaged in different process of manufacturing. The initial training begins with lending a helping hand in small and simple items of work and thereafter drifted to take up more complicated and arduous nature of work. In course of a couple of years or so when the apprentices are sufficiently grown up and are both physically and mentally prepared for hard and onerous work, they are engaged in one of the branches of the workshop independently. In the similar manner, they gradually take the position of the whole time skilled workers. There is no facility whatsoever for them to go to a training centre organized specially for this purpose. They have no opportunity of learning new technique or benefitting by new ideas. The traditional pattern of training which they get in their family workshop becomes their sole technical experience and efficiency. In getting such training they consider it advantageous to specialize in the manufacture of a particular type of product that is manufactured in their workshop. Such specialization makes them masters in quicker out-turn, better finish and finally ensure them in higher earning.

Before going to further regarding the process of learning it is better to ascertain how many number of persons are engaged in the craft and their relationship to the head of the households along with the period of time engaged in the craft. Regarding this matter data presented in the table III.1 are given below.

Table

Distribution of persons classified by relationship with the head, period engaged

Period engaged in the craft	Number of Number of Persons engaged in the Craft	Number of persons engaged in the craft					
		Self (Head of the household) who performed					
		All work	Hammering	Driver	Kora	Finishing	Matha
1	2	3	4	5	6	7	8
Less than 5 Years	13	-	-	-	-	-	-
5 - 9 Years	11	1	-	-	-	-	-
10 - 19 Years	21	5	1	-	-	-	-
20 + Years	50	24	10	2	2	4	4
Total	95	30	11	2	2	4	4

It is seen from the table that 95 persons are engaged in the craft in 53 households under the survey. Of these, 13 have less than 5 years experience, 11 members are working for last 5 to 9 years, 21 are working for last 10 to 19 years and 50 persons have the experience twenty years or more.

It is needless to mention here that all the 53 head of the households engaged in the craft. Besides, there are 29 sons of these 53 head of the households taking part in

III.1

in the craft and Nature of work performed

who are related to head as

Son who performed						Brother who performed				Son's son who performed
All work	Ham-*mering*	Blower wor-*ker (Bhatia)*	Matha	Driver	Finishing	All work	Hamm-*ering*	Kora	Finishing	Hamm-*ering*
9	10	11	12	13	14	15	16	17	18	19
-	6	1	1	-	1	-	-	2	-	2
-	3	-	1	2	-	1	-	-	3	-
3	6	-	-	-	4	1	-	-	1	-
-	1	-	-	-	-	3	-	-	-	-
3	16	1	2	2	5	5	-	2	4	2

all items of processing required for the craft. Of this, majority have less experience in the craft. It is seen further from the table that only eleven brothers and two grandsons of the head of households have taken part in the processing of the craft. The grandsons are seen only in helping the master craftsman in hammering and their experience is within five years. Table III.2 describes the process of learning of all craftsmen by relationship with the head of household along with the period of time engaged in the craft.

Table

Distribution of persons Classified by Relationship with the Head, the Persons

Period engaged in the craft	Number of persons engaged in the craft	Number of persons engaged in the craft: Self (Head of the household) who received training from				
		Father	Paternal Uncle	Brother	Father-in-Law	Unrelated
1	2	3	4	5	6	7
Less than 5 years	13	-	-	-	-	-
5 - 9 years	11	-	-	-	-	1
10 - 19 years	21	5	-	-	-	1
20 + years	50	36	2	1	1	6
Total	95	41	2	1	1	8

Table III.2 indicates that out of 53 head of the households 41 are trained by receiving the training from their father, two from paternal uncle, one each from brother and father-in-law and 8 from unrelated persons specially known as a master craftsman, most of the later category belong to Bhatimunda village. Eleven craftsmen who are related as brother to the head of the household have learned the processing technique of the craft from their father. Similarly out of 29 sons 27 have received the training from their father. On the whole it is seen that majority i.e. 79 or 83.16 per cent of craftsmen have learned or obtained the knowledge of craftsmanship from their father.

Table III.3 describes the occupation of 95 craftsmen by the relationship with the head of the household and training received.

III.2

Imparted training and the period engaged in the craft

who are related to head as				
Brother who received training from	Son who received training from			Son's son who received training from
Father	Father	Brother	Unrelated	Grandfather
8	9	10	11	12
2	7	1	1	2
4	6	-	-	-
2	13	-	-	-
3	1	-	-	-
11	27	1	1	2

The different stages of work involved in manufacture of the bell-metal products are collection of raw materials (copper and tin) and Kanti (old broken utensils), melting of raw materials or old utensils, moulding, shaping by beating; scrapping filing and engraving of designs.

Table III.3 based on survey data depicts seven main occupations involved in processing of the bell-metal products. Those seven types of occupations are Bhatia, Garha, Kora, Hammering, Matha, Finishing and one more process which includes miscellaneous work i.e. A to Z (all work) of craftsmanship. Out of 95 craftsmen 38 are engaged in miscellaneous work (master craftsmanship), 29 are in hammering, 13 are in finishing, six in Matha, four each in Garha and Kora and one in Bhatia. As discussed earlier this table also shows 79 craftsmen have received training from their father, nine from unrelated persons, two

Table

Distribution of persons engaged in the craft classified by relationship with

Relationship with the head	Number of persons engaged in the craft	Number of persons engaged in the craft							
		All work, where the relation noted at Col.1 received training from					Hammering where relation noted at Col.1 received training from		
		Father	Brother	Father-in-law	Paternal Uncle	Unrelated	Father	Unrelated	Grand Father
1	2	3	4	5	6	7	8	9	10
Self	53	24	1	1	2	2	9	2	-
Son	29	3	-	-	-		16	-	-
Son's son	2	-	-	-	-	-	-	-	2
Brother	11	5	-	-	-	-	-	-	
Total	95	32	1	1	2	2	25	2	2

III.3

the Head, Nature of work performed and the person imparted Training

by nature of work performed

Kora where relation noted at Col.1 received training from	Finishing where relation noted at Col.1 received training from		Garha Driver (Master) where relation noted at Col.1 received training from	Matha where relation noted at Col.1 received training from		Bhatia where relation noted at Col.1 received training from
Father	Father	Unrelated	Father	Father	Unrelated	Brother
11	12	13	14	15	16	17
2	2	2	2	2	2	-
-	4	1	2	2	-	11
-	-	-	-	-	-	-
2	4	-	-	-	-	-
4	10	3	4	4	2	1

each from paternal uncle, brother and grand father and only one craftsman has received the training from his father-in-law who is recorded as the head of the household and has experience 20 years and more as craftsmanship. Bhatia is one of the occupations who operates the blower which regulates fire of the furnance properly. Generally this occupation is done simultaneously with the work of hammering by a hammerman.

It is seen from the survey data that only one young boy with experience of less than 5 years whose relationship with the head of household is son and is engaged fully in the work of Bhatia in Kantilo who has received training from his brother.

Garha

This is an occupation of master craftsman under whose guidance the processing of desired craft is undertaken. Only four are earmarked for this occupation who have received training from their fathers. Of these, two each are from Bhatimunda and Pratap Sasan. There is no man recorded under this occupation from Kantilo which does not mean there is no master craftsman in the village. It is presumed that they have been reported under the occupation under miscellaneous work.

Kora

This occupation is a process of beating the heated bell-metal to bring different shape and size. This process of work continues to complete three stages of processing -- first stage to make the metal plain size (Chaki), thereafter the metal will be heated again and that heated bell-metal will take the concave shape by the beating process which is known as Ganta. Kantika is the next process of beating.

In last stage, the concave shaped metal will take the shape and size of desired bell-metal through heating and beating process. In these three stages of work the technique of beating of the first man or the front man to bring the products in proper size and shape is known as Kora. The craftsman who does this occupation is the next to the master craftsman (Garha). Under this occupation only four are recorded who have received the training from their fathers in Kantilo.

Hammering

This is a process of work to beat the heated metal simultaneously by number of craftsmen so that the metal will not be cracked or disfigured keeping in view inproportion of cooling process by the nature after taking the metal from the melting hearth. Under this occupation there are 29 craftsmen reported, of which 25 have received their training from their father and two each from unrelated persons and grand father. As discussed earlier grand father is recorded as the trainer in case of two young grand sons who have been experienced in the craft less than five years. These two craftsmen belong to Pratap Sasan village.

Matha

This is an occupation relating to finishing of the product of bell-metal by mild hammering either from outside or inside. In this occupation only six are engaged from the sample data, four of which received training from their fathers and two from unrelated persons.

Finishing

This is the occupation of smoothening the surface of the product with the help of Kunda.

The Kunda means a machine of hand driven wooden lathe which rotates the products for polishing work to be done as desired. Under this occupation as many as 13 persons are reported of which ten are trained by their father trained by their fathers and three by unrelated persons.

Work relating to A to Z

This is a type of occupation which includes all the occupations described earlier from Bhatia to hammering along with a sense of master knowledge. Generally an artisan is recognised by other fellow craftsmen from the knowledge he gathered on processing of bell-metal handicraft product. Mostly the master craftsman is engaged in this type of occupation. He is to see that all the occupations starting from A to Z are running smoothly without any difficulties either in technical or mechanical in nature. Under this occupation there are 38 craftsmen recorded of which 32 have received the training from their father, two each from paternal uncle and unrelated persons and one each from father-in-law and brother.

Table III.4 depicts the distribution of persons engaged in the craft who have received the training for the craftsmanship indicating about the trainer, period of training imparted to and remuneration paid by relationship with the head of household.

Table

Distribution of persons engaged in the craft classified by relationship with

Relationship with the head	Number of persons engaged in the craft	Number of persons engaged in the Father for the period		
		Less than 6 months	6 months to 1 year	2 + years
1	2	3	4	5
Self (Head)	53	4	8	29
Son	29	3	5	19
Son's Son	2	-	-	-
Brother	11	-	6	5
Total	95	7	19	53

Note :- The persons engaged in the craft who received training from their relations get no remuneration as the same is obligatory.

III.4

the head, the person imparted training, period of training and remuneration

Craft who received training from							
Brother for the period		Grand father for the period		Parental Uncle for the period		Father-in-law for the period	Other unrelated for the period
Less than 6 months	2 + years	Less than 6 months	6 months to One year	Less than 6 months	2 + years	2 + years	2 + years and paid remuneration
6	7	8	9	10	11	12	13
-	1	-	-	1	1	1	8
1	-	-	-	-	-	-	1
-		1	1	-	-	-	-
-	-	-	-	-	-	-	-
1	1	1	1	1	1	1	9

It is seen from the table III.4 that almost all craftsmen under survey have received the training from their relatives on obligatory basis. Only nine craftsmen who have received the training from unrelated persons have been paid the remuneration at the rate of two rupees to 16.50 rupees per day. Further it is seen that ten craftsmen have received training for less than six months, twenty have received training for the period of two years and above of which nine are trained with remuneration as indicated above from the unrelated persons. Survey of the craft during 1987 reveals that all 95 craftsmen under survey have received their training for different period of time for which no terms and conditions are mentioned.

Table III.5 exhibits the satisfaction of the training received by the craftsman under survey.

Table III.5

Assessment of training received by the persons as related to the period engaged in the craft, and intention to receive better training

Period engaged in the Craft	Number of persons engaged in the Craft	Number who Consider the training received is			Number in favour of	
			Inadequate			Not receiving better training
		Adequate	Non-availability of training facility (New Tech.)	Under training	Receiving better training	Satisfied with the present training
1	2	3	4	5	6	7
Less than 5 Years	13	6	6	1	7	6
5 - 9 years	11	7	4	-	4	7
10 - 19 years	21	14	6	1	7	14
20 + years	50	33	17		17	33
Total	95	60	33	2	35	60

It is seen from the table that out of 95 artisans sixty have expressed their satisfaction that the training received by them is quite adequate. No better training is necessary for them whereas only 35 ambitious craftsmen have expressed their feeling about inadequacy of the training. They are eager to receive better training. Of this 35 ambitious craftsmen 17 are working for more than twenty years in the craft, seven have the experience of 10 to 19 years and four have 5 to 9 years and rest seven have experience of less than 5 years.

Although training centres are opened by the government for the improvement of the artisans these dissatisfied 35 craftsmen as those training centres only meant for brass metal product not for the bell-metal. In practical field at the time of survey it is also ascertained from the training centres that the training is imparted on the technique of brass metal products only. The trainees of the government institute are trained to manufacture flower base, incense stand, water pot etc which are made up of brass only. However, it is felt that the training facilities for the production of bell-metal products should be provided by the government to satisfy the ambitious craftsman.

Survey data further reveal that out of 53 households 23 have restrictions to impart the training to other caste and community. In general it is ascertained that these artisans do not like to tell the secrecy of the technique of the craft to other household belonging to nonkin.

As discussed earlier it is seen from the survey that all the craftsmen have acquired skill of the craftsmanship from their relatives like father, grand father, brother, paternal uncle and father-in-law. Only 9.47 per cent of the craftsmen have received the training from the unrelated persons. The main method of receiving the training is audiovisual and through practice in practical field by experience.

Details of this may be seen from the table III.6 and III.7.

Table III.6

Households reported restrictions for imparting training to people as related to period engaged in the craft

Period engaged in the craft in respect of the head of household	Number of households engaged in the craft	Number of households reported having		Number of households reported having restriction for imparting training to people		Remarks
		Restriction for imparting training	No restriction for imparting training	Out-side the kin-group	Other Caste/ Community	
1	2	3	4	5	6	7
Less than 5 years	-	-	-	-	-	
5 - 9 years	1	1	-	-	1	
10 - 19 years	6	3	3	-	3	
20 + years	46	19	27	-	19	
Total	53	23	30	-	23	

Table III.7

Distribution of persons engaged in the craft classified by relationship with the head and source of acquirement of skill (in case the skill is passed on from father to son traditionally)

Relationship with the head	Number of persons engaged in the craft	Number reported having acquired skill through audio-visual and practice method					
		Father to Son	From grand father	From father-in-law	From Brother	From paternal Uncle	From Unrelated (Observation and engineering)
1	2	3	4	5	6	7	8
Self (Head of the household)	53	41	-	1	1	2	8
Son	29	27	-	-	1	-	1
Son's Son	2		2	-	-	-	-
Brother	11	11	-	-	-	-	-
Total	95	79	2	1	2	2	9

Biographical Sketch of Master Craftsmen

To obtain a deeper insight into the learning process of bell-metal craft the biographical sketches of three master craftsmen are presented.

Maguni Sahu

He was born in 1934 in the village Bhatimunda. His father Bairagi Sahu was traditionally occupied in bell-metal craft. Maguni Sahu started his schooling at the age of seven and studied upto primary standard. He could not prosecute his studies so much owing to his family difficulty. After attaining the age of 13 he practised the craft under the guidance of his father. When his father was satisfied with his performance he married to Gura Dei of the same village. His active interest with the craft and the guidance of his father greatly inspired him to take up the craft as a means of livelihood. He is blessed with five children of which three are sons and two are daughters. At later stages he was further inspired when his products were highly praised by the consumers.

From the day of his entry into the craft till the date of survey, he is successfully maintaining his family without much difficulty. But he is of the opinion that the craft can be further improved provided the raw materials are supplied adequately to the artisans.

Judhistir Sahu

Judhistir Sahu, a man of 47 was born in 1940 in Kantilo. His father was Kanhu Sahu. Since generations, the family was traditionally involved in the manufacture of bell-metal products. Besides his natural instinct for the craft, Judhistir Sahu was greatly inspired by the artistic skill of his father. He studied upto primary standard and engaged himself in the craft. He received his training and specialisation under the guidance of his father. After years of strenuous training he became a skilled artisan. He married at the age of 22 to Gelhei Sahu of Kantilo and has been blessed with five sons and three daughters.

His products displayed in fairs in various occasions were highly appreciated which further inspired him to perfection.

He is an accomplished craftsman and has achieved perfection in all the manufacturing process of bell-metal wares. According to his opinion the craft of bell-metal is a highly skilled vocation and mainstay of the artisans and should be further improved by supplying raw materials and expanding marketing facilities considerably. Presently he comes across lot of difficulties in maintaining his family.

Hula Gada

Hula Gada, a man of 60 is a very old master craftsman of Pratap Sasan. He was born in 1927. He was the son of Banamali Gada. He had studied upto primary standard and being encouraged by his mother and relatives he engaged himself in the craft as a craftsman after successfully completing the period of apprenticeship under the guidance of his father. He married to Radha Gada at the age of 24 and has only one son and one daughter. After marriage he received further inspiration from his wife and became one of the accomplished master craftsmen of the village. He has gained enough experience in all the processes involved in the manufacture of Thali (Plates) and Gina (cups). The interesting aspect of his career is that his products namely plates and cups are greatly in demand because of its quality.

He categorically expressed his anguish over the acute shortage of raw materials and still competition of bell-metal products with the factory made products. But such problems can be overcome only if raw materials at a controlled price can be supplied to the artisan community as because the people of the region and outside still retain their aesthetic appreciation for the bell-metal products.

CHAPTER IV

MANUFACTURING PROCESSES

Place of Work

Practising of bell-metal handicraft, a molten and beaten metal ware is a household industry. This needs long process or strenuous works in the workshop. Generally, the workshops are located in the part of dwelling house or in the workshed adjunct to the residential premises of the artisan. Of the 53 surveyed households 47 have workshops of their own and rest six households are working as Bindhani (Labourers) in other's workshop.

Again out of 47 workshops it is earmarked that 46 are situated in the part of their dwelling houses in the two surveyed villages and one census town. Only one workshop is functioning outside the residential house premises of the artisan in the census town Kantilo in which two family workers are working as craftsmen including head of household. Out of 46 workshops seven are in Bhatimunda, twenty are in Pratap Sasan and 19 are in Kantilo. In these workshops 40 persons other than the head of households are working as the craftsmen. Six Bindhanis having no workshops are working in other's workshop in the village Bhatimunda to run their family smoothly. Other than these six Bindhanis another artisan is also accompanying with them to work in other's workshop.

Out of 42 artisans other than the head of household there are three artisans in the age group 0-14 years each has experience of less than five years in the craftsmanship. There are 33 artisans in the age group 15-34 years of which only seven have less than five years experience in the craft, nine have experience of 5 to 9 years, 16 have 10-19 years and only one has twenty and more years experience in the field of craftsmanship. Another six artisans who are in the age group of 35-59 years have experience ten years and more. Further it is known from the survey that out of 53 head of the households 12 are more than 59 years old each having the experience of twenty years or more in the field of craftsmanship. There are 40 head of the households recorded in the age group 35-59 years of which 34 have twenty years and above experience, five have 10 to 19 years experience and one has only 5-9 years experience in the processing of bell metal handicraft. Only one head of the household who is in the age group 15-34 years has experience 10-19 years in this art of the craft in the village of Pratap Sasan.

Survey further reveals that 86 craftsmen are engaged in the craft whose place of work is in their own dwelling houses. The rest nine artisans are attending their duties in the workshops situated outside their place of residence but within the

village. They are moving on foot to the place of work which is less than one kilometre of distance.

Out of 47 workshops in survey of two villages and one census town there are 12 workshops each occupying an area of 17 to 24 sq.metres. Only six workshops each has the space of more than 24 sq.metres of which two are at Bhatimunda and four at Pratap Sasan. There are eleven workshops each occupying a space of 11 to 16 sq.metres. Of these workshops one is outside the residential premises. There are also ten workshops each of them with the space of 6 to 10 sq.metres and the rest eight workshops with the space of less than six sq.metres functioning at the place of residence of the artisans.

The problems relating to the place of work is not significant as ascertained from the survey. Twentynine households out of 47 have reported that there is no problem. Rest of the 18 households have mentioned to record their problem as insufficient area. As regards other problems relating to place of work only one household has reported want of fire proof house as his problem.

Details relating to the place of work of the craftsmen are given in table IV.1, IV.2, IV.3 and IV.4 as per the data collected during the survey.

Table IV.1

Distribution of households and persons engaged in the craft as related to place of work (Consolidated)

Place of work of the head of the household	No. of households where place of work of head of household (as noted in Col. No.1)	Place of work of persons other than the head of household is same as that of head of the household
1	2	3
1. Part of the dwelling house	46 (86)	40
2. Workshop		
(a) Owned by the household	1 (2)	1
(b) Owned by others. (Workshop of Maguni Sahoo, Padan Sahoo, Mayadhar-Maharana)	6 (7)	1
Total	53 (95)	42

Note:- In Column-2 total number of persons engaged in the households is given in parenthesis below the number of households (family workers only)

Table

Households Classified by Broad Age-group, Place of work and duration of work

Age-group	Duration of work in the handicraft	Number of heads of households engaged in the handicraft	Number of persons other than the head of household engaged in the handicraft	Place of: Part of the dwelling house where: Number of head of the households engaged	Place of: Part of the dwelling house where: Number of persons other than head of the households engaged
1	2	3	4	5	6
0 - 14	Less than 5 years	-	3	-	3
	5 - 9 years	-	-	-	-
	10 - 19 years	-	-	-	-
	20 + years	-	-	-	-
15 - 34	Less than 5 years	-	7	-	6
	5 - 9 years	-	9	-	9
	10 - 19 years	1	16	1	15
	20 + years	-	1	-	1
35 - 59	Less than 5 years	-	-	-	-
	5 - 9 years	1	-	1	-
	10 - 19 years	5	2	5	2
	20 + years	34	4	28	4
60 +	Less than 5 years	-	-	-	-
	5 - 9 years	-	-	-	-
	10 - 19 years	-	-	-	-
	20 + years	12	-	11	-
	Total	53	42	46	40

IV.2

in the handicraft in relation to head of the household and other members.

work				
				Remarks
Work Shop				
Owned by the households where		Owned by others where		
Number of head of the house-hold engaged	No.of persons other than head of the household engaged	No.of head of the household engaged	No.of persons other than head of the household engaged	
7	8	9	10	11
-	-	-	-	1. All the workers are males only 2. Brass and Bell-metal training centres found in the surveyed centres are not imparting on Bell-metal products.
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	1	
-	-	-	-	
-	1	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
1	-	5	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	1	-	
1	1	6	1	

Table

Place of work of persons engaged in the craft classified by area occupied

Place of work	Number of persons engaged in the craft	Occupied area		
		Less than 3 sq.mts. and number of persons working at the place of work noted in Col.1	3 - 5 sq.metres and number of persons working at the place of work noted in Col.1	
		Single	Single	2 - 5
1	2	3	4	5
1. Part of the dwelling house	86	1	3	4
2. Workshop				
a) Owned by the household	2			
b) Owned by others (Maguni Sahoo,Padan Sahoo and Mayadhar Maharana etc.)	7			

Note :- (1) For Family workers only.

(2) Workers engaged in different workshops are not netted in Col. 3 to13.

IV.3

and number of persons working therein

of the place of work

6 - 10 sq.mts. and number of persons working at the place of work noted in Col.1		11 - 16 sq.mts. and number of persons working at the place of work noted in Col.1		17 - 24 sq.mts. and number of persons working at the place of work noted in Col.1		25 + sq.mts. and number of persons working at the place of work noted in Col.1	
Single	2 - 5	Single	2 - 5	Single	2 - 5	Single	2 - 5
6	7	8	9	10	11	12	13
5	5	5	5	4	8	3	3
-	-	-	1	-	-	-	-
-	-	-	-	-	-	-	-

Table

Place of work of persons engaged in the craft classified by

Place of work	Number of persons engaged in the craft	Occupied Area of					
		Less than 3 sq.meters		3 - 5 sq. meters		6 - 10 Sq.mt.	
		Adequate	Inadequate	Adequate	Inadequate	Adequate	Inadequate
			Insufficient in area		Insufficient in area		Insufficient in area
1	2	3	4	5	6	7	8
1. Part of the dwelling house	86 (46)	-	1 (1)	7 (5)	5 (2)	11 (7)	5 (3)
2. Workshop							
(a) Owned by the household	2 (1)	-	-	-	-	-	-
(b) Owned by others (Maguni Sahoo, Padan Sahoo and Mayadhar Maharana etc.)	7 (-)	-	-	-	-	-	-

Note:- (1) Figures in Col.3 to 15 indicate number of Surveyed workers i.e family workers only.
(2) Figures in Parenthesis indicate number of workshop.

IV.4

area occupied and problems relating to the place of work

place of work						Number of persons having other problems relating to the place of work
11 - 16 sq. meters		17 - 24 sq.metres		25 + sq.metres		
Adequate	Inadequate	Adequate	Inadequate	Adequate	Inadequate	
	Insufficient in area		Insufficient in area		More space required	Want of fire proof roof
9	10	11	12	13	14	15
13 (7)	6 (3)	16 (8)	10 (4)	1 (1)	11 (5)	1
2 (1)	-	-	-	-	-	-
-	-	-	-	-	-	-

Purity and Pollution associated with the Craft

Like other traditional village occupations, production of bell-metal handicraft is being practised hereditarily by a particular community called Kansari (Brazier dealing with brass and bell-metal ware). Literary meaning of Kansari is skilled worker in bell-metal.

Survey revealed that manufacturing trade secret of bell-metal products is almost being maintained by the artisans belonging to Kansari community. Because of the craft fidelity and trade secrecy maintained in various regions, each important craft centre of manufacture was identified with its unique speciality to a great extent in the past and to some extent even now. The example is Kantilo at which superior types of utensils are prepared than Bhatimunda. Again artisans of Bhatimunda are preparing superior utensils than that of Pratap Sasan. This craftsman community or Jati constitute an endogamous unit with its own commercial and connubial rules. Like the other craftsmen community namely Sankhari (Bangle-maker), Mali (Florist), Kamar (Iron-smith), Kumbhar (Potter) and Swarnakar (Goldsmith), Kansari (Brazier) is also socially superior over three other craftsmen community namely Tanti (Weaver), Sutradhar (Carpenter) and Chitrakar (Painter). In spite of this scriptural observation, all these nine craftsmen communities enjoy more or less equal status in the Hindu social order of Orissa.

Kansaries are assigned with specific ritual duties (seven) in the temple of 'Lord Jagannath' such as the Tamara Bishoi Seva and the Ghantua Seva under the Chhatisha Niyoga. Kansaries are sensitive in maintaining certain community customs such as the restriction on divorce, commensal taboo with men considered as low caste by them, strict commercial restrictions on fowl and liquor, connubial relations with other castemen etc. The Kansaries worship Vishnu, Siva and number of deities. They worship Kali, the deity of Shakti or power as their presiding deity on the occasion of Dasahara festival. They have belief in ritual purity and pollution and the act of Brahmin who also worship tools and equipments on Dasahara festival.

In order to maintain the craft fidelity Kansaries are working hard to keep the secrecy of the trade. At times during boom season they utilise the labour of the auxiliary work-force on the basis of payment of wages specially for hammering and Bhatia work from other non-Kansari communities. The manufacturing process of bell-metal products is a household industry where the owner acts as the entrepreneur, manager, proprietor, financier artisan and peddler or trader. It is told that if a non-Kansari person uses Sala Ankuri to test the molten alloy of bell-metal in the heated Koi will be suffering from leprosy in the later stage of his life or will be disabled. It may be a blind belief but they have strong faith in it.

Previously Brahmins were restricted to visit the workshop at the time of melting of the alloy, at present also they do not feel well for their presence. This type of feeling of Kansari is brought from the generation to generation. This is due to the fearness of the knowledge of Brahmin on Veda which has the quality of world shaking or destroying force of Agni (fire). If the small heated Koi comes to the front of great shaking force there is little possibility of survival of the little earthen Koi. Another belief is heard that the ladies were not allowed to the workshop during the first week of their monthly period for sanctity of the workshop.

As many as eleven households of Pratap Sasan village opined that for preparation of temple and ritual accessories for Lord Jagannath the

craftsmen perform some Puja before taking up the work. The survey of 1987 reveals that out of 53 households eleven are in strong favour of observing purity associated with bell-metal products as discussed earlier hoping the future prospect on the trade. The rest 42 households are recorded who feel that now-a-days these beliefs need not be observed scrupulously because of the present mode of the society towards the easy reaching object and polluted living and also change of taste of the society.

The young head of household in the age group of 15-34 who feels the need to observe the purity of the craft belongs to Pratap Sasan. Of the other 10 households of the same village who reported in favour of observing the purity, nine are in the age group of 35-59 years and only one is aged 60 or above years.

Surveyed data on the purity/pollution are presented in table IV.5 and IV.6.

Table IV.5

Households reporting about the purity/pollution associated with the craft classified by religion, caste/tribe/community of the head of household

Religion, Caste/Tribe/ Community of the Head of the household		Number of households engaged in the Craft	Number of households reported purity/pollution	Number of households reported about the purity associated with the craft	
Religion	Caste/ Tribe/ Community		Associated with the craft	In prepration of accessories for Lord Jaganath the craftsman performs some Puja before taking up the work (So Seva or Pataka in Hinduism)	The artisans avoid Brahmins into the workshop at the time of melting of the alloy. It is because of fear of destruction of Koi as Brahmins know "Veda". The artisans perform Puja before taking up the Craft
1	2	3	4	5	6
				Consolidated	
Hindu	Kansari	53	53	11	42
				Bhatimunda	
Hindu	Kansari	13	13	-	13
				Pratap Sasan	
Hindu	Kansari	20	20	11	9
				Kantilo	
Hindu	Kansari	20	20	-	20

Table IV.6

Households reported having the need/no need to observe purity/pollution associated with the craft with reasons thereof, classified in religion,caste/tribe/community of the head of the houshold

Religion,Caste/Tribe/Community of the head of the household		Number of households engaged in the Craft	Number of households reported having need to observe the purity/pollution associated with the craft because of	Number of households reported having no need to observe the purity/ pollution associated with the craft because of
Religion	Caste/ Tribe/ Community		Traditional belief	Change of taste or attitude of society
1	2	3	4	5
			Consolidated	
Hindu	Kansari	53	11	42
			Bhatimunda	
Hindu	Kansari	13	-	13
			Pratap Sasan	
Hindu	Kansari	20	11	9
			Kantilo	
Hindu	Kansari	20		20

Different Bell-metal Products

The bell-metal handicraft objects manufactured by different artisan households under survey are (1) Thali (Plate or Tray),(2) Thalia (Saucer or quarter plate), (3) Kansa or Bela (Bowl), (4) Tatia or big Gina (Cup), (5) Small Gina or Small Bati (Small cup), (6) Parasa (7) Bell (8) Ghanta (Gong), (9) Jhanja, (10) Kubuji and (11) Gini (Figure no. 1&2). The first six items are household utensils and the rest five items are temple or ritual accessories. As per Thana Sabha definite households specially in Pratap Sasan and Kantilo are required to prepare either Thali and Thalia or Kansa (Bela), Tatia and Parasa or Gong etc. Owing to non-availablity of sufficient raw materials and funds and for changing demand of the consumers some households are also manufacturing articles other than their specific items as and when required by the consumers. In that case they have to take help of specific skilled artisans for the specific purpose specially Garha (artificer)

Figure No. 6 & 7 show different types of Kansa or Bela (the bowl) for eating watered rice.

In the three selected villages 53 surveyed households are preparing different household utensils and ritual or temple accessories in 47 workshops.

Kansa

It is a bowl locally known as Bela shown in fig. No. 1, 6&7. This household utensil is almost cylinder type of short height of 6 to 8 cms., base diameter is 12 to 14 cms. and thickness of the item is 1.5 to 3 mm. At the top the open circular diameter varies from 14 to 16 cms. This product of bell-metal is manufactured by 18 households of the three surveyed villages. It is used generally to take the watered rice, watery food or liquid food or liquid tiffin. Of these 18 households only one household in Bhatimunda is producing less than 10 Kansas per month, two households from Bhatimunda are manufacturing 10 to 25 pieces per month and one household in Kantilo is also manufacturing 26-50 pieces of Kansa per month. Out of the rest 14 households seven are producing in the range of 51 to 100 pieces, the other seven households are manufacturing 101 and more pieces per month. The consumer of this item are purchasing either direct or through middlemen or through co-operative societies. However, their production is decreased to some extent in rainy season.

Thali

It is a bell-metal plate locally known as Thali (Fig.1,3 & 4) the base of this utensil is circular whose diameter is 16 to 26 cms. The height of circular border of the plate is 2 cms. to 5 cms. as per the demand instructions. It is a open plate with thickness more or less same as in case of Kansa mentioned earlier. It is used to serve dry food specially dried rice. This utensil has the highest demand of the consumers. There are 20 households engaged to produce this type of utensils to satisfy the demand of the users. Of these 20 households 14 are there who are producing 51 and more pieces per month of which four exceeds the limit of 101 pieces per month. The rest are six households only, of which four are producing 26 to 50 pieces and rest two less than ten pieces per month. Production of this item of bell-metal is also reported that the rainy season has the effect on its production.

Thalia

It is a smaller size of Thali and is well known as saucer or quarter plate shown in figure 1 & 5. It has no way less demand than the other item described above. This piece of item is also manufactured by 19 households to meet the demand of the consumers. Generally fried curry and light tiffin are served in it. There are seven households who manufactured 101 or more pieces per month, eight households produced in the range of 51 to 100 pieces and the rest four hoseholds are producing less than 50 pieces per month. In this case also the rainy season has its influence over it.

Tatia

It is small size product of Kansa or(mini Kansa) a small bowl or cup (Fig. No.1 & 7) has base circular diameter 8 cm and open circular diameter 9.5 cm whose height is 6 cm and thickness is 2.2 mm. It is used to serve the liquid curry and tiffin or all sorts of liquid food. This small product has also much demand in each of the households for which 12 artisan households are engaged to produce and meet the demand. Near about 75 per cent of these 12 households are producing more than 50 pieces per month of which six produced more than 100 pieces. The only three households produced less than 25 pieces per month. In this case also rainy season is not suitable for the production.

Parasuni/Parasa

It is the middle size product of Kansa or bigger size of Tatia (cup) as shown in fig. 1.

This Parasuni is used only to serve food from rice vessel to Thali or Kansa. It is heard that the persons who are using Parasuni to take watered rice are not facing any stomach trouble. As there are miracle effects using the costly material either in ear or finger to protect from fearness, danger, sleepy, thirst etc. this Parasuni has charming effect to the stomach of the persons when it comes in contact with the rice. This has no such demands like other utensils described earlier. However, out of all the surveyed households only four of Bhatimunda village are engaged to produce such products. Still then there are two households out of the four manufacturing more than 101 pieces per month and other two households are producing less than 25 pieces.

As regards seasonal variation rainy season does not permit the consumers to place order for the same.

Gina

It is the smallest size of the bell-metal products or mini Tatia (Fig.1). It is used to serve ghee, butter or very small quantity of eatables. It is also further used to carry the oil from bigger pot to massage the body before taking bath. It has no much demand for which it is seen from the survey that only one household of Pratap Sasan is preparing this product less than ten pieces per month.

Jhanja

Its very name produces the sound of Jhan (fig. 2). Two flat sized pieces produce peculiar immotional sound by collaiding each other. Each piece of Jhanja (cymbals) is a circular disc of 23.5 cm. diameter. It is used in the functions of God and Goddess or daily in the temple at particular time (Alati).

It is also further used by the members of the music party. Only four households are manufacturing his item of bell-metal product. Less than 25 pairs are manufactured per month.

Ghanta

It is short height cylinder type sound producing instrument (Fig.2). Its back side is circular of about 25 cm diameter and height is about 4 cm and thickness about 2mm. Its open face is a circle of the same diameter of back side reduced by the thickness of the metal plate used on the circumference. A stick made of wood or cane is used to beat it to produce sound. Its use is restricted as because its peculiar strong rythmic of sound which is required at the time of invoking God and Goddess. It is not used in any other social functions. However, this item of bell-metal product is manufactured by four households, three from Bhatimunda and one from Pratap Sasan. Its production is limited up to 25 pieces per month, in three workshops of Bhatimunda whereas one workshop of Pratap Sasan is manufacturig more than one hundred pieces per month.

Bell

It is a solid thick circular plate. The plate is 6 mm thick with about 25 cm diameter. There is a hole near the circumference of the plate through which a string passes to hang. There is a hammer made of wood which is used to beat the bell to produce the sound (Fig. 2). This sound producing instrument is used in schools. It is also some

times used in the temple for invoking the God or Goddess. This product is manufactured by two households only and its average monthly manufacture is less than 25 pairs.

Kubuji

This is a small musical instrument smaller than Jhanja with projection at the back side of the central place of small size Jhanja. In other words in Kubuji there is a hollow space in centre in both the pieces of the instrument which produces pleasing sound (Fig. 2). It is rarely used by Palabala or in temple. Only one household is manufacturing Kubuji at Bhatimunda whose average monthly production is less than 25 pairs.

Gini

Smallest size of Kubuji (fig. 2) is also used in Pala by the chief musician to bring the rythmic sound which appeal the audience. This type of instrument is produced by two households of Bhatimunda whose average monthly production is less than 10 pieces.

Survey data on the subjects cited above are detailed in tables IV.7 and IV.8

Table IV.7

Distribution of households manufacturing Handicraft Items,for purpose as related to Educational Level of the head of the household

Educational level of the head of the household	Name of the Handicraft items manufactured	Number of households manufacturing handi-craft items	Number reporting purpose for which the particular item is used	
			To serve food	For Religious worship
1	2	3	4	5
Illiterate	1. Thali	1	1	-
	2. Thalia	2	2	-
	3. Bela/Kansa	1	1	-
	4. Tatia	1	1	-
Literate without Educational level	1. Kansa	6	6	-
	2. Tatia	5	5	-
	3. Parasa	3	3	-
	4. Ghanta	3	-	3
	5. Bell	1	1	-
	6. Jhanja	3	-	3
	7. Thalia	5	5	-
	8. Gini	2	-	2
	9. Thali	6	6	-

Table IV.7 Concld.

1	2	3	4	5
Primary or Junior Basic	1. Kansa	10	10	-
	2. Tatia	6	6	-
	3. Parasa	1	1	-
	4. Ghanta	1	-	1
	5. Bell	1	-	1
	6. Jhanja	1	-	1
	7. Kubuji	1	-	1
	8. Thali	11	11	-
	9. Thalia	11	11	-
	10. Gina	1	1	-
Middle	1. Kansa	1	1	-
	2. Thalia	1	1	-
	3. Thali	1	1	-
Matric or Higher Secondary	1. Thali	1	1	-
Total	1. Thali	20	20	-
	2. Thalia	19	19	-
	3. Kansa	18	18	-
	4. Parasa	4	4	-
	5. Ghanta	4	-	4
	6. Bell	2	-	2
	7. Jhanja	4	-	4
	8. Kubuji	1	-	1
	9. Gina	1	1	-
	10. Gini	2	-	2
	11. Tatia	12	12	-

NB:- Incol. 2 total number of households are more than that of Surveyed households because one particular household is not manufacturing only a particular item of Bell-metal product. That means the household is manufacturing more than one item.

Table IV.8

Distribution of Households manufacturing Handicraft Objects by number of Items manufactured in a month and Seasonal Variations in the production of the Items as Related to Educational Level of the Head of the household

Educational Level	Name of handicraft items manufactured	Number of households manufacturing handicraft items	Number reporting number of items manufactured in a month					No.of households reported having Seasonal variation in the production of the items	
			Less than 10	10-25	26-50	51-100	101+	Number of households	Less in the rainy Season
1	2	3	4	5	6	7	8	9	10
Illiterate	1. Thali	1	-	-	-	-	1	1	1
	2. Thalia	2	-	-	-	1	1	2	2
	3. Bela/Kansa	1	-	-	-	-	1	1	1
	4. Tatia	1	-	-	-	-	1	1	1
Literate without Educational Level	1. Bela/Kansa	6	1	1	-	1	3	6	6
	2. Tatia	5	1	1	-	-	3	5	5
	3. Parasa	3	1	1	-	-	1	3	3
	4. Gong	3	2	-	-	-	1	3	3
	5. Bell	1	1	-	-	-	-	1	1
	6. Jhanja	3	2	-	1	-	-	3	3
	7. Thalia	5	1	-	1	1	2	5	5
	8. Gini	2	2	-	-	-	-	2	2
	9. Thali	6	1	-	1	2	2	6	6
Primary or Junior basic	1. Bela/Kansa	10	-	1	1	5	3	10	10
	2. Tatia	6	1	-	-	3	2	6	6
	3. Parasa	1	-	-	-	-	1	1	1
	4. Gong	1	-	1	-	-	-	1	1
	5. Bell	1	-	1	-	-	-	1	1
	6. Jhanja	1	-	1	-	-	-	1	1
	7. Kubuji	1	-	1	-	-	-	1	1
	8. Thali	11	-	-	3	8	-	11	11
	9. Thalia	11	-	-	1	6	4	11	11
	10. Gina	1	1	-	-	-	-	1	1
Middle	1. Bela/Kansa	1	-	-	-	1	-	1	1
	2. Thalia	1	1	-	-	-	-	1	1
	3. Thali	1	1	-	-	-	-	1	1
Matric or Higher Secondary	1. Thali	1	-	-	-	-	1	1	1

Raw materials

Bell-metal is not a single element but an alloy of two important metal of copper and tin. This alloy is prepared with the proportion of 4:1 of copper and Ranga (tin). Copper has a special quality of moderately hard substance and enough strength to take the shape of varieties of different structural products. The artisans have taken the facilties of essential qualities of copper to manufacture the desired products. Besides the copper has resale value as it is weather proof and very good conductor of electricity. The melting point of the copper is 1083 degree C. When it comes in contact with tin whose melting point is 232 degree C the melting point of the alloy comes down to below 1000 degree C. As the tin is highly plastic in nature this is also shared to alloy to take different shape easily. With different proportion of these tow elements of copper and tin an alloy is also prepared to manufacture the products of bronze.

Although for bell-metal the copper is the main element of the alloy it is difficult to produce different type of products from copper only due to its porosity.

All type of bell-metal products described earlier are produced from the alloy of these two raw materials with the said proportion.

Table IV.9 presents the average monthly consumption of raw materials required for bell-metal products by the number of households for each item of handicraft at different educational level of head of households.

Table IV.9

Average Monthly Consumption of raw materials by seasonal variation for Manufacturing different items of Handicraft classified by Educational Level of the Household

Educational Level of head of Household	Name of Handicraft items manufactured	No.of household manufacturing handicraft-	Average monthly Consumption of each raw material			No. reported having seasonal variations in the consumption of raw materials		
			Copper in KG.	Tin in KG.	Old Utensils Kanti in KG.	(Copper) Difficult for transportation, less production in rainy season	(Tin) Difficult for transportation, less production in rainy season	(Kanti) Difficult for transportation, less production in rainy season
1	2	3	4	5	6	7	8	9
Illiterate	Thali	1	-	-	140	-	-	1
	Thalia	2	1050	263	45	2	2	2
	Bela/Kansa	1	-	-	120	-	-	1
	Tatia	1	-	-	80	-	-	1
Literate without Educational Level	Bela/Kansa	6	210	52	98	6	6	6
	Tatia	5	552	138	4.8	5	5	5
	Parasa	3	40	10	4.7	3	3	3
	Gong(Ghanta)	3	64	16	4.7	3	3	3
	Bell	1	-	-	1.6	-	-	1
	Jhanja	3	30	8	1.8	3	3	3
	Thalia	5	364	91	50.25	5	5	5
	Gini	2	-	-	2.15	-	-	2
	Thali	6	460	115	25.25	6	6	6
Primary or Junior basic	Bela/Kansa	10	252	63	323	10	10	10
	Tatia	6	50	13	172	4	4	6
	Parasa	1	-	-	60	-	-	1
	Gong	1	-	-	10	-	-	1
	Bell	1	-	-	10	-	-	1
	Jhanja	1	-	-	5	-	-	1
	Kubuji	1	-	-	5	-	-	1
	Thalia	11	20	6	460	11	11	11
	Thali	11	238	60	330	11	11	11
	Gina	1	-	-	10	-	-	1

Table IV.9 Concld.

1	2	3	4	5	6	7	8	9
Middle	Thalia	1	-	-	3	-	-	1
	Thali	1	-	-	4	-	-	1
	Bela/Kansa	1	72	18	-	1	1	-
Matric	Thali	1	-	-	300	-	-	1
Total	Thali	20	698	175	799.25	17	17	20
	Thalia	19	1434	360	558.25	18	18	19
	Bela/Kansa	18	534	133	541.	17	17	17
	Tatia	12	602	151	286.8	9	9	12
	Parasa	4	40	10	64.7	3	3	4
	Gina	1	-	-	10	-	-	1
	Bell	2	-	-	11.6	-	-	2
	Gong	4	64	16	14.7	3	3	4
	Jhanja	4	30	8	6.8	3	3	4
	Kubuji	1	-	-	5	-	-	1
	Gini	2	-	-	2.15	-	-	2
Grand Total		87	3402	853	2300.25	70	70	86

Table IV.9 shows that near about 34.02 quintals of copper and 8.53 quintals of tin are required per month as raw materials for the production of the bell-metal by 53 households of three villages under survey. The highest quantity of raw material is required for Thalia (14.34 quintals copper and 3.60 quintals tin per month). Thali comes next with 6.98 quintals copper and 1.75 quintals of tin followed by Tatia with 6.02 quintals of copper and 1.51 quintals of tin and Kansa with 5.34 quintals of copper and 1.33 quintals of tin. It is further noticed from the survey that seasonal variation is there at the time of rainy season due to lack of transport facilities.

The artisans are trying hard to get the raw material from different sources. They run to the Co-operative Societies, local businessmen to get the raw materials. Besides, they also move outside the state to cosmopolitan city Calcutta for the same. When they collect the raw material from outside the State, they have no other alternative than train and truck for the communication. Within the state when they collect raw material from local middle men or Co-operative society they use their foot or bicycle for the same.

It is seen from Table IV.10 that there are 25 households who mainly depend on Kanti as raw material taking much pain, either self or through agents, move door to door to collect Kanti (old utensils) directly from the consumers and brought to the workshop either by bicycle or by foot. Only 22 households are not only collecting Kanti but also mainly collecting raw materials of copper and tin. The workshops of bell-metal are facing trouble

due to want of raw materials and sales tax and octroi tax in transportation of Kanti.

The details regarding this matter can be seen in Table IV.10

Process of Manufacture

From the beginning to the end the process of manufacture of the bell-metal products requires sensitive and technical brain. To start with first collection of raw material is not an ordinary job. It takes much physical and mental power to collect the materials for manufacture of the products. It has already been described earlier how they collect the raw materials and source from where obtained.

In the workshop an artisan carefully takes the appropriate proportion of copper and tin (4:1) by weighing in an ordinary weighing instrument. Keeping in view the finished products and number of products, at the beginning the intelligent artisan measures these two elements cautiously to form the alloy. Thereafter both copper and tin are put in Koi which is heated in melting hearth.

The melting hearth is a unique and important requirement in the processing of manufacture of bell-metal products. Though it is not a tool but is a heart of the processing. This melting hearth (fig. 9) transfers the quality of an element to another quality of a compound. This melting hearth can produce the heat about 1500 degree C with the help of the leather bellow or mechanical rotary blower (fig. 9) and charcoal. This melting hearth is generally placed below the ground level upto 50 cm. At the top of this furnace the Koi made up of earth is placed around which charcoal is covered. The copper and tin basic metals are kept inside the Koi and process of heating is carried on. As the melting point of copper and tin is less than 1100 degree C it is easy for the furnace to take care of melting the alloy. Till this process one man power Bhatia (blower operator) is generally employed. When melting after heating started another skilled artisan is required to test the alloy with the help of Sal Ankuri (fig. 11) by rotating the molten material in the heated Koi by visual metallurgical test (Jyoti Dekha) Sal Ankuri is iron stick of length of about 20 cm fitted with wooden handle. At the end of the Sal Ankuri it is bent slightly to test copper and tin alloy. To form the best alloy skilled artisans also test it by bringing a small melted quantity of the alloy from the Koi through ladle placing it on a stone anvil and beating it with a small hammer. After beating if it is seen that the compound alloy is separated into pieces the alloy is tested as not good. If it is flatened in place of separated into pieces the alloy is good one to prepare bell-metal products. This process is known as Chanakha or sample metallurgical test. Mostly the master craftsman is engaged in this type of test who has sufficient knowledge in processing of bell-metal handicraft products.

Casting or moulding

After the testing of the alloy if it is found suitable for preparation of the products the artisan makes ready Achhu for casting or moulding. The Achhu is prepared in different size keeping in view the quantity of the melted alloy is to be poured in it for different products. A small Koi called Dhal Koi is used for transporting the melted alloy from the Koi to pour in to Achhu which is previously sterilised with mobil oil. The molten alloy is allowed to remain sometime inside the Achhu to be cold. During the process of cooling Tashu (rice head) is used after pouring the molten alloy. The rice head makes processing of cooling slow of the alloy. This cooled alloy is called Ghati.

Table IV.10

Raw materials used for the manufacture of diffrent items of Craft classified by area from where procured by mode of Transport and problem faced

Name of material used for making the handicraft items	Number of house-holds using the raw material	Number of households which have procured raw material from	
		Locally Kanti (old utensils) from the consumer and brought to the site by	Co-operative Society and brought to the site by
		Bicycle	Foot	Foot
1	2	3	4	5
1. Kanti (Old Utensils)	25	5	10	4
2. Copper and Tin	22	-	10	7

Table IV.10 Concld.

Number of households which have procured raw material from				No. of households reported having faced problem for procuring the raw material	
Local business man or consumer or Co-operative society and brought to the site by		Calcutta and brought to the site by		Scarcity of raw material	Scarcity of raw material and harassment by police, salestax, octroi tax in transport of Kanti
Bicycle	Foot	Train and Bicycle	Train and Truck		
6	7	8	9	10	11
1	3	1	1	12	13
-	2	3	-	18	4

N.B.:- 6 households have no workshop as their own and working in other workshop.

Beating Process

This process requires more skill to give the ingot proper shape and size. For this different size of hammers (fig. 10 & 11), Pincers (fig. 10), Pathara (Stone anvil) (figure 11) iron anvil etc. are required. This beating process also requires simultaneously heating and beating. This beating process is divided into five parts such as (1) Chaki or Balha (2) Ganta (3) Kantika (4) Fulan and (5) Matha.

Chaki and Balha

At the first stage the craftsman Garha (the master craftsman) places the cold alloy over the melting hearth. When this alloy (ingot or billet) is heated near about 500 degree C (fig.8) the main craftsman takes out the billet through pincers (Sandasi) left and right (fig. 10) and put over the stone anvil (beating place). Generally two to three hammer men who are previously ready to beat the heated billet, beat it simultaneously one after another as per direction of Garha to form the Chaki in case of Thali and Chaki and Balha in case of Kansa (fig. 13). In the beating process the first hammer man or the front man to Garha is called Kora whereas the other hammer men are Pasia (left Pasia and right Pasia) and Bhatia (blower man). Very often the Bhatia hit the ingot from left hand side of the Garha (fig. 12).

Ganta

This alloy of Chaki is again hit by more number of hammer men to bring it a proper size of a plate with desired diameter. It is needless to mention here that heating and beating is the simultaneous process for proper shape and size. In this process the alloy takes concave shape.

Kantika

This is a process in which more number of Ganta pieces are placed one over another and hold it carefully by master craftsman over stone anvil and beated by the hammer men to form a number of pieces of concave size. Among these hammer men the front man of the master craftsman (Garha who holds the alloy) is called Kora. Very often the Bhatia (blower man) hits the pieces of Kantika from left hand side of the master craftsman. There are other hammermen called Pasia (fig. 12).

Fulan

This is a process of beating through which the metal is raised to certain height over the circumference of the circular base of the products. Under this process Kora hammer-man takes the leading part in hammering to bring the proper shape either Thali, Thalia, Kansa or Tatia and so on by beating carefully as per the gesture and posture indicated by the master craftsman. This indication is well known to Kora from the holding of the Kantika by Garha. In this process generally Garha and Kora only are engaged to get desired shape of the product. In some cases when Pasia and Bhatia also join for hammering.

Matha is a process of smoothening the outer surface of the product. A mild hitting is necessary as and when required to bring the uniformity of the outer surface.

This type of hitting is made outside the stone anvil but over iron anvil (called Nehi) (fig. 11). After this process of manufacture of any metal product no further heating and beating process is necessary.

Scrapping

For this process a wooden stick of about 30 cm long, iron Nihan (scrapper) of length of same size and an artisan called scrapper man are necessary. After the processing of Matha of the product a skilled artisan is to see whether any portion of the body of the product is unusually thick enough then and there he decides the necessity of processing of scrapping. The scrapper man is to remove the unusual materials from the thicked portion of the material by scrapping either from outer surface or from the inner surface of the product.

Filing

This is a process by which the edge of the product is to be smoothened by an artisan by a file. Under this process unwanted rough portion is removed from the edge of the product. For filing process each artisan performs the job independently.

Finishing or polishing

For this process Kunda or hand driven wooden lathe is mainly required by the artisan (fig. 14). Under this process the product is to be fixed on Kunda after mild heating with the help of a paste made up of Jaoo (Lac). Thereafter Kunda is allowed to rotate along its axis as a result of which the product of bell-metal is also rotated along with the Kunda. This rotating process makes the article smoothing and the artisan takes the opportunity to put a desired scrap uniformly on the product with the help of a scrapper (fig. 14). In this process two artisans (scrapper man and Kunda operator) are employed. Sometimes a beautiful design is also made by the help of linear curve through this process.

Engraving of Designs

To attract the consumers and the users the beautiful engraving of designs is made by the skilled artisans on the surface of the items of bell-metal product such as floral, animal motifs, scenery etc. by a drill or scrapper.

Designs

There are many designs adopted by the artisans of bell-metal products. Among those designs some of them are scenery type indicating beautiful flowers, leaves and flowers of creeping plants shown in egg type plate (fig. 3). Petals of flowers shown in double edged Baleshwari, star mark on the plate which represent the symbolical developments as indicated in Veda. The petals of lotus flower, the design of peacock, wave of water, the photo of national leaders like Mahatma Gandhi, Subhas Bose, Jawaharlal Nehru, Indira Gandhi.

From these types of designs it can be ascertained that the artisans of bell-metal can present any type of design starting from material object to humanbeing through evolutionary beings such as plants, flowers, beasts, birds etc. The type of traditional designs are being adopted from generations, no new design is left out for the present artisans.

It is seen from the survey that ladies are devoting much time for such type of designs than gents. It is seen that majority of the traditional designs are adopted by the households for twenty years and above. The shape of the plate is newly introduced which is of egg type and chinese plate type for last ten years by one household only.

Out of 47 households manufacturing different bell metal-items 30 are engraving one or more designs. Further of this 30 households engraving different designs 12 are engraving floral, 10 are engraving floral and animal motifs, 3 are engraving animal motifs, two are engraving Bhanar and one each engraving Scenery; Laheri, Madhupuri and Baleswari and egg type or Chinese type desings.

Table IV. 11 shows details of designs used in the manufacture of handicraft items classified by persons who prepared the design, his relationship with the head of household, period when introduced and educational level of head of household.

Table IV. 11

Design used in the manufacture of handicraft items classified by the person who prepared the design, his relationship with the head of the household, period when introduced and educational level of the head of the household

Educational Level of the of the head of the household	Name of design (Floral Scenery, animal motif, hunting scenery)	No. of households making use of the design	Number of households reporting design as traditional and in use since				
			10+ years and prepared by	20+ years and prepared by			
			Self	Self	Brother	Wife	Unrelated
1	2	3	4	5	6	7	8
Illiterate	1. Floral	1	-	1	-	-	-
	2. Floral	2	-	2	-	-	-
Literate without	1. Bihar	2	-	2	-	-	-
Educational	2. Floral	1	-	1	-	-	-
Level	3. Floral and animal motifs	4	-	3	-	-	1
Primary or	1. Floral	9	-	5	1	1	2
Junior basic	2. Animal motifs	2	-	2	-	-	-
	3. Floral and animal motifs	3	-	3	-	-	-
	4. Lahari, Madhuprui, Baleswari	1	-	1	-	-	-
	5. Egg Type, Chinese plate type	1	1	-	-	-	-

Table IV.11 Concld.

1	2	3	4	5	6	7	8
Middle	1. Floral	1	-	1	-	-	-
	2. Animal motif	1	-	1	-	-	-
	3. Scenery	1	-	1	-	-	-
Matric	1. Floral and animal motifs	1	-	-	-	-	1
Total	1. Floral	12	-	8	1	1	2
	2. Floral and animal motifs	10	-	8	-	-	2
	3. Animal motifs	3	-	3	-	-	-
	4. Bhanar	2	-	2	-	-	-
	5. Scenery	1	-	1	-	-	-
	6. Laheri, Madhupuri and Baleswari	1	-	1	-	-	-
	7. Egg type, Chinese plate type	1	-	-	-	-	-
Grand Total		30	1	23	1	1	4

CHAPTER V

MARKETING - BELL-METEL

Marketing plays an important role in the development and survival of the industry of any kind whether small scale, large scale or cottage industry. If a proper marketing organisation does not exist, adequate profit would not accrue on account of weak bargaining power of the producers and the existing of the cut throat competition among the producers.

The actual producers do not generally undertake the marketing of the produce. Majority of the artisans are producing the articles in accordance with the order of the dealers. The dealer generally indicates the weight and design of the article which are in demand in the locality as well as outside.

Generally dealers, who finance the industry, control the markets and carry away the major bulk of profit. Poor craftsmen supply the desired articles to the small dealers taking a nominal labour charges. But dealer in his turn sell those in local store and in distant fairs for better profit.

The cooperative societies sometimes receive order from the departmental stores for display and sale in exhibitions.

Since these articles are mainly of social ceremonial and domestic use the rate of articles must be competitive with that of stainless steel product which are comparatively less costly.

Table V.1 shows the distribution of 53 households by handicraft centre and by item of bell-metal products manufactured.

Table V.1

Distribution of households by name of handicraft items manufactured (Survey year 1987)

Items of bell-metal products manufactured	Number of selected households manufacturing in handicraft centres		
	Bhatimunda	Pratap Sasan	Kantilo
1	2	3	4
Thali	1	7	-
Thalia	-	3	2
Kansa (Bela)	-	2	7
Tatia (Bati, Big gina)	-	2	2

Table V.1 Concld.

1	2	3	4
Thali and Thalia	2	2	6
Thali, Thalia, Tatia, Parasa, Kansa, Gina Ghanta, Jhanja, Gini	1	-	-
Kansa and Parasa	1	-	-
Kansa, Tatia, Parasuni, Ghanta, Gini Jhanja, Thalia	1	-	-
Kansa, Tatia, Parasa, Bell, Ghanta Jhanja, Kubuji	7*	-	-
Ghanta	-	1	-
Thalia and Tatia	-	1	-
Kansa and Tatia	-	1	-
Bela and Tatia	-	1	1
Bela, Tatia and Jhanja	-	-	1
Bela, Thalia and Tatia	-	-	1
Total	13*	20	20

(Sample data)

* Includes six heads of households of Bhatimunda Village who are engaged as Crafts men in other's workshop (Maguni Sahu's workshop etc.)

Table V.1 indicates that out of 13 selected households of Bhatimunda village, 7 have own workshops and other six households are engaged in bell-metal handicraft in other's workshop. It is interesting to note that out of 53 households under survey,only eight households, seven from Pratap Sasan (Balakati) and one from Bhatimunda are engaged to manufacture only one item Thali of bell-metal and another five households three from Pratap Sasan, two from Kantilo are engaged to prepare Thalia only. Kansa (Bela), a bell-metal product is manufactured by nine households, seven from Kantilo and two from Pratap Sasan. Similarly,Tatia (Bati or big Gina) is also manufactured by four households two each from Kantilo and Pratap Sasan. Ghanta is a product of bell-metal which is prepared by only one household resided in the village Pratap Sasan. The rest 20 households are preparing more than one item of bell-metal products of which ten households are preparing Thali and its small size product called Thalia. Details on the matter may be seen from table V.1.

It is needless to say that the weight of Bell-metal articles is heavier than that of stainless steel products resulting the higher cost.

Further no catalogue containing photographs and prices of articles has been prepared so far to save the customers from the fraud tactics opted by the traders.

During the festival and marriage season the sale of the product goes up. It is customary that a large quantity of the Bell-metal utensils are given to a bride when she goes to her in-laws house after the marriage.

Similarly,during festival occasions like Durga Puja and Bali Jatra of Cuttack and Rath Jatra not only at Puri but also at different places of different districts the people from inside and outside of the state gathered to witness the festivals and purchase the articles of Bell-metal for their ceremonial and domestic use.

Name of different handicraft articles manufactured in area of operation i.e. in villages at Bhatimunda and Pratap Sasan(Balakati) and Census town Kantilo are locally called as Kansa, Tatia, Parasa, Ghanta, Bell, Jhanja, Kubuji, Thalia, Thali, Gina and Gini. As stated earlier out of number of units in the state where the Bell-metal articles are manufactured, this survey is limited to only three centres. Further only 53 households are selected from these three centres for the survey. Of these 53 households 20 households each are from Kantilo census town and Pratap Sasan (Balakati) village and 13 households from village Bhatimunda. Table V.2 describes relating to the disposal of finished products. These articles are manufactured only by Kansari caste under Hindu religion.

Table V.2

Details relating to the disposal of finished products, number of households manufacturing handicraft items classified by quantity produced, purpose for which produced and by religion, Caste/Tribe/Community of the Head of the household

Religion Caste/Tribe/ Community of the head of the household		Number of handicraft items manufactured	No. of household manufacturing the items	Number of households reported having produced	
				500 or less (per annum)	501 + (per annum)
Religion	Caste/ Tribe/ Community			Entirely for the use (Domestic or ceremonial) of other and sold against	Entirely for the use (Domestic or ceremonial) of other and sold against
				Cash	Cash
1	2	3	4	5	6
Hindu	Kansari	Kansa	18	5	13
		Tatia	12	4	8
		Parasa	4	2	2
		Ghanta	4	3	1
		Bell	2	2	-
		Jhanja	4	3	1

Table V.2 Concld.

1	2	3	4	5	6
		Kubuji	1	1	-
		Gini	2	2	-
		Thalia	19	7	12
		Thali	20	5	15
		Gina	1	1	-

Note :- The households manufacturing more than one item of bell-metal product have been accounted for more than once.

Table V.2 exhibits that there are eleven items of bell-metal products produced or manufactured by 53 households in 47 workshops under survey. Those eleven products are Thali, Thalia, Kansa, Tatia, Parasa, Jhanja, Bell, Ghanta(Gong), Gini, Kubuji and Gina. It is seen from the table that the maximum number of households numbering 20 are preparing Thali of which 15 households are manufacturing more than 500 per annum. The rest five households are manufacturing the same less than five hundred per annum. Thalia is the next bell- metal product manufactured by 19 households of which 12 households exceeds the manufacturing number 500 per annum followed by Kansa manufactured by 18 households, 13 of which manufactured more than 500 per annum. The items like Gina, Gini Kubuji and Bell are manufactured less than 500 per annum by limited number of households. The rest four items Tatia, Parasa, Ghanta and Jhanja are manufactured by 12, four and four households respectively. Further details about these items classified by quantity may be seen from the table V.2.

The products of the bell-metal are so costly, and it is very rare to think to sell them either in daily market or in Hat in side or outside the village. It has its own prestige to be sold either in its show room of co-operative society or middleman or at the house of the artisan. However, it is seen that these products are taken for the sale to big Mellas like Bali Jatra at Cuttack, Rath Jatra at Puri and Magha Mella at Kantilo which are held yearly once. The sale of these products is also limited as because its use is also at present restricted only for ceremonial, social and religious uses rather than abundant domestic uses as was in preindependent era, just before advent of aluminium and steel utensils. It is seen at the time of survey that only the selected artisans of Kantilo are sending their manufactured items like Kansa, Tatia, Jhanja, Thalia and Thali to Magha Mella held in the same village once in a year. The artisans of other villages are not in favour to send these products to any other Mella so far as the sample households are concerned. Some of the other households beyond the sample take their finished products to Mellas like Ratha Jatra at Puri, Bali Jatra at Cuttack etc.

Table V.3 presents the number of craft practising households disposing of their finished products, selling direct to the consumers, middle men and Co-operative Societies by quantity for each of the finished products of bell-metal.

Table V.3

Households classified by Quantity of finished Products Sold and Channels through which it is disposed off by Proportion

Name of finished Products produced	Number of house-holds manufac-turing the item	Quantity sold in households in broad ranges		Number of households disposed off the finished products through					
				Direct to the Consumer in		Middlemen in		Co-operative Society in	
		Broad ranges	No. of house-holds	Pro-portion 100%	Pro-portion 50%	Pro-portion 100%	Pro-portion 50%	Pro-portion 100%	Pro-portion 50%
1	2	3	4	5	6	7	8	9	10
Bela/Kansa	18	500 or less	5	1	1	3	1	-	-
		501+	13	-	3	7	4	1	3
Parasa	4	500 or less	2	1	-	1	-	-	-
		501+	2	-	-	2	-	-	-
Tatia/Bati	12	500 or less	4	1	-	2	1	-	1
		501+	8	-	2	5	1	1	1
Gina	1	500 or less	1	-	-	-	1	-	1
Thali	20	500 or less	5	2	1	-	2	1	1
		501+	15	-	1	7	3	5	2
Thalia	19	500 or less	7	2	1	4	-	-	1
		501+	12	-	2	5	3	4	1
Bell	2	500 or less	2	1	-	1	-	-	-
Gini	2	500 or less	2	1	-	1	-	-	-
Ghanta	4	500 or less	3	1	-	2	-	-	-
		501+	1	-	-	-	-	1	-
Jhanja	4	500 or less	3	1	-	2	-	-	-
		501+	1	-	-	1	-	-	-
Kubuji	1	500 or less	1	-	-	1	-	-	-

As discussed earlier it is known that eleven types of bell-metal products are manufactured by 53 households in 47 workshops under survey. As in 26 households more than one item of bell-metal products are manufactured, the number of those households are repeated against each item of bell- metal products for which 87 households are accounted for eleven items only. Table V.3 indicates that out of 87 households eleven households disposed off their finished products directly to the consumers at their door way, 44 households through the middle men, 13 households through Co-operative Societies and rest 19 households have disposed off their finished products proportionwise either directly consumers, middleman or Co-operative Society directly. In this regard detail information on each item of bell-metal products may be seen from the table V.3.

Table V.4 aims at to find out terms and conditions and margin of profit relating to sale of finished products through different channels by educational level of the head of household.

Table V.4

Terms and conditions and margin of profit related to sale of finished products through different channels classified by educational level of the head of the household

Educational Level of the head of the Household	Name of Handicraft Items	Number of household manufacturing handicraft items	Number of households & sale of items through				
			Directly to the Consumer at	Middle men on terms and Conditions	Co-operative society on Contract Basis Margin of Profit or		Both middlemen, Co-operative Society and directly to consumer on Contract basis margin of profit or Labour charge Rs.20 per kg and Rs.2 per kg extra charges when sold to consumer directly
			The margin of Profit only Labour charge Rs. 17-25	On Contract basis Margin of profit or Labour charge per Kg. Rs. 17-25	Labour charge per Kg. Rs.17-25	Labour charge for manufacturing Rs.17 for design Rs.10 per Kg.	
1	2	3	4	5	6	7	8
Illiterate (Head of 3 households)	Thali	1	-	-	-	-	1
	Thalia	2	-	1	-	1	-
	Bela/Kansa	1	-	-	-	-	1
	Tatia	1	-	-	-	-	1
Literate without educational level (20 head of households)	Bela/Kansa	6	1	3	-	-	2
	Tatia	5	1	3	1	-	-
	Parasa	3	1	2	-	-	-
	Gong (Ghanta)	3	1	1	1	-	-
	Bell	1	1	-	-	-	-

Table V.4 Concld.

1	2	3	4	5	6	7	8
	Jhanja	3	1	2	-	-	-
	Gini	2	1	1	-	-	-
	Thalia	5	1	1	2	-	1
	Thali	6	1	-	3	-	2
Primary (26	Thali	11	-	7	2	-	2
head of	Bell	1	-	1	-	-	-
households)	Thalia	11	-	7	1	-	3
	Jhanja	1	-	1	-	-	-
	Bela/Kansa	10	-	6	1	-	3
	Kubuji	1	-	1	-	-	-
	Tatia	6	-	4	-	-	2
	Parasa	1	-	1	-	-	-
	Gina	1	-	-	-	-	1
	Ghanta	1	-	1	-	-	-
Middle (3	Thali	1	1	-	-	-	-
head of	Thalia	1	1	-	-	-	-
households)	Bela/Kansa	1	-	1	-	-	-
Matric (One head of household)	Thali	1	-	-	1	-	-

It is noticed from table V.4 that highly qualified artisans are not engaged in bell-metal products. The highest qualified among the artisans is one household having qualification of matriculation who is engaged to manufacture only Thali and disposed off them proportionately among middle men Co-operative Society and direct to consumers as and when he feels to receive better benefits. There are three households two at Bhatimunda and one at Kantilo who have passed middle school examination. They prepared also Thali along with Thalia and Kansa. They have to dispose of those finished products through middlemen with the terms and conditions on contract basis with Rs.17/- to Rs.25/- per kg. as labour charge. There are 26 households with qualification of Primary or Junior basic who are preparing all the items of bell-metal products except Gini. If it will be considered itemwise 44 households are coming to the picture engaged in different items with repetition. 16 households are engaged for each Thali and Thalia, ten for Kansa, seven for Tatia three each for Parasa and Jhanja, two for Ghanta and one each for Bell, Gini and Kubuji. Though all the artisans are with educational level of primary they do not like to dispose their articles directly to the consumer. Majority of them like to dispose of their finished products by the channel of middle men on contract basis as discussed earlier and a few of them numbering to four households dispose of their

finished articles of Thali and Thalia through the channel of Co-operative Society taking the labour charge @ Rs.17/- to Rs.25/- per kg. only. As many as 11 households under this educational level of primary have disposed of their finished articles with proportion among middle men, co-operative societies and directly to the consumers.

There are 20 artisans who are enumerated as literate without educational level at the time of survey. Those artisans are also manufacturing all the items except Gina and Ghanta and dispose of them to the middlemen with the same terms and conditions as discussed earlier. A very less percentage of those artisans are selling their products to Co-operative Society taking their nominal charge @ Rs. 17/- to Rs.25/-per kg. Only eight households of them are disposing of their articles on proportion basis to middlemen, Co-operative Society and directly to the consumers with labour charges @ Rs.17/- to Rs.25/- per kg.

Out of all the artisans under survey only three are illiterates recorded in Pratap Sasan. They are manufacturing only Thali, Thalia, Kansa and Tatia which are generally used only for households daily use for serving food. They disposed off Thali and Thalia through the channel of Co-operative Society taking the labour charge @ Rs.17/- to Rs.25/- per kg. and Rs. 10/- per kg for design. Here it is earmarked that out of all artisans only these two know the technique of design which is appreciated by the Co-operative Society. Other two items Kansa and Tatia are sold proportionately through the channel of middlemen, Co-operative Society and directly to the consumer with margin of profit taking Rs.20/-as labour charge per kg. In case of consumer, extra two rupees per kg. is charged for the articles. Thus it is seen that illiterate artisans are not interested to dispose of their finished product directly either to the consumers or middle men exclusively.

Further table V.5 describes the number of households by item of Bell-metal products with the educational level of head of the household by quantity of items sold locally exported.

Table V.5

Particulars of finished products sold locally exported classified by educational level of the head of the household (Consolidated).

Educational level of the Head of the household	Name of handicraft items	Number of households manufacturing the items	Quantity sold in broad ranges		Number of households reported having sold finished products		
			Broad ranges	Number of households	Locally		Exported
					100%	50% or less	20% or less
1	2	3	4	5	6	7	8
Illiterate	Thali	1	501 +	1	1	-	-
	Thalia	2	501 +	2	2	-	-
	Bela/Kansa	1	501 +	1	1	-	-
	Tatia	1	501 +	1	1	-	-
Literate without educational level	Bela/Kansa	6	Less than 500	2	2	-	-
			501 +	4	4	-	-
	Tatia	5	Less than 500	2	2	-	-
			501 +	3	3	-	-
	Parasa	3	Less than 500	2	2	-	-
			501 +	1	1	-	-
	Gong (Ghanta)	3	Less than 500	2	2	-	-
			501 +	1	1	-	-
	Bell	1	Less than 500	1	1	-	-
	Jhanja	3	Less than 500	2	2	-	-
			501 +	1	1	-	-
	Gini	2	Less than 500	2	2	-	-
	Thalia	5	Less than 500	2	2	-	-
			501 +	3	3	-	-
	Thali	6	Less than 500	2	2	-	-
			501 +	4	4	-	-
Primary	Bela/Kansa	10	Less than 500	3	3	-	-
			501 +	7	7	-	-
	Tatia	6	Less than 500	2	2	-	-
			501 +	4	4	-	-
	Parasa	1	501 +	1	1	-	-
	Gong (Ghanta)	1	Less than 500	1	1	-	-
	Bell	1	Less than 500	1	1	-	-
	Jhanja	1	Less than 500	1	1	-	-
	Kubuji	1	Less than 500	1	1	-	-

Table V.5 Concld.

1	2	3	4	5	6	7	8
	Thali	11	Less than 500	2	2	-	-
			501 +	9	8	1	1
	Thalia	11	Less than 500	4	3	1	1
			501 +	7	7		
	Gina	1	Less than 500	1	1		
Middle	Thali	1	Less than 500	1	1		
	Thalia	1	Less than 500	1	1		
	Bela/Kansa	1	501 +	1	1		
Matric	Thali	1	501 +	1	1		

The table V.5 shows all the items of Bell-metal products are sold locally by all households except the item Thali and Thalia. It is seen further that the artisans of 26 households having qualification of primary or junior basic, 17 belong to Kantilo, 7 to Pratap Sasan and 2 to Bhatimunda village under survey. Out of these 17 artisans of Kantilo only one of them exported Thali and Thalia outside the State. It is ascertained at the time of survey in the field that there are households other than the households under survey who are exporting their finished products of Bell-metal even to outside the country.

Table V.6 describes the particulars of households who have reported to meet the demands of finished products and those who have not met the demands with the reason thereof along with their level of education or educational level of the head of households.

Table V.6

Particulars of Households which reported to have met the demands for finished products and those which have not met the demands with reasons thereof classified by educational level of the head of the household

Educational Level of the Head of the Household	Name of handicraft items	Number of households manufacturing items	Number of households reported to have met the demand for finished products			Number of households to have not met the demand for finished products	
			Local demand to the extend		Outside demands to the extend	Local demand due to	Outside demand due to
			50 % or less	50 % to 100 %	50 % or Less	Non availability of raw materials & shortage of money	Non-availability of raw materials & shortage of money
1	2	3	4	5	6	7	8
Illiterate	Thali	1	1	-	-	1	-
	Thalia	2	2	-	-	2	-
	Bela/Kansa	1	1	-	-	1	-
	Tatia	1	1	-	-	1	-
Literate	Bela/Kansa	6	6	-	-	6	-
without	Tatia	5	5	-	-	5	-
educational	Parasa	3	3	-	-	3	-
level	Gong (Ghanta)	3	3	-	-	3	
	Bell	1	1	-	-	1	-
	Jhanja	3	3	-	-	3	-
	Gini	2	2	-	-	2	-
	Thalia	5	5	-	-	5	-
	Thali	6	6	-	-	6	-
Primary or	Bela/Kansa	10	10	-	-	10	-
Junior Basic	Tatia	6	6	-	-	6	-
	Parasa	1	1	-	-	1	-
	Gong (Ghanta)	1	1	-	-	1	-
	Bell	1	1	-	-	1	-
	Jhanja	1	1	-	-	1	-
	Kubuji	1	1	-	-	1	-
	Thali	11	9	2	1	11	1

Table V.6 Concld.

1	2	3	4	5	6	7	8
	Thalia	11	8	3	1	11	-
	Gina	1	1	-	-	1	1
Middle	Thali	1	1	-	-	1	-
	Thalia	1	1	-	-	1	-
	Bela/Kansa	1	1	-	-	1	-
Matriculation and Higher Secondary	Thali	1	1	-	-	1	-

This table V.6 pointed out that the artisans of all educational level are able to meet 50 per cent demand of local people so far. Almost all have also reported at the time of survey that they are unable to meet the demand of finished products of local or outside due to non-availability of raw materials on one hand and their financial conditions on the other. It is interesting to record here that the artisans reported in the field about their difficulties in mathematical symbol "M^3". It means first "M" stands for money, second stands for metals and third stands for marketing.

It is observed that no artisans under the survey has reported any difficulty or problems to dispose of their finished products of bell-metal rather they have some problem in manufacture of the products because of non-availability of raw material and want of funds.

CHAPTER VI

CRAFTS AND EMPLOYMENT

The roll of handicraft in the economy of rural sector is felt very much next to agriculture. The artisens practising any craft in the rural or urban area not only choose his own employment but at times employ others. The practice of bell-metal craft in rural areas is traditionally a household industry. In almost all the workshops, in addition to family workers, hired workers are employed. Generally, a workshop manufacturing bell-metal products requires minimum two skilled workers and one or more unskilled workers. In boom season, at times in a well-to-do bell-metal workshop ten to twelve skilled and unskilled workers are employed. In the past specially in the pre-independence period practice of bell-metal craft was an alluring business in rural areas. The owner of the workshop was the master artisan who without disclosing his trade secret and keeping the craft fidelity was employing skilled and/or unskilled hired workers to manufacture the desired articles. In most of the cases hired workers were brought from the same community of Kansari. But now-a-days hired workers of other community are brought as seen at Pratap Sasan and Kantilo during the survey of 1987. The bell-metal products have resale value. At present, cost of new products per kg. varies from Rs.120/- to Rs.150/- as against cost of old products (even broken ones cost per kg. varying from Rs.90/- to Rs.100/). In spite of advent of aluminium, stainless steel utensils and other accessories the demand of bell-metal product still exists. If it finds some scope it will be a good source of employment for rural people.

Origin of the Craft

Traditional rural based craft of bell-metal products are being manufactured in these three surveyed units-Bhatimunda, Pratap Sasan and Kantilo since long before twentieth century. During the survey of 1987 in spite of several probing questions the time of origin of the craft could not be ascertained from the old and experienced artisans. Only answer was heard from them that they are practising it traditionally from generation to generation before centuries ago. Generally there is no reliance in human memories on the matter which relates to the event of half a century back. However, an attempt is made to collect the information relating to the past years. Here the table Vi.1 gives details of the approximate number of households and number of persons engaged in the bell-metal handicraft before 1940, upto 1950, 1960, 1970, 1980 and at present i.e. 1987.

Table VI.1

Approximate number of households as well as Persons in the village engaged in the Craft

Name of the village selected	Before 1940		Up to 1950		Up to 1960		Up to 1970		Up to 1980		At present 1987	
	No.of house-holds	No. of work-ers	No. of house-holds	No. of work-ers	No.of house-holds	No.of work-ers	No.of house-holds	No.of work-ers	No.of house-holds	No.of work-ers	No.of house-holds	No.of work-ers
1	2	3	4	5	6	7	8	9	10	11	12	13
Bhatimunda	30	120	25	100	22	88	20	80	10	40	13	18
Pratap Sasan	60	180	70	350	80	160	90	180	100	200	119	200
Kantilo	95	155	85	174	100	200	104	208	77	231	116	232

Note :- Number of workers includes hired workers also.

Table VI.1 reveals that number of households and workers engaged in the craft are decreasing proportionately with the time in Bhatimunda village but this is seen in reverse way in the village Pratap Sasan since 1940. Whereas in Kantilo the number of workers engaged in the craft of bell-metal product is increasing only as time passed since 1940 but number of households involved in it varies in irregular manner.

It is ascertained from group discussions and also from all the households selected for canvassing that the practice of the craft in all the three centres was in existence sometime prior to the beginning of the present century.

It is ascertained from each of the head of the households under survey that more than ten households are fully engaged in production of the bell-metal product since 1940 and more than 20 workers are also exclusively associated with the production of the bell-metal in each of the craft centres.

The reason for slow increasing order of the number of households and that of workers in production of bell-metal items in village Pratap Sasan and Census Town Kantilo since 1940 is ascertained that due to the educational system prevailed now-a-days young energetic literate persons do not like freely to do the traditional work only for strenuous and hard physical labour. Besides raw materials are not easily available along with the funds and marketing facilities. It is already discussed that in the village Bhatimunda the participation of number of households and workers in this traditional craft is in decreasing order. The reason for such decreasing as recorded during the

survey of 1987 is non-availability of sufficient raw materials, funds, marketing facilities, harashment made by the government officials like police, octroi tax authority in transportation of old broken utensils of bell-metal (Kanti) and top competition in marketing of utensils of stainless steel, aluminium etc. The details regarding this matter is presented in the table VI.2.

Table VI.2

Reasons reported in households for variation in the number of households and persons engaged in the craft during last four decades classified in broad age group of the head of the household

Broad Age-group of the head of the household	Number of households engaged in the crafts	Number of households reported reasons for			
		No substantial increase in the number of households and persons engaged in the craft during last 4 decades	Decrease in the number of households and persons engaged in the craft during last four decades		
			Non-availability of sufficient raw materials, funds, and marketing facilities	Non-availiability of sufficient raw materials, funds and marketing facilities, Harashment due to Police and octroi authority in transportation of Kanti (Old utensils)	Non-availiability of raw materials and funds Competation due to Steel and Aluminium utensils, less labour Charge, Lack of marketing facilities
		Educated persons are disinterested for Practising this labourious craft. Non-availability of raw material and funds, less marketing facilities and competition due to factory-made other utensils and charge in consumer preference for Steel and Aluminium			
1	2	3	4	5	6
15 - 34	1	1	-	-	-
35 - 59	40	30	2	2	6
60 +	12	9	-	2	1
Total	53	40	2	4	7

Disintegration of the Craft

The main reason of disintegration of craft is the strenuous physical labour, less labour charge from the consumers and non-availability of aw materials. All 53 heads of households are asked regarding period of time since when they had felt the disintegration of the craft due to reasons noted above. Those information are recorded in table VI.3.

Table VI.3

Reasons reported by the Households for disintegration of the Craft classified by Period and Religion, Caste/Tribe/Community of the Head of the household

Religion	Caste/Tribe/ Community	Number of households engaged in the craft	Number of households reported about the disintegration of the Craft since		
			5 - 9 years due to	10 - 19 years due to	20 + years due to
			Non-availability of raw matrials, Hard labour and less labour charges	Non-availability of raw materials,Hard labour and less labour charges	Non-availability of raw materials, Hard labour and less labour charges
1	2	3	4	5	6
			Consolidated		
Hindu	Kansari	53	4	26	23
			Bhatimunda		
Hindu	Kansari	13	-	10	3
			Pratap Sasan		
Hindu	Kansari	20	2	6	12
			Kantilo		
Hindu	Kansari	20	2	10	8

Table VI.4 depicts that the period of disintegration of the craft is more than 20 years reported by 23 households, 10 to 19 years by 26 households and 5 to 9 years by only 4 households.

As regards educational level of the informants of the three illiterate artisans two reported the period of disintegration as since 20 or above years as against only one household reporting the period as since 10-19 years. Among 20 artisans who are literate without any educational level seven reported the corresponding period as since twenty or above years, as against 12 households reporting period 10-19 years and three households reporting period 5-9 years. Of the households passing middle school examination two reported the period as 20 or more years and one reported the period as 10-19 years. The only matriculate artisan of village Pratap Sasan stated that the craft faced disintegration since 20 or more years back. Details of this is presented in table VI.4

Table VI.4

Reasons reported by the households for Disintergation of Craft classified by Period and Educational Level of the Head of the Household

Educational Level of the head of the Household	Number of House-holds engaged in the craft	Number of Households reported about the disintergation of Craft, since		
		5 - 9 years due to	10 - 19 years due to	20+ years due to
		Non availibiity of raw materials, hard labour and less labour charge	Non availibility of raw materials, hard labour and less labour charges	Non availability of raw materials, hard labour and less labour charges
1	2	3	4	5
Illiterate	3	-	1	2
Literate without educational level	20	1	12	7
Primary	26	3	12	11
Middle	3	-	1	2
Matric	1	-	-	1
Total	53	4	26	23

Table VI.5 gives households reported about the rejuvenation methods to be adopted and the attempts made for rejuvenation classified by educational level of the head of the household.

Table VI.5

Households reported about the rejuvanation methods to be adopted and the attempts made for rejuvenation classified by educational level of the head of the household

Educational Level of the head of the husehold	Number of households engaged in the crafts	No. of households reported about the rejuvenation of crafts		No. of households reported about the attempts made to rejuvenate the craft			
		Craft cannot rejuvenated by any way and means	Craft can be rejuvenated by availability of raw materials, funds, marketing facilities	No attempt made to rejuvenate the craft	Attempts made to rejuvenate the craft		
					Financial assistance by bank and Co-operative Societies, Govt. loan	Issue of raw materials, funds and disposal of finished product by Co-operative Societies	Issue of controlled raw materials on 1960
1	2	3	4	5	6	7	8
Illiterate	3	-	3	-	-	3	-
Literate without educational level	20	-	20	9	1	8	2
Primary or Junior basic	26	-	26	2	2	20	2
Middle	3	-	3	1	1	1	-
Matriculation or Higher Secondary	1	-	1	-	-	1	-
Total	53	-	53	12	4	33	4

Table VI.5 shows that all the 53 selected households reported about the possibility of rejuvenation of bell-metal craft only by availability of raw materials, funds and marketing facilities.

The table also depicts that 12 households have not attempted to rejuvenate the craft. Among these 12 households heads of nine households are literates without any educational level, two have

passed primary level and one passed middle school examination. The other 4 households reported that some attempts have been taken up by them with the help of different agencies. Among these 41 households four reported that for rejuvenation of the craft, they have taken financial assistance of bank, Co-operative Societies and government loans. Whereas 33 households reported that they have tried to get raw materials, funds and disposal of finished products through co-operative Societies and exemption of sales tax and octroi tax. Lastly the rest four households adopted separate means i.e. issue of controlled raw materials during 1960 for use of bell-metal in order to rejuvenate the craft.

Craft position in the past

Survey revealed that all the 53 selected households of the three villages reported about the craft as source of livelihood in the past.

Table VI.6 shows that households wanting/not wanting to have their sons and daughters engaged in the craft with reasons thereof classified by educational level of head of household.

Table VI.6

Household wanting/not wanting to have their Sons/Daughters, engaged in the craft with Reasons thereof classified by Educational level of the Head of the Household

Educational Level of the Head of the Household	Number of house-holds enaged in the craft	Number of households wantihg to have their Sons/Daughters engaged in the same craft due to				Number of households not wanting to have their Sons/Daughters engaged in the same craft due to			
		To keep up the Tradition	It is a profitable Occupa-tion	It is an indepen-dent occupation and non-availabi-lity of alternative employment	It is a traditional occupa-tion and indepen-dent job	Hard-labour but less labour charge	For Higher Study	Non-ava-ilability of raw materials finance & marketing	The craft practice is not lucrative now
1	2	3	4	5	6	7	8	9	10
Illiterate	3	1	1	-	-	-	-	-	1
Literate without Educational level	20	6	-	4	1	4	1	3	1
Primary or Junior basic	26	1	1	4	6	7	3	2	2
Middle	3	1	-	-	-	1	-	1	-
Matriculation or Higher Secondary	1	-	-	1	-	-	-	-	-
Total	53	9	2	9	7	12	4	6	4

It is seen from table VI.6 that of the 53 selected households 27 households are in favour of the engagement of their sons and daughters in the bell-metal craft while other 26 households do not want to engage their sons and daughters in the craft.

Of the 27 households who desire to engage their children in the craft, nine have reported the reasons thereof is only to keep up the traditional occupation, two have reported that the occupation is profitable one, seven have reported that the job is independent one, the rest nine have reported that due to want of alternate employment this independent occupation is preferable.

Out of other 26 households who do not want their sons and daughters to be engaged in the bell-metal craft, 12 households reported the reasons thereof that the production of the craft requires strenuous hard labour with less labour charge, four households reported that the craft work now-a-days is not lucrative job, four house- holds reported that they want higher education of their children rather than practice of the craft for better prospective job and rest six households reported their unwillingness due to want of raw materials, finance and lack of marketing facilities.

Survey revealed that according to all the 53 informants of the three villages craftsmen are not looked down upon in the society in the area.

As per the selected informants younger generation of only 20 households are taking interest in the craft whereas those of 33 households are not taking interest in the craft.

Of the 20 households of first category 18 reported that their younger generation are taking interest in the craft as it is independent job and traditional occupation. The younger generation of other two households consider the craft as a profitable job.

Among the other 33 selected households whose younger generation are not taking interest in the craft, 25 reported that they do not want it due to non-availability of raw materials, finance and marketing facilities, besides it is difficult to manage the family with this traditional occupation. The rest eight households reported that their younger generation avoid the craft as because they get less labour charge, face non-availability of raw materials and get better prospective job due to higher education. Regarding this matter table VI.7 may be seen.

Table VI.7

Households reported about younger generation of their Community Taking/Not taking interest in the Craft with Reasons there of classified by Religion, Caste/Tribe/Community of the Head of the Household

Religion, Caste/ Tribe/Community of the head of the household		Number of hosue-holds engaged in the Craft	No. of house-holds repor-ted about the younger generation		No. of house-holds reported about younger generation tak-ing interest in the craft due to		Number of households reported about the younger generation not taking interest in the craft due to				
Religion	Caste/ Tribe/ Commu-nity		Taking interest in the Craft	Not taking interest in the craft	Indep-endent & Tra-ditional occu-pation	Profi-table job	Difficult to main tain the family for want of raw materials, finance and mar-keting facilities	Labou-rious job, non-availabi-lity of raw mat-erials, finance and market-ing	Less labour charges, non-ava-ilability of raw materials	Less labour char-ges	Higher educated people get better job than the Craft
1	2	3	4	5	6	7	8	9	10	11	12
					Consolidated						
Hindu	Kansari	53	20	33	18	2	14	11	3	2	3
					Bhatimunda						
Hindu	Kansari	13	3	10	2	1	3	2	3	1	1
					Pratap Sasan						
Hindu	Kansari	20	14	6	13	1	3	-	-	1	2
					Kantilo						
Hindu	Kansari	20	3	17	3	-	8	9	-	-	-

Compulsion or Motivation to take up the Craft

Among all the 53 surveyed households belonging to Kansari community of Hindu religion three are taking up the craft for less than five years. Of these two are motivated by this traditional occupation and one is compelled to do so because of non-availability of other job. The only one household is taking up the craft since 5-9 years being motivated by this traditional occupation. Similar is the case of five households taking up the craft since 10 to 19 years. Of the rest 44 households taking up the craft for last 20 years or more 41 (93.18%) do so being motivated by traditional occupation. Only three households reported having been motivated to take up the craft because of independent profitable traditional occupation and suitable traditional occupation for less educated persons.

Table VI.8 may be seen to know details of these matters.

Table VI.8

Households reported circumstances which compelled/motivated them to take up the Occupation (Craft) with period engaged in the Craft classified by Religion, Caste/Tribe/Community of the Head of the household

Religion, Caste/ Tribe/Community of the head of the household		Number of house-holds engaged in the craft	Number of households under compulsion or motivation taking up the craft since								
			Less than 5 years		5 - 9 years	10 - 19 years	20 + years				
Religion	Caste/ Tribe/ Commu-nity		Tradi-tional occu-pation	Non-availa-bility of other job	Traditi-onal occup-ation	Traditi-onal occup-ation	Traditi-onal occup-ation	As it is a traditional individual work	As it is a traditional Indepen-dent and Profita-ble work	As unedu-cated they accepted this tradi-tional & independent occupation	
1	2	3	4	5	6	7	8	9	10	11	
					Total						
Hindu	Kansari	53	2	1	1	5	41	1	1	1	
					Bhatimunda						
Hindu	Kansari	13	1	-	-	2	10	-	-	-	
					Pratap Sasan						
Hindu	Kansari	20	1	1	1	3	14	-	-	-	
					Kantilo						
Hindu	Kansari	20	-	-	-	-	17	1	1	1	

Traditional Association of the Craft

Survey revealed that of the 53 selected households 50 reported that they are associated traditionally with the craft for last three generations whereas the other three do so for last two generations.

As per the informants during the survey 40 households reported their satisfaction with the craft as against only 13 households who expressed their dissatisfaction for the same. Of the 40 households satisfied with the craft 22 feel so, as it is an independent traditional occupation, five households whose heads are literates without any educational level are satisfied as because this is their traditional occupation suitable to their qualification. Other 13 households expressed that they are satisfied with the parental occupation as because there is no other suitable job for them.

In this connection details are given in table VI.9.

Table VI.9

Households reported having Satisfaction/Dissatisfaction with the occupation (craft) with Reasons thereof classified by Educational level of the Head of the Household

Educational Level of the head of the household	No. of households engaged in the Craft	Number of households reported their satisfaction with the occupation due to			Number of households reported their dissatisfaction with the occupation due to			
		Traditional and independent	No other alternative as per qualification	Traditional occupation and suit to qualification	Want of raw materials, finance and lack of marketing facility	Want of raw materials, finance, marketing and less labour charges	Less labour charges in comparison to labourious work	Demand of finished products decreased
1	2	3	4	5	6	7	8	9
Illiterate	3	2	-	-	-	-	1	-
Literate without Educational level	20	6	7	5	-	2	-	-
Primary	26	13	5	-	6	-	1	1
Middle	3	1	1	-	1	-	-	-
Matric	1	-		-	-	-	1	-
Total	53	22	13	5	7	2	3	1

Future Plan of the Craftsmen

Survey of 53 households revealed that 40 households are satisfied with the craft and they do not intend to leave their present occupation. Of the 13 dissatisfied households five are interested to leave the occupation. Those five households having primary education, were unable to report their future plan although they intend to leave the traditional occupation.

Craft and Unemployment

It is ascertained during the survey of 1987 that only three persons-two from Kantilo and one from Bhatimunda are found as unemployed.

At the village Bhatimunda one youngman of 21 years old who is the brother of a head of household of artisan family and has received training on manufacture of bell-metal products is unemployed for last 3 to 5 years and registered his name in employment exchange. Similarly at village Kantilo two unemployed youngmen - one aged 22 years and another aged 25 years are related as son to the head of two households. Among these two unemployed persons of Kantilo educational level of one is middle school pass and that of the other is graduate and above. They have no training or experience in the craft, and are unemployed for last 1-2 years. Only the degree holder unemployed has registered his name in emloyment exchange and not the other who may adopt his family traditional occupation in late.

Craftsman not practising the Craft

Coming to the information collected from 15 Kansari households (five each in three centres) who are not practising the bell-metal craft now, it is seen that nine households gave up the occupation for last 20 years or more, five gave up for last 10-19 years and the last one gave up the occupation for last 5-9 years. Of the nine households giving up the craft practice for more than 19 years, four do so due to non-availability of raw materials, three because of want of craft training and rest two because of low income from the craft and posing problems to maintain family. Among five households giving up the occupation since 10 to 19 years three do so because of non-availability of raw materials and one each for better government service and low income from the craft. Only one household gave up the craft since 5 to 9 years due to non-availability of raw materials. Such information are given in table VI.10.

Table VI.10

Households reported Reasons for giving up the Craft classified by Sex, Religion and Caste/Tribe/Community of the head of the household

Religion, Caste/ Tribe/Community of the head of the household		Sex of head of the house-hold (M/F)	No. of house-holds	Number of households having given up the Craft since						
				5 - 9 years	10 - 19 years due to			20 + years due to		
Religion	Caste/ Tribe/ Commu-nity			Non-ava-ilability of raw materials	Non ava-ilability of raw materials	Better Govt. Service	Low income and very much difficult to maintain the family	Non-ava-ilability of raw materials	Not known the tech-nique	Low inc-ome and very difficult to main-tain the family
1	2	3	4	5	6	7	8	9	10	11
					Consolidated					
Hindu	Kansari	M	15	1	3	1	1	4	3	2
					Bhatimunda					
Hindu	Kansari	M	5	-	1	1	-	3	-	-
					Pratap Sasan					
Hindu	Kansari	M	5	-	-	-	1	-	3	1
					Kantilo					
Hindu	Kansari	M	5	1	2	-	-	1	-	1

Out of nine households who have given up the craft for the last 20 years three are literate without educational level, two are primary or junior, basic one each with qualification of middle school pass, matriculation or higher secondary and two are graduates. Details of educational level of all the 15 households are given in table VI. 11.

Table VI. 11

Households reported Reasons for giving up the craft Classified by Sex and Educational Level of the Head of the Household

Educational level of the head of the household	Sex of the head of the household (M/F)	No. of households	Number of households having given up the craft since						
			5-9 years	10 - 19 years due to			20 + years due to		
			Due to Non-availability of raw materials	Low income and difficult to maintain the family	Non-availability of raw materials	Better Govt. Service	Not known the bell-metal work from his childhood	Low income and very difficult to maintain the family	Non-availability of raw materials
1	2	3	4	5	6	7	8	9	10
1. Illiterate	-	-	-	-	-	-	-	-	-
2. Literate without educational level	M	3	-	-	-	-	2	-	1
3. Primary or Junior Basic	M	4	1	-	1	-	1	-	1
4. Middle	M	3	-	-	2	-	-	-	1
5. Matriculation or higher secondary	M	2	-	-	-	1	-	-	1
6. Non-tech. diploma or certificate not equal to degree	M	1	-	1	-	-	-	-	-
7. Technical diploma or Certificate not equal to degree	-	-	-	-	-	-	-	-	-
8. Graduate and above	M	2	-	-	-	-	-	2	-
Total	M	15	1	1	3	1	3	2	4

At the time of survey it is found that all the 15 head of the households are male members. They have taken up the occupation like silver, brass and bell-metal business, cycle repairing, radio repairing, watch repairing etc. after giving up their traditional occupation.

The details in this regard are given in table VI.12.

It is further ascertained that reasons of giving up their traditional craft those general nature such as non-availability of the raw material strenuous labour but less income, shortage of funds and difficult of maintain the family with such low income.

On further probing it is ascertained that there are six households in which there was no member with necessary skill to practise the craft. This might be the main reasons to give up the craft. In other nine households although there were persons with necessary skill to manufacture the bell-metal product, they have done a way with it due to non-availability of raw materials and funds.

The distribution of these 15 not practising households having members with necessary skill to practise the craft and reported reasons for not practising the same in different present occupation of head of households is given in table VI.13.

However, it is interesting to note here that out of nine households in which there are members with necessary skill for manufacture of craft products, five are interested to take up again the traditional craft if necessary assistance are given to them.

The educational level of those five households and their occupations are presented in table VI.14 and VI.15 respectively at the end of this chapter. All those heads of the five households have the qualification upto middle school examination.

The opinion of the head of the households regarding the inclination of the traditional occupation for their children by educational level of the head of the household is presented in table VI.16.

Table

Households reported reasons for giving up the Craft classified by Sex

Occupation of the head of the household	Sex of the head of the household (M/F)	Number of households	Number of households having given up the		
			5-9 years due to		10-19 years
			Non-availability of raw materials and very low income	Difficult to maintain family due to very low income	Better job security in Govt. Department
1	2	3	4	5	6
Silver, Brass, Bell metal Business	M	2	-	1	-
Radio repairing	M	1	-	-	-
Watch repairing	M	1	-	-	-
Artist (Status etc.)	M	2	-	-	-
Brass metal business	M	1	-	-	-
Brass metal work	M	3	-	-	-
Govt. Service	M	1	-	-	1
Stationery Shop-keeper	M	1	-	-	-
Grocery Business	M	1	-	-	-
Aluminium Craft	M	1	-	-	-
Cycle repairing	M	1	1	-	-
Total	M	15	1	1	1

VI.12

and Occupation of the head of the household

Craft since				
due to		20 + years due to		
Non-availability of raw materials and shortage of fund	Not known the tradaitional work since childhood	Difficult to maintain family due to low income	Non-availability of raw materials and shortage of fund	To get more income
7	8	9	10	11
-	-	1	-	-
-	1	-	-	-
-	1	-	-	-
1	1	-	-	-
-	-	-	1	-
1	-	-	2	-
-	-	-	-	-
-	-	-	1	-
1	-	-	-	-
-	-	1	-	-
-	-	-	-	-
3	3	2	4	-

Table VI.13

Distribution of households having members with necessary skill to practice the craft and reported reasons for not practising the craft classified by occupation of the head of the household

Occupation of the head of the household	Sex of the head of the household (M/F)	Number of house-holds	Number of households having no members with necessary skill to practise the Craft	Number of households having member(s) with necessary skill to practise the craft but not practising the same due to reason		
				Due to non-availability of raw materials and want of fund	To get more project	Non-availability of raw materials and low income and also police torture
1	2	3	4	5	6	7
Silver, Brass and bell-metal business	M	2	2	-	-	-
Radio Repairing	M	1	1	-	-	-
Watch Repairing	M	1	1	-	-	-
Artist (Statues etc.)	M	2	1	1	-	-
Grocery Business	M	1	-	1	-	-
Brass metal work	M	3	1	2	-	-
Aluminium Craft	M	1	-	-	1	-
Cycle repairing	M	1	-	-	-	1
Stationery shop-keeper	M	1	-	1	-	-
Govt. Service	M	1	-	1	-	-
Brass metal business	M	1	-	1	-	-
Total	**M**	15	6	7	1	1

Table VI.14

Households having members with necessary skill and who are not practising the Craft now but are considering to take up the craft as an occupation classified by Sex and Educational level of the head of the household

Educational level of the head of the household	Sex of the head of the household (M/F)	Number of house-holds	No of households having no member with necessary skill to practise the Craft	No. of households having members with necessary skill not practising the craft now but are	
				Considering to take up the craft or as occupation	Not considering to take up the craft or as occupation
1	2	3	4	5	6
Illiterate		-	-	-	-
Literate without educational level	M	3	2	1	-
Primary or Junior basic	M	4	1	2	1
Middle	M	3	-	2	1
Matriculation or higher secondary	M	2	1	-	1
Non Technical diploma or Certificate not equal to degree	M	1	1	-	-
Technical diploma or certificate not equal to degree	-	-	-	-	-
Graduate and above	M	2	1	-	1
Total	M	15	6	5	4

Table VI.15

Household having members with necessary skill and who are not practising the Craft now but are considering to take up the craft as an occupation classified by sex and occupation of the Head of the Household

Occupation of the head of the household	Sex of the head of the household (M/F)	Number of house-holds	No. of households having no member with necessary skill to practise the craft	No. of households having members with necessary skill not practising the craft	
				Considering to take up the craft or as occupation	Not considering to take up the craft or as occupation
1	2	3	4	5	6
1. Artist (Statue etc.)	M	2	1	-	1
2. Brass, Bell-metal Business	M	2	2	-	-
3. Watch repairing	M	1	1	-	-
4. Radio repairing	M	1	1	-	-
5. Brass metal business	M	1	-	-	1
6. Brass metal work	M	3	-	2	1
7. Government Service	M	1	1	-	-
8. Stationery Shop-keeper	M	1	-	1	-
9. Grocery Business	M	1	-	1	-
10 Aluminium Craft	M	1	-	-	1
11. Cycle Repairing	M	1	-	1	-
Total	M	15	6	5	4

Table VI.16

Number of Households Disinterested in having their Sons/Daughters sticking to their traditional occupation but like to have them engaged in occupation of their liking classified by Sex and Educational Level of the head of the Household.

ducational level f the head of the ousehold	Sex of the head of the household (M/F)	Number of house-holds	Number of households reported that their sons/daughters should not stick to the traditional occupation but should follow the occupation of their liking due to			
			Hard and Strenuous work, low income and non-availability of raw materials	Non-availability of raw materials from govt.	Educational qualification of Son/ daughter	Lack of prestige
1	2	3	4	5	6	7
. Literate withought Educational level	M	3	2	1	-	-
. Primary or Junior Basic	M	4	2	-	1	1
. Middle	M	3	3	-	-	-
. Matriculation or Higher secondary	M	2	2	-	-	-
. Non-tech. diploma or certificate not equal to degree	M	1	-	1	-	-
. Graduate and above	M	2	1	-	1	-
	M	15	10	2	2	1

It is quite evident from the foregoing aragraphs that the development of the craft could enerate more employment opportunities. Each orkshop could employ three to 12 persons easily. or collection of raw materials, marketing of roducts and other ancillary works of the craft ould employ some more persons also.

Development of the craft requires better aining, availability of raw materials, funds, extension of marketing facilities and use of improved tools and equipments. This can be done through efficient co-operative societies, raw material bank for issue of raw materials and collection of finished products and marketing agencies under proper supervision of the Government. On the whole it is prospective household industry or workshop for the development of the country so far material aspect is concerned.

CHAPTER VII

CONCLUSION

Our socio-cultural setting conforms to the decentralised economic activities and our plans lay much emphasis on to make the self governing individuals a possibility. The economic structure as per the 1981 Census displays the presence of 3.30 per cent household industries workers in the state of Orissa.

Manufacture of bell-metal products is done in the scale of household industries mostly in the rural areas of the state since its inception. It involves tenacious physical labour of both skilled, semi-skilled and unskilled workers and is accomplished through indigenous tools and equipments.

In the past the industry flourished and developed because of free flow of raw materials in the hands of the limited number of artisans, easy and abundant availability of fuel and above all the demand of the people for bell-metal products for various reasons. The Kansari who have been in the trade through generations have either no cultivable land at all or very little cultivable land to sustain them. The economic prosperity achieved as visualised in the foregoing chapters bears testimony to the potentiality of the craft as a source of livelihood in the past.

Investigation into the surveyed households revealed that all the 53 households of the three units unequivocally expressed their views in favour of the craft as a source of livelihood in the past.

During the last two decades the craft witnessed disintegration and has to survive against new rivals. The advent of factory made products like the stainless steel, aluminium, ceramic and plastic wares into the households as utilitarian articles has brought about a serious challenge to bell-metal products.

The manufacture of bell-metal products is dependent upon Copper and Tin. Among the two, Tin is costlier and is scarcely available in the market. The cost of one kilogramme of Tin (SN) is as high as Rs.400/- and is about four times higher than its counterpart Copper till 1957, a bulk of the raw materials was met out of imports without any restraint. But as per the non-ferrous metal control order, 1958 and subsequent amendment in 1959, the quota of non-ferrous metals was fixed and was distributed to the actual users after every six months by the Director of Industries through its District Industries Centre. And the system still prevails in Orissa. A separate branch under the Joint Director of Industries functions in the state that looks after the distribution and allied activities concerned with the craft. The opinions of the craftsmen of the three units revealed that the supply of the raw materials is irregular and quite inadequate. It hardly meets about one-fifth of the

actual requirements of the craftsmen. And presently the craft is mainly dependent upon the availability of old and damaged utensils to a great extent. Moreover, the cost of charcoal has gone up exorbitantly. At present one kilogramme of charcoal costs about Rs.1.25 as against 50 paise previously. These factors ultimately resulted in an abnormal increase of price of bell-metal products which sells at Rs.130/- to Rs.150/- per kg. at present. Despite all these factors the craft has saved itself from adversity or decline. Apart from the religious or sentimental considerations, the metal wares possess intrinsic economic worth such as durability of the material, resaleability of the old and wornout articles which sells at more than Rs.100/- per kg. The bell-metal products are considered a movable property and are accepted in the form of security while obtaining loan or in repayment of debts.

The views of the craftsmen in regard to the craft as a source of livelihood at present were divergent. Among the 53 households 28 or 52.87 per cent viewed in favour of the craft as a source of livelihood and wanted to engage their off-springs in the craft. The views of these craftsmen are based on certain traditional considerations such as the braziers, genuine love for the ancestral craft, besides non-availability of gainful employment in other economic avocations, it is independent and needs no formal institutional training for entry in to the craft and it is profitable. These contentions of the craftsmen, as far as the craft is concerned, are genuine, and true.

The rest 25 are reluctant due to want of easy availability of raw materials, strenuous job with less labour charge which are genuine reasons of their dissatisfaction. These can only be avoided if plans will be made to meet their requirements besides providing mechanical devices to lessen physical labour in the manufacturing process. Provision of such arrangements according to their views will bring prosperity and fortune to them.

A circumspection of the present trend amply corroberates the contention of the non-practising craftsmen who were previously engaged in the craft. Irregular and inadequate supply of raw materials and in deft handing of the situation on the part of the co-operatives kept the artisans idle for a major part of the year. The reasons ascribed for leaving the traditional craft were in most cases the same as discussed earlier. The forces which accelerate the process of occupational mobility are non-availability of raw materials and fuel. Besides,the cost of raw material available in the open market is abnormally high and is not of desired quality and the margin of profit from the articles thus manufactured was very insignificant.

The craft as envisaged has high potentiality to generate more employment opportunities provided adequate quantity of raw materials and infrastructural arrangements like money and marketing faclities are extended to them.

The financing bank in case of all the Co-operative societies is Central Co-operative Bank. This bank extends credit facilities to co-operative societies receipt, deposits and withdrawals. The bank extends loan in every three years. Moreover, where withdrawals are concerned the recommendations of the District Industries Centre and Industries Promotion Officer(IPO) are required.

This procedure should be done away with and one technical supervisor should be posted in the villages to provide technical guidance. As per the opinions of the craftsmen, some arrangements for providing better credit facilities on easy instalments should be made through nationalised

banks so that they can buy raw materials and sell the finished goods without banking on the intermediary agency. The liberalised loan scheme of the State Bank of India for artistic wares is quite helpful. And the co-operative banks may be induced to extend cheap credit facilities to the craftsmen. In addition, raw material banks should be established in the villages so that the craftsmen will not be harassed to procure the raw materials from the open markets which involves higher costs.

The substance of biographical sketches of artisans as well as the information narrated in the foregoing chapters reveal the same trend. As per their opinions, though the cost of the bell-metal utensils has gone up exorbitantly, still people of all walks of lives like to prefer bell-metal utensils because of its intrinsic value. Moreover, it forms a part of presentation in case of marriage of daughters of middle and lower middle class of people in the state. As a whole it helps to maintain a better and healthy life because of its intrinsic quality. In such occasion, factory made products can not compete with bell-metal utensils. Besides, the bell-metal products are greatly appreciated, not-withstanding its cost in West Bengal, Uttar Pradesh and Madhya Pradesh. But the artisans fail to meet the growing demands because of non-availability of raw materials.

The co-operative societies, though act like liaisoning institutions between the Director of Industries and the artisans, have failed to fulfil the demands of the artisans. The quota of raw materials supplied to co-operative societies through Director of Industries has been discontinued since last two years. And the industry is depending fully upon the raw materials available in the open market and the old and damaged utensils. The artisans also face lot of harassment while retrieving the old and damaged utensils. Despite the abolition of sales tax and octroi on bell-metal product, the artisans come across difficulties by the octroi and sales tax authorities at the check gates. According to their opinion such difficulties can only be removed if raw material banks or the adequate quantity of raw materials are provided to the artisans either through co-operative or metal banks at a subsidised rate along with the marketing facilities. Such infrastructural arrangements at the micro level will not only facilitate the expansion of the industry but also will reduce the cost of bell-metal wares to some extent.

Despite the provision to impart training on brass and bell-metal training at the training-cum-production centres at Pratap Sasan and Kantilo, the training on bell-metal has been completely discont-inued since last two years owing to non-availability of raw materials. Besides, no integrated step has been taken by these centres to rehabilitate the trainees after completion of their training, which ultimately deprives them the application of their skill and experience.

The high cost of the bell-metal wares are due to certain concomitant factors. The cost can be reduced to some extent without endangering the traditional character of the products. The manufacturing process of bell-metal wares should be mechanised by providing electrically operated blowers, lathe machines for both scrapping and finishing besides discovering a new fuel instead of charcoal.

APPENDICES

APPENDIX 1

List of important Bell-metal production Centres, 1987

Name of District	Name of Centre	Name of Police Station
1	2	3
Sambalpur	Katapali	Bargarh
	Gandhitikara	Attabira
	Kultatakra	Attabira
	Rengali	Katarbaga
	Bijepur	Bijepur
Sundargarh	Tangarapali	Tangarapali
Kendujhar	Kendujhar town	
	Mugupur	Anandapur
Mayurbhanj	Bholabeda	Bisoi
	Chitrada	Muruda
Baleshwar	Remuna	Remuna
	Dehala	Bhograi
Cuttack	Baldyarajpur	Jajapur
	Bhatimunda	Tangi
	Bindhanima	Tigiria
	Kanpur	Kanpur
Dhenkanal	Bhuban	Bhuban
	Pohali	Dhenkanal
Balangir	Tarbha	Tarbha
	Binika town	
Koraput	Mantriguda	Nabarangapur
Ganjam	Jagamohan	Asika
	Bellaguntha town	
	Boirani	
	(Kavisurjyanagar town)	
Puri	Kantilo (Consus town)	Khandapada
	Khalisai	Khandapada
	Pratap Sasan (Balakati)	Ballanta
	Bainchuan	Ballanta
	Muktapur	Khordha

APPENDIX

Distribution of Population by Age,

Age group	Never Married			Married		
	Person	Male	Female	Person	Male	Female
1	2	3	4	5	6	7
0 - 4	4	2	2	-	-	-
5 - 9	7	3	4	-	-	-
10 - 14	14	8	6	-	-	-
15 - 19	9	6	3	-	-	-
20 - 24	5	5	-	1	-	1
25 - 29	2	2	-	3	1	2
30 - 34	-	-	-	2	1	1
35 - 44	-	-	-	11	5	6
45 - 54	-	-	-	5	4	1
55 - 69	-	-	-	8	4	4
70 +	-	-	-	1	1	-
Total	41	26	15	31	16	15

2

Sex and Marital Status (Bhatimunda)

Divorced or Separated			Widowed			Total Population		
Person	Male	Female	Person	Male	Female	Person	Male	Female
8	9	10	11	12	13	14	15	16
-	-	-	-	-	-	4	2	2
-	-	-	-	-	-	7	3	4
-	-	-	-	-	-	14	8	6
-	-	-	-	-	-	9	6	3
-	-	-	-	-	-	6	5	1
-	-	-	-	-	-	5	3	2
-	-	-	-	-	-	2	1	1
-	-	-	-	-	-	11	5	6
-	-	-	-	-	-	5	4	1
-	-	-	1	-	1	9	4	5
-	-	-	2	-	2	3	1	2
-	-	-	3	-	3	75	42	33

APPENDIX

Distribution of Population by Age,

Age group	Never Married			Married		
	Person	Male	Female	Person	Male	Female
1	2	3	4	5	6	7
0 - 4	18	5	13	-	-	-
5 - 9	18	11	7	-	-	-
10 - 14	14	9	5	-	-	-
15 - 19	11	5	6	2	-	2
20 - 24	4	4	-	9	4	5
25 - 29	-	-	-	8	4	4
30 - 34	-	-	-	10	3	7
35 - 44	-	-	-	12	8	4
45 - 54	-	-	-	7	1	6
55 - 69	-	-	-	12	9	3
70 +	-	-	-	2	2	-
Total	65	34	31	62	31	31

2

Sex and Marital Status (Balakati)

Divorced or Separated			Widowed			Total population		
Person	Male	Female	Person	Male	Female	Person	Male	Female
8	9	10	11	12	13	14	15	16
-	-	-	-	-	-	18	5	13
-	-	-	-	-	-	18	11	7
-	-	-	-	-	-	14	9	5
-	-	-	-	-	-	13	5	8
-	-	-	-	-	-	13	8	5
-	-	-	-	-	-	8	4	4
-	-	-	-	-	-	10	3	7
1	-	1	-	-	-	13	8	5
-	-	-	1	-	1	8	1	7
-	-	-	3	2	1	15	11	4
-	-	-	1	-	1	3	2	1
1	-	1	5	2	3	133	67	66

APPENDIX

Distribution of Population by Age,

Age group	Never Married			Married		
	Person	Male	Female	Person	Male	Female
1	2	3	4	5	6	7
0 - 4	15	6	9	-	-	-
5 - 9	24	16	8	-	-	-
10 - 14	20	12	8	-	-	-
15 - 19	17	7	10	-	-	-
20 - 24	5	5	-	2	-	2
25 - 29	5	5	-	9	3	6
30 - 34	-	-	-	7	3	4
35 - 44	1	1	-	15	8	7
45 - 54	1	-	1	15	5	10
55 - 69	-	-	-	12	10	2
70 +	-	-	-	5	3	2
Total	88	52	36	65	32	33

2

Sex and Marital Status (Kantilo)

Divorced or Separated			Widowed			Total Population		
Person	Male	Female	Person	Male	Female	Person	Male	Female
8	9	10	11	12	13	14	15	16
-	-	-	-	-	-	15	6	9
-	-	-	-	-	-	24	16	8
-	-	-	-	-	-	20	12	8
-	-	-	-	-	-	17	7	10
1	1	-	1	-	1	9	6	3
-	-	-	-	-	-	14	8	6
1	-	1	-	-	-	8	3	5
-	-	-	-	-	-	16	9	7
-	-	-	-	-	-	16	5	11
-	-	-	-	-	-	12	10	2
-	-	-	2	2	-	7	5	2
2	1	1	3	2	1	158	87	71

APPENDIX

Distribution of Population by Age,

Age group	Total Population			Illiterate		Literate without Educational Level	
	Person	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8
All Ages	75	42	33	3	13	14	6
0 - 4	4	2	2	2	2	-	-
5 - 9	7	3	4	1	1	2	2
10 - 14	14	8	9	-	-	-	1
15 - 19	9	6	3	-	-	1	1
20 - 24	6	5	1	-	-	-	-
25 - 34	7	4	3	-	-	1	2
35 +	28	14	14	-	10	10	-

3

Sex and Educational level (Bhatimunda)

Educational Level								Remarks
Primary or Junior Basic		Middle		Matriculation or Higher Secondary		Technical diploma or Certificate not equal to degree		
Male	Female	Male	Female	Male	Female	Male	Female	
9	10	11	12	13	14	15	16	17
12	10	7	4	5	-	1	-	None returned
-	-	-	-	-	-	-	-	Education as
-	1	-	-	-	-	-	-	Non-technical
7	3	1	2	-	-	-	-	diploma or
1	1	2	1	2	-	-	-	Certificate not
2	1	-	-	2	-	1	-	equal to degree
-	-	2	1	1	-	-	-	and Graduate degree
2	4	2	-	-	-	-	-	and above

APPENDIX

Distribution of Population by Age,

Age group	Total Population			Illiterate		Literate without Educational Level	
	Person	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8
All Ages	133	67	66	16	38	18	10
0 - 4	18	5	13	5	13	-	-
5 - 9	18	11	7	4	3	5	4
10 - 14	14	9	5	1	1	1	1
15 - 19	13	5	8	-	3	1	-
20 - 24	13	8	5	1	1	1	2
25 - 34	18	7	11	1	3	-	-
35 +	39	22	17	4	14	10	3
Age not stated	-	-	-	-	-	-	-

3

Sex and Educational level (Balakati)

Educational Level						Remarks
Primary or Junior Basic		Middle		Matriculation or Higher Secondary		
Male	Female	Male	Female	Male	Female	
9	10	11	12	13	14	15
26	15	5	3	2	-	None returned
-	-	-	-	-	-	Educational as
2	-	-	-	-	-	Non-tech. dip. or
7	3	-	-	-	-	Cert. not equal to
3	4	1	1	-	-	degree, Tech. dip. or
4	1	1	1	1	-	Cert. not equal to
2	7	3	1	1	-	degree and
8	-	-	-	-	-	Graduate
-	-	-	-	-	-	& above

APPENDIX

Distribution of Population by Age,

Age group	Total Population			Illiterate		Literate without Educational Level	
	Person	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8
0 - 4	15	6	9	6	9	-	-
5 - 9	24	16	8	4	-	10	6
10 - 14	20	12	8	-	-	-	-
15 - 19	17	7	10	-	-	-	
20 - 24	9	6	3	-	-	-	-
25 - 34	22	11	11	-	2	1	-
35 +	51	29	22	2	10	4	3
All ages	158	87	71	12	21	15	9

3

Sex and Educational level (Kantilo)

Educational Level										
Primary or Junior Basic		Middle		Matriculation or Higher Secondary		Non-Technical diploma or Certificate not equal to degree		Graduate and above		Remarks
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
9	10	11	12	13	14	15	16	17	18	19
-	-	-	-	-	-	-	-	-	-	None returned
2	2	-	-	-	-	-	-	-	-	education
7	5	5	3	-	-	-	-	-	-	as Technical
2	2	4	4	1	4	-	-	-	-	diploma or
-	2	3	1	1	-	1	-	1	-	certificate not
2	8	7	1	-	-	-	-	1	-	equal to
18	8	5	1	-	-	-	-	-	-	degree
31	27	24	10	2	4	1	-	2	-	

APPENDIX 4

Distribution of Households classified by Nature of Relation of members to Head of the Household and number of members (Bhatimunda)

	Nature of relation of members to head of the household	Number of households	Number of Members
	1	2	3
1.	Self	1	1
2.	Self, Spouse	-	-
3.	Self, Spouse, Unmarried Sons and Daughters	7	35
4.	Self, Spouse, Married Son and Son's wife with or without unmarried Sons and Daughters	1	6
5.	Self, Spouse, Married Brother, Brother's wife, with or without Unmarried Sons and Daughters	-	-
6.	Self, Spouse, Married Brother, Brother's wife, Married Son, Son's wife, with/without unmarried Sons and/or Daughters	-	-
7.	Self(Male), Unmarried Son/Daughter.	-	-
8.	Self (Female), Unmarried Son/Daughter	-	-
9.	Self, Spouse, with or without Unmarried Son/Daughter and widowed Father	-	-
10.	Self, Spouse, with or without Unmarried Son/Daughter and widowed mother	2	11
11.	Self(Male), Unmarried Brother/Sister	-	-
12.	Others		
	(i) Self, Spouse, Son, Daughter and Father's Brother's wife	1	8
	(ii) Self, Spouse, Married Sons, daughter, Brother's wife, Unmarried Son, daughter, Father, Mother, Unmarried Brother, Sister	1	14
	Total	13	75

APPENDIX 4

Distribution of Households classified by Nature of Relation of members to Head of the Household and number of members (Balakati)

	Nature of relation of members to head of the household	Number of households	Number of Members
	1	2	3
1.	Self	-	-
2.	Self, Spouse	-	-
3.	Self, Spouse, Unmarried Sons and Daughters	7	34
4.	Self, Spouse, Married Son and Son's wife with or without unmarried sons and Daughters	7	55
5.	Self, Spouse, Married Brother, Brother's wife with or without Unmarried Sons and Daughters	-	-
6.	Self, Spouse, Married Brother, Brother's wife, Married Son, Son's wife, with/without Sons or/and Daughters	-	-
7.	Self(Male), Unmarried Son/Daughter.	-	-
8.	Self (Female), Unmarried Son/Daughter	-	-
9.	Self, Spouse, with or without Unmarried Son/Daughter and widowed Father	-	-
10.	Self, Spouse, with or without Unmarried Son/Daughter and widowed mother	2	13
11.	Self(Male), Unmarried Brother/Sister	-	-
12.	Others		
	(i) Self, Spouse, Father, Mother, Unmarried Brother, Sister	1	6
	(ii) Self(male), Son's wife, Son's Son and Daughter	1	5
	(iii)Self(male), Son, Son's wife, Son's Son and Daughter's Son	1	7
	(iv)Self, Spouse, Married Brother, Brother's wife, Father, Mother with their Unmarried Sons and Daughters.	1	13
	Total	20	133

APPENDIX 4

Distribution of Households classified by Nature of Relation of members to Head of the Household and number of members (Kantilo)

	Nature of relation of members to head of the household	Number of households	Number of Members
	1	2	3
1.	Self	-	-
2.	Self, Spouse	-	-
3.	Self, Spouse, Unmarried Sons and Daughters	10	48
4.	Self, Spouse, Married Son and Son's wife with or without unmarried sons and Daughters	3	27
5.	Self, Spouse, Married Brother, Brother's wife with or without Un-married Sons and Daughters	1	13
6.	Self, Spouse, Married Brother, Brother's wife, Married Son, Son's wife, with/without Unmarried Sons and Daughters	-	-
7.	Self(Male), Unmarried Son/Daughter.	-	-
8.	Self (Female), Unmarried Son/Daughter	-	-
9.	Self, Spouse, with or without Unmarried Son/Daughter and widowed Father	-	-
10.	Self, Spouse, with or without Unmarried Son/Daughter and widowed mother	-	-
11.	Self(Male), Unmarried Brother/Sister	-	-
12.	Others		
	(i) Self, Spouse, Married Brother and Brother's wife with unmarried children and Father, mother	2	41
	(ii) Self, Spouse, Unmarried children with Brother's wife	1	5
	(iii) Self widowed (male) with son, Son's wife, sons unmarried Children and separated daughter	1	6
	(iv) Self, spouse, Father, Mother, widow Brother's wife, unmarried sister and unmarried son & daughter	1	11
	(v) Self, Spouse, unmarried son, daughter, brother and widowed father	1	7
	Total	20	158

ANNEXURES

ANNEXURE - I

List of Co-operative societies in Orissa State associated with the bell-metal Handicraft, 1987

Sl .No.	Name of District	Name of Co-operative society	Address
1	2	3	4
		RURAL	
1.	PURI	Gopalji Kansari Industrial Co-operative society	Naikpatna, P.O. Chandanpur
2.		Bhaichuan Brass and Bell-metal Industrial Co-operative Society	Bhaichuan
3.		Banjiya Bikash Bell metal Industrial-Co-operative Society	Muktapur
4.		Rathi Jema Kansa Pital Samabaya Samiti	Rathi Jema (Pratap Sasan)
5.		Dadhibabanjew Non-Ferrous Metal Industrial Co-Operative Society	Hariharpur
6.		Jadumani Bell-metal Workers' Co-operative Society	Itamati
7.		Belpara Patna Non-Ferrous Metal-Industrial Co-Operative Society	Belpara Patna
8.		Kuanri Non-Ferrous Metal Industrial Co-operative Society	Rajsunakhala
9.		Biswanath Brass and Bell-metal Co-operative Society	Bhaichuan
10.		Bhagabat Basudev Bell-metal Industrial Co-operative Society	Bedhi, P.O.Mangalpur
11.		Kansari Louhatar Dhatu Silpa Co-operative Society	Rajsunakhala
12.		Ranapur Bell-metal Industrial Co-operative Society	Raj-Ranapur
13.		Achutapur Brass and Bell-metal Workers' Co-operative Society	Achutapur
14.		Rajashree Non-Ferrous Metal industrial Co-operative Society	Bhaichuan
15.		Bak Devi Non-Ferrous Metal Industries Co-operative Society	Bhaichuan

ANNEXURE - I (Contd.)

1	2	3	4
16.		Bhagabati Non-Ferrous Metal Industrial Co-operative Society	Rathijema (Pratap Sasan), P.O.Balakati
17.		Netaji Non-Ferrous Metal Industrial Co-operative Society	Rathi Jema (Pratap Sasan) P.O.Balakati
18.		Balakati Non-Ferrous Metal Industrial Co-operative Society	Pratap Sasan, (Balakati)
19.		Sidheswar Non-Ferrous Metal Industrial Co-operative Society	Bhaichuan
20.		Ambika Utensils Silpa Co-Operative Society	Rathijema (Pratap Sasan), P.O.Balakati
21.		Khetrapal Non-Ferrous Metal Industrial Co-operative Society	Barilo, P.O.Balipatna
22.		Madan Mohan Utensils Industrial Co-operative Society	Rathijema (Pratap Sasan), P.O.Balakati
23.		Laxmi Naryan Bell-metal Co-operative Society	Belpada patna
24.		Mahabir Utensils Industrial Co-operative Society	Bhaichuan
25.		Mahalaxmi Brass and Bell-metal Industrial Co-operative Society	Bhaichuan
26		Maninag Lauhatar Dhatu Industrial Co-Operative Society	Ranapur
27.		Khetra Mohan Louhatara Dhatu Silpa Samabaya Samiti	Bhaichuan
28.		Abhiram Paramhansa Brass and Bell-metal Co-operative Society	Bhaichuan
29.	GANJAM	Patrapur Bell-metal Co-operative Society	Patrapur
30.		Jaga Mohan Bell-metal Trading Co-operative Society	Jagamohan
31.		Kanchuru Jatiya Kansa Pital Silpa Samabaya Samiti	Kanchuru
32.		Nimina Kharuda and Kansari Co-operative Industrials	Nimina

ANNEXURE - I (Contd.)

1	2	3	4
33.		Narayani Bell-metal Industrial Co-Operative Society	Bikrampur
34.		Mathura Sahajoga Samity	Mathura
35.	CUTTACK	Bhatimunda Bell-metal Co-operative Society	Bhatimunda
36.		Samantarapur Bell-metal Co-operative Society	Santarapur
37.		Jaganath Brass and Bell-metal Industrial Co-operative Society	Atalpur, P.O.Santarapur
38.		Bindhanima Brass and Bell-metal Industrial Co-Operative Society	Bindhanima
39.		Jagannath Brass and Bell-metal Co-operative Society	Balichandrapur
40.		Sameswar Jiu Kansa Pital Aluminium Service Co-Operative Society	Kundapatna
41.		Jaganath Bell-metal Co-operative Society	Kanpur
42.		Laxminarayan Brass and Bell-metal Aluminium Industrial Co-operative Society	Laxminagar
43.		Ganaraba Brass and Bell-metal Co-operative Society	Bhatimunda
44.		Rasabihari Brass and Bell-metal Industrial Co-Operative Society	Champatipur
45.		Baladev Jiu Bell-metal Co-operative Society	At. Bazar, P.O.Panasudha
46.		Ramasita Brass and Bell-metal Co-operative Society	Kalindabad, P.O.Badyarajpur
47.		Khageswari Non-Ferrous Industrial Co-operative Society	Oupatna,P.O.Santrapur
48.		Mahabir Brass and Bell-metal Co-operative Society	Gokulpur, P.O.Govindapur
49.		Jadua Non-Ferrous Metal Industrial Co-operative Society	Bhatimunda
50.		Saranga Non-Ferrous Metal Industrial Co-operative Society	Bhatimunda

ANNEXURE - I (Contd.)

1	2	3	4
51.	DHENKANAL	Tubey Non-Ferrous Metal Industrial Co-operative Society	Tubey
52.		Indupur Brass and Bell-metal Co-operative Society	Indupur
53.		Kalapat Bell-metal Co-operative Society	Tubey
54.		Ou Khama Non-Ferrous Metal Industrial Co-operative Society	Oukhama, P.O.Sarka patna
55.		Mahima Brass and Bell-metal Co-operative Society	Tambiri
56.	BALESHWAR	Remuna Bell-metal Co-operative Society	Remuna
57.		Sri Aurobinda Bell-metal Co-operative Society	
58.	BALANGIR	Binika Brass and Bell-metal Industrial Co-operative Society	Binika
59.		Arnapurna Bell-metal Co-operative Society	Subalaya
60.	KENDUJHAR	Mugupur Non-Ferrous Industrial Co-operative Society	Mugupur
61.		Pitatankara Non-Ferrous Co-operative Society	At-pitaltankara P.O. Harichandrapur
62.		Mangala Non-Ferrous Metal Industrial Co-operative Society	Gunthaposi, P.O.Telkoi
63.		Dhanarjaya Pur Non-Ferrous Metal Industrial Co-operative Society	Dhanarjay Pur
64.		Tarini Louhatar Dhatu Industrial Co-operative Society	Raisua
65.	KORAPUT	Boriguma Bell-metal industrial Co-Operative society	Boriguma
66.		Padmapur Bell Metal Industrial Co-operative Society	Padmapur

ANNEXURE - I (Contd.)

1	2	3	4
67.	SAMBALPUR	Kate Pali Bell-metal Co-operative Society	Kata Pali
68.		Rengali Kansari Industrial Co-operative Society	Rengali
69.		Gandhi tikara Bell-metal Co-operative Society	Gandhi tikara P.O.Kultatukura
70.		Bijipur Bell-metal Co-operative Society	Bijipur
71.		Kulata tukura Bell-metal Co-operative Society	Kultatukura
72.	PHULABANI	Guduvalli Padar Brass Bell-metal Industrial Co-operative Society	Guduvalli Padar
73.		Chandra Chuda Bell-metal Co-operative Society	Bandha
74.	MAYURBHANJ	Bholabeda Bell-metal Co-operative Society	Bholabeda P.O.Luhakhani
75.	KALAHANDI	Maheswari Brass and Bell-metal Industrial Co-operative Society	Sandhikulihari
		URBAN	
76.	PURI	Nilamadhab Bell-metal and Brass Workers' Co-operative Society	Kantilo
77.		Nayagarh Non-Ferrous Metal Industrial Co-Operative Society	Nayagarh
78.		Mahabir Brass and Bell-metal Co-operative Society	Kantilo
79.		Bapuji Utensils Industrial Co-operative Society	Kantilo
80.		Rajadhani Non-Ferrous Metal Industrial Co-operative Society	Bhubaneswar
81.		Sidha Mohabir Bell-metal Co-operative Society	Puri
82.		Itamati Bell-metal Co-operative Society	Puri

ANNEXURE - I (Concld.)

1	2	3	4
83.	GANJAM	Bellaguntha Biswakarma Industrial Co-operative Society	Bellaguntha
84.		Kavisurya Brass and Bell-metal Co-operative Society	Kavisurjya Nagar
85.		Brahmapur Kansapital Basan Silpa Samabaya Samity	Panigrahi Pentha P.O.Brahmapur
86.	CUTTACK	Baidyarajpur Kansa Pital Samabaya Samity	Jajpur
87.		Abhiram Paramahansa Kansa Pital Service Co-Operative Society	Jajpur
88.	DHENKANAL	Nua Bhuban Non-Ferrous Metal Industrial Co-Operative Society	Bhuban
89.		Bhuban Bell-metal Co-Operative Society	Bhuban
90.		Mahalaxmi Kansari Industrial Co-operative Society	Bhuban
91.	BALANGIR	Laxmi Narayan Brass and Bell-metal Industrial Co-operative Society	Tarbha
92.		Balangir Bell-metal Co-operative Society	Balangir
93.	KENDUJHAR	Anandapur Non-Ferrous Metal Industrial Co-operative Society	Anandapur
94		Mahalaxmi Non-Ferrous Metal Co-operative Society	Kendujhar
95.		Kendujhar Town Bell-metal Co-operative Society	Kendujhar

Source :- Office of the Joint Director, Handicraft, Orissa, Bhubaneswar.

ANNEXURE

Census Town/Village Directory -

Location code No.	Name of the Village	Total area of the village (in hectares)	Total population (Number of households)
1	2	3	4
(Tangi P.S. (Part) III - 27)	Bhatimunda	62.73	2,273(432)
(Balianta 63-18)	Pratap Sasan (Balakati)	660.85	7,969(1,398)
	Kantilo C.T.	624	7,877(1,424)

Amenities and Land use

Amenities available (if not available within the Village, a dash (-) is shown in the column and next to it in brackets, the distance in Kms. in broad ranges, viz., -5, 5-10 and 10+ of the nearest place where the facility is available is given)

Educational	Medical	Drinking water (Portable)	Post & Telegraph	Day or Days of the market/hat, if any	Communication (Bus-stop, Railway station, Water way)
5	6	7	8	9	10
P, M, H	-(-5)	W.TW	PO	Monday Thursday	-(-5)
P(2), M, H, C	PHC, FPC	W, TW, R	PTO, Phone	Tuesday Saturday	BS
1. A.C. 2. (Secondary Matriculation) 3. Junior Secondary & Middle School-4 4. Primary School-4 5. Adult training class-2	H-3 D Beds-3	W, TW	PTO, Phone	Daily market facilities both in the morning and evening	BS

ANNEXURE

Census Town/Village Directory -

Location Code No.	Name of the Village	Approach to village	Nearest town and distance (in Kms.)	Power Supply	Staple food
1	2	11	12	13	14
(Tangi P.S. (Part) III-27)	Bhatimunda	PR, KR	Cuttack(20)	ED	Rice, Wheat
Balianta 63-18)	Pratap Śasan (Balakati)	PR, KR	Bhubaneswar (9)	E. A	Rice
	Kantilo C.T.	KR (Length 3 Kms)	Nayagarh (32) BBSR City (92) Puri (130)	1. D 2. Industry 3. Commercial 4. Road Lighting	Rice, Wheat

Abbreviations:-

P - Primary or Elementary School
M - Junior Secondary or Middle School
H - Matriculation or Secondary
C - College
AC - Adult Literacy Class/Centre
H - Hospital
PHC- Primary Health Centre
FPC - Family Planning Centre
D - Dispensary

II

Amenities and Land use

Land use (i.e. area under different types of land use in hectares round up to 2 decimal places)					Remarks including any place of religious, historical or archaeological interest
Forest	Irrigated by source	Un-irrigated	Culturable waste (including gau-char and groves)	Area not available for cultivation	
15	16	17	18	19	20
-	18.21 (29.03)	2.02 (3.22)	16.19 (25.81)	26.31 (41.94)	N-20, M-4, Temple
-	157.02 (23.76)	250.50 (37.91)	59.49 (9.00)	193.84 (29.33)	N-43, M-29, C-6, Temple
3. 24 (0.52)	-	102.38 (16.41)	17.81 (2.85)	500.57 (80.22)	Auditorial-Drama/ Community Hall-1 Public Library-PL(5) Reading Room (RR-5) Temple

W - Well Water
TW - Tube well Water
R - River Water
PO - Post Office
PTO - Post and Telegraph Office
PR - Pucca Road
KR - Kutcha Road
ED - Electricity for domestic purpose
EA - Electricity for all purposes

ANNEXURE

Urban/Village Primary

Sl. No.	Name of Village/ Town/Ward	Area of village in Sq. Km.	No. of occupied residential houses	No. of households	Total population (including institutional and houseless-population		
					P	M	F
1	2	3	4	5	6	7	8
1	Bhatimunda	0.63 Sq.Km.	370	439	2,273 (3608)	1,170	1,103
2	Pratap Sasan	6.61 Sq.Km.	1,271	1,398	7,969 (1206)	4,076	3,893
3	Kantilo	6.24 Sq.Km.	1,361	1,424	7,877 (1262)	4,046	3,831

III

Census Abstract

Scheduled Castes			Scheduled Tribes			Literates		
P	M	F	P	M	F	P	M	F
9	10	11	12	13	14	15	16	17
245 (10.78)	131	114	2 (0.09)	2	-	782 (34.40)	543	239
1,153 (14.47)	591	562	-	-	-	3,724 (46.73)	2,454	1,270
1,136 (14.42)	591	545	8 (0.10)	4	4	4,546 (57.71)	2,875	1,671

ANNEXURE

Urban/Village Primary

Sl. No.	Name of Village/Town Ward	Main Total Main Workers (I-IX)			Main Cultivators (I)			Main Agricultural Labourers (II)		
		P	M	F	P	M	F	P	M	F
1	2	18	19	20	21	22	23	24	25	26
1	Bhatimunda	662 (29.12)	624	38	74	71	3	137	107	30
2	Pratap Sasan	2,429 (30.48)	2,187	242	388	365	23	450	328	122
3	Kantilo	1,941 (24.64)	1,832	109	255	250	5	165	156	9

III

Census Abstract

Workers						Marginal workers			Non-workers		
Household Industry-Manufacturing, processing Servicing & Repairs (V(a))			Other Workers (III, IV, V(b) and VI to IX)								
P	M	F	P	M	F	P	M	F	P	M	F
27	28	29	30	31	32	33	34	35	36	37	38
180	180		271	266	5	169	22	147	1,442	524	918
335	330	5	1,256	1,164	92	54	22	32	5,486	1,867	3,619
424	420	4	1,097	1,006	91	208	146	62	5,728	2,068	3,660

GLOSSARY

Achhu	:	Clay mould
Alati	:	One of the activities of worshipping God.
Anchal Samiti/ Thana Samiti		Regional Committee
Balah	:	Concave shaped circular bell metal plate in the process of manufacture of Kansa/Parasa/Tatia.
Baleshwari	:	Special type of bell-metal bowl first manufactured in Baleshwar district.
Ban Sandasi/Jodata	:	Pincers/Fork held in left hand
Bela/Kansa	:	Bell metal bowl to serve watered rice for dinning
Bhanar	:	Drill
Bhati	:	Mechanical rotary blower
Bhatia	:	Rotary blower operator
Bindhani	:	Artisan Labourer
Chaki	:	Circular bell-metal plate in the process of manufacture of bell-metal products.
Chanakha	:	Sample taken out of melting pot for metallurgical test.
Chaturbarga	:	Four types of race/caste etc.
Chhatisha Niyoga	:	The thirty six types of services to God.
Chhatisha Pataka	:	36 service caste series
Chitrakar	:	Painter
Chuta	:	Light hammer
Dhal Koi	:	Pot for pouring molten alloy in to achhu
Fulan	:	Upward elevation of edge of bell-metal products in beating process.
Ganta	:	Process of beating to get concavo-convex disc of the product.
Garha (Gadha)	:	Artificer (Artisan)/Master craftsman
Ghanta	:	Gong (A short height saucer shape sound producing instrument)
Ghantua seva	:	The Gong man service in the temple of God.
Ghati	:	Ingot, billet
Ghia Khia Kutumb	:	Members of the race of ceremonial occasions

Gina	.	Small bell-metal cup
Gini	:	Smallest size pair of concave circular bell-metal to bring the rythmic sound
Jaoo	:	Adhesive paste ror fixing article to lathe.
Jati	:	Caste
Jhan	:	A kind of sound
Jhanja	:	Cymbals
Jodata	:	Fork/Pincers held in left hand
Jyoti dekha	:	Visual metallurgical test
Kamar	:	Ironsmith
Kansa	:	Bell-metal
Kansa/Bela	:	Bell-metal bowl
Kansari	:	Skilled worker in bell-metal (Brazier)
Kansyakar	:	Worker in bell-metal
Kanti	:	Old bell-metal utensils
Kantika	:	Two or more cups placed one inside the other in beating process
Kar	:	Worker
Koi	:	Crucible for melting alloy
Karamula	:	Labour charge
Kora	:	Helper engaged in beating
Kubuji	:	A pair of small musical instrument with projection at the back side of the central place
Kumbhar	:	Potter
Kundali/Dahan Dandasi	:	Pincers/Fork held in right hand
Kunda	:	Hand driven wooden lathe
Mali	:	Florist
Matha	:	Process of finishing by light hammering
Nehi	:	Iron anvil
Nihani/Nihan	:	Scraper
Nikhilotkal Kansari samaj	:	All Orissa Kansari Community
Parasa/Parsuni	:	Bigger size cup used to serve food from rice vessel to plate or bowl

Pasia	:	Helper engaged in miscellaneous work (Specially in beating process)
Pathara	:	Stone anvil
Ranga	:	Tin pewter
Sal-ankuri	:	A pointed bend iron rod with wood handle used for stirring the molten material in earthen pot.
Sandhasi	:	Pincers/Fork
Sankhari	:	Bangle maker
Sahe Thana Mahasabha	:	General meeting of regional Kansari Community
Seva	:	Duties/Service
Silpi	:	Craftsman
Sutradhar	:	Carpenter
Swarnakar	:	Goldsmith
Tadgat	:	Water tank for quenching hot products
Tamara Bisoi Seva	:	The man who plays copper bugle in the temple
Tamrakar	:	Coppersmith
Tambera	:	Coppersmith
Tanti	:	Weaver
Tashu	:	Rice head
Thali	:	Plate or tray
Thalia	:	Saucer or quarter plate
Thana Bhai	:	Member of regional Caste/Community
Thana Pati	:	The head man of Area/Regional Kansari caste committee
Thana Sabha/Anchal Samiti	:	Regional Kansari committee
Thana Mahasabha	:	Regional Kansari Committee meeting

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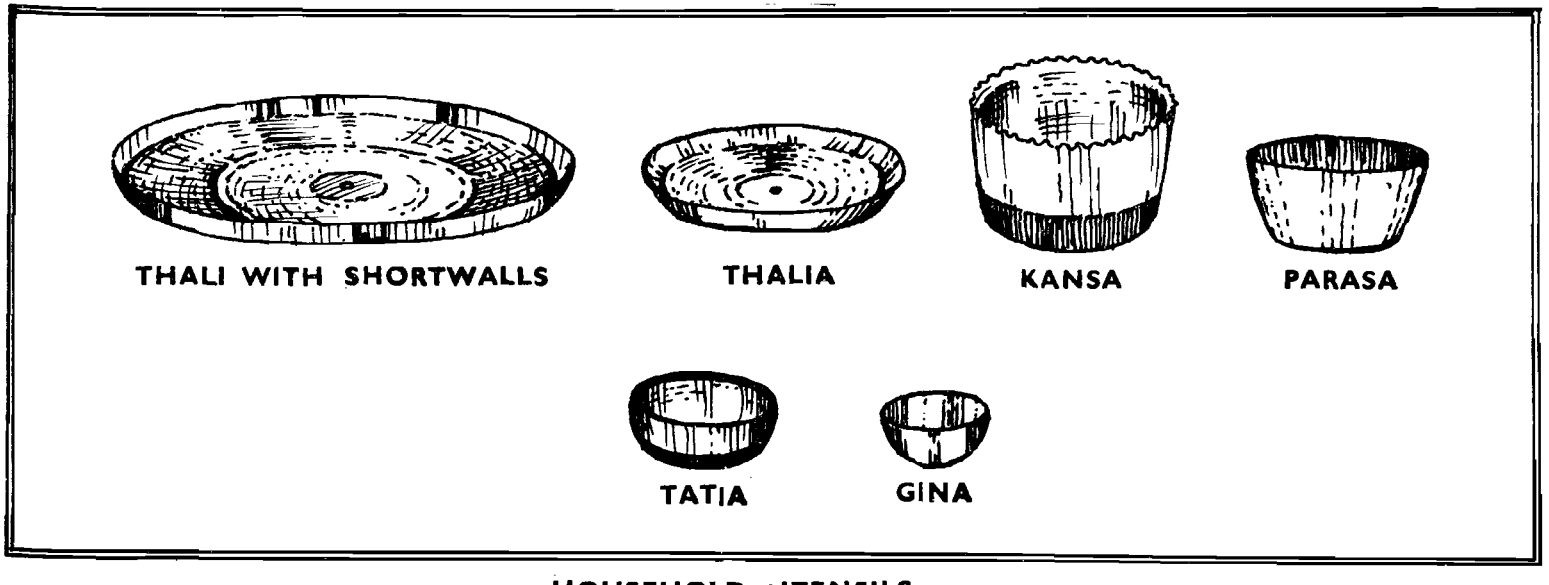
3. Arts and Craft of Orissa Edited by Basudeb Sahoo.

4. 1967 : Survey of Traditional Crafts, Orissa 1961 Census.

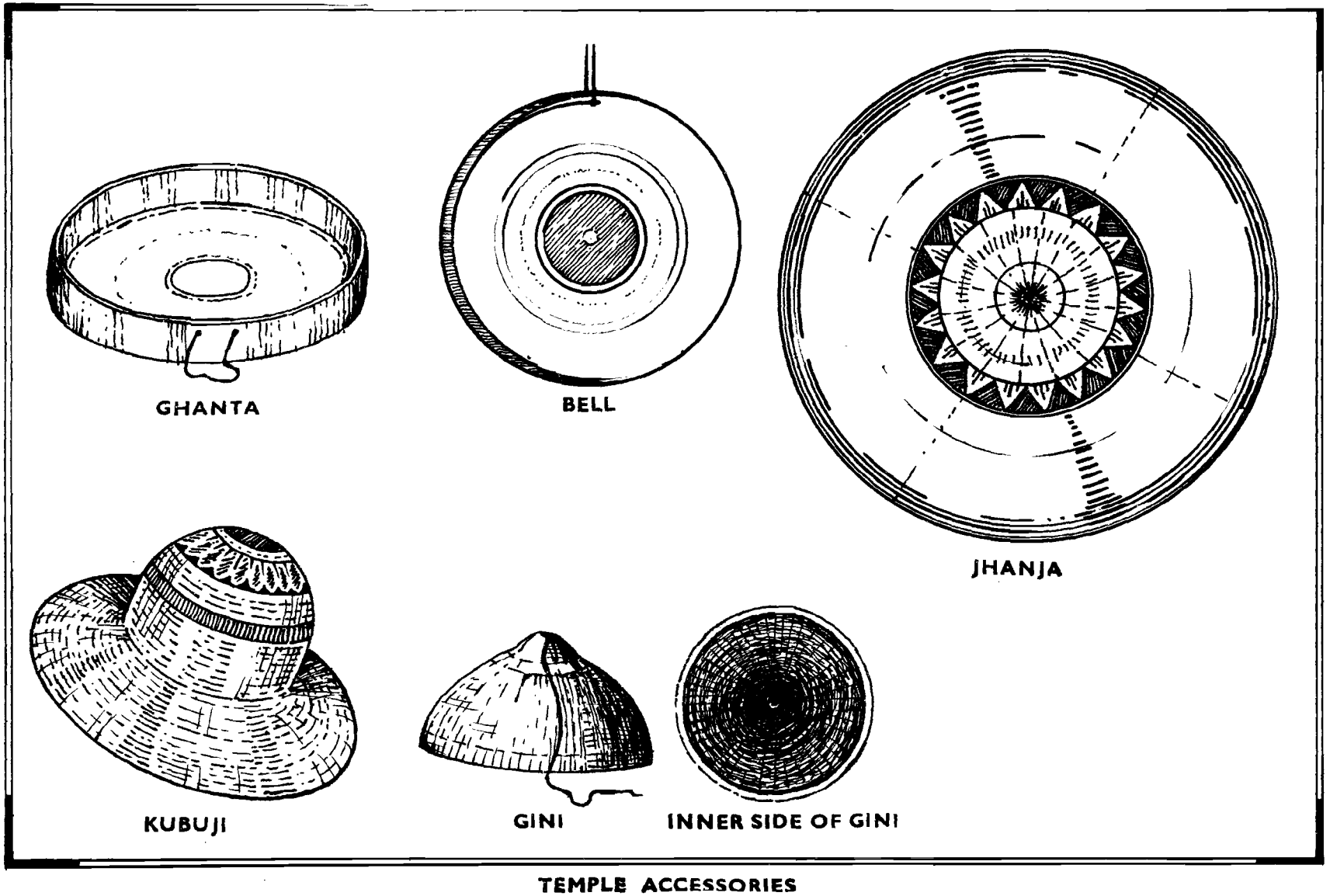
5. Indian Metal work by Jamila Brijbhusan

FIG. I



HOUSEHOLD UTENSILS

FIG. 2

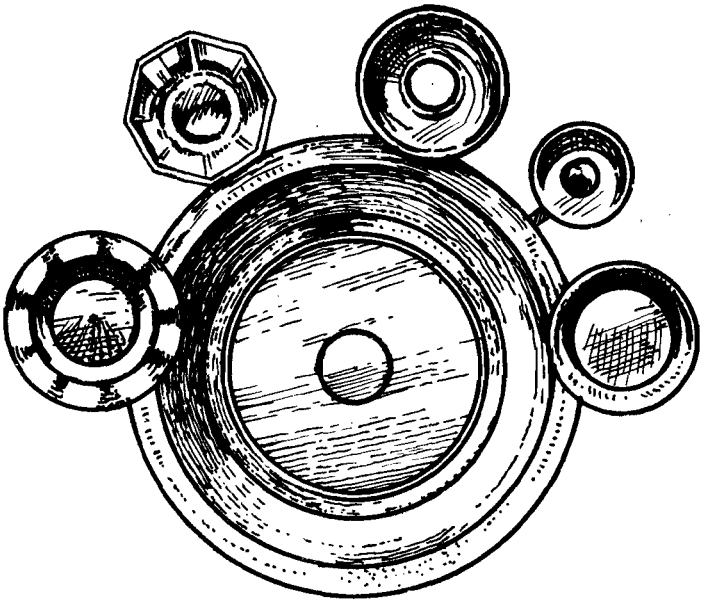


TEMPLE ACCESSORIES

FIG. 3

ENGRAVING ON PLATE

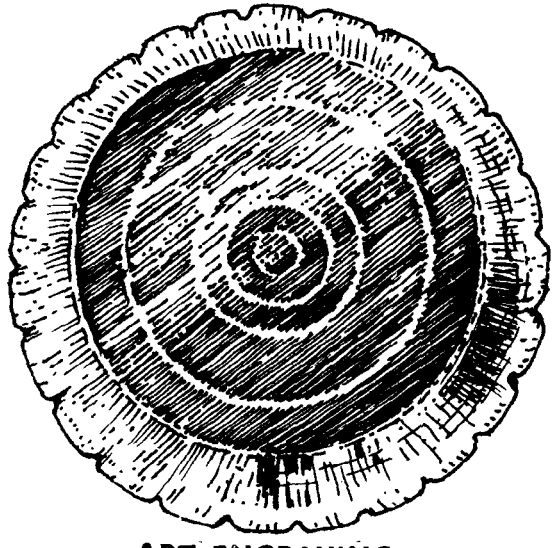
ENGRAVING ON PLATE



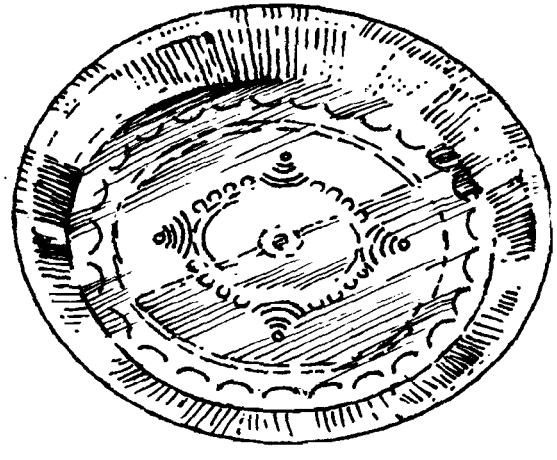
THA-SAJA
(Plate fitted with curry cups)

FIG.4

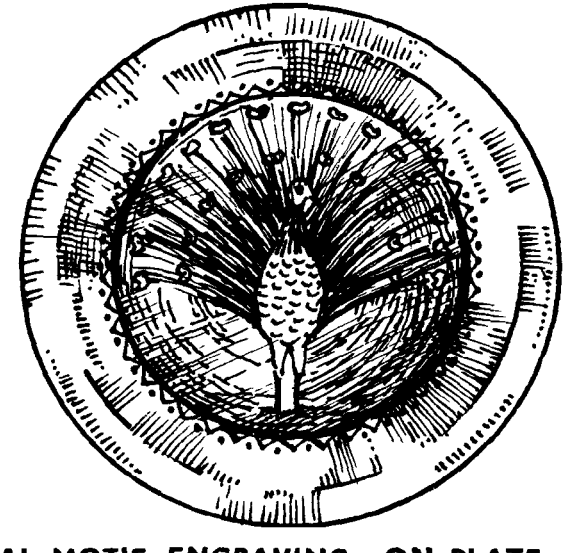
FLORAL ENGRAVING ON PLATE



ART ENGRAVING



RAKAM THALI



ANIMAL MOTIF ENGRAVING ON PLATE

FIG. 5

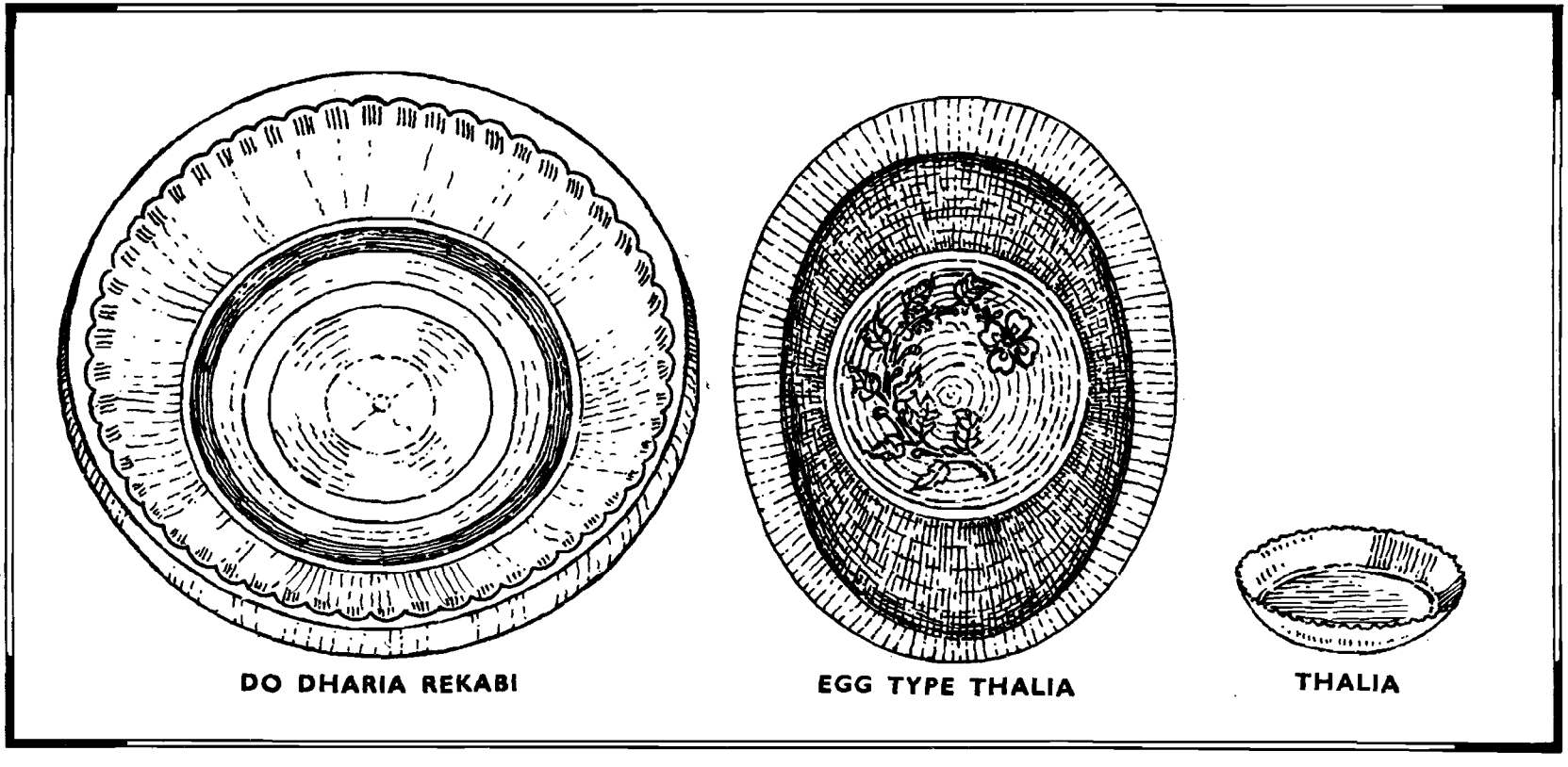


FIG. 6

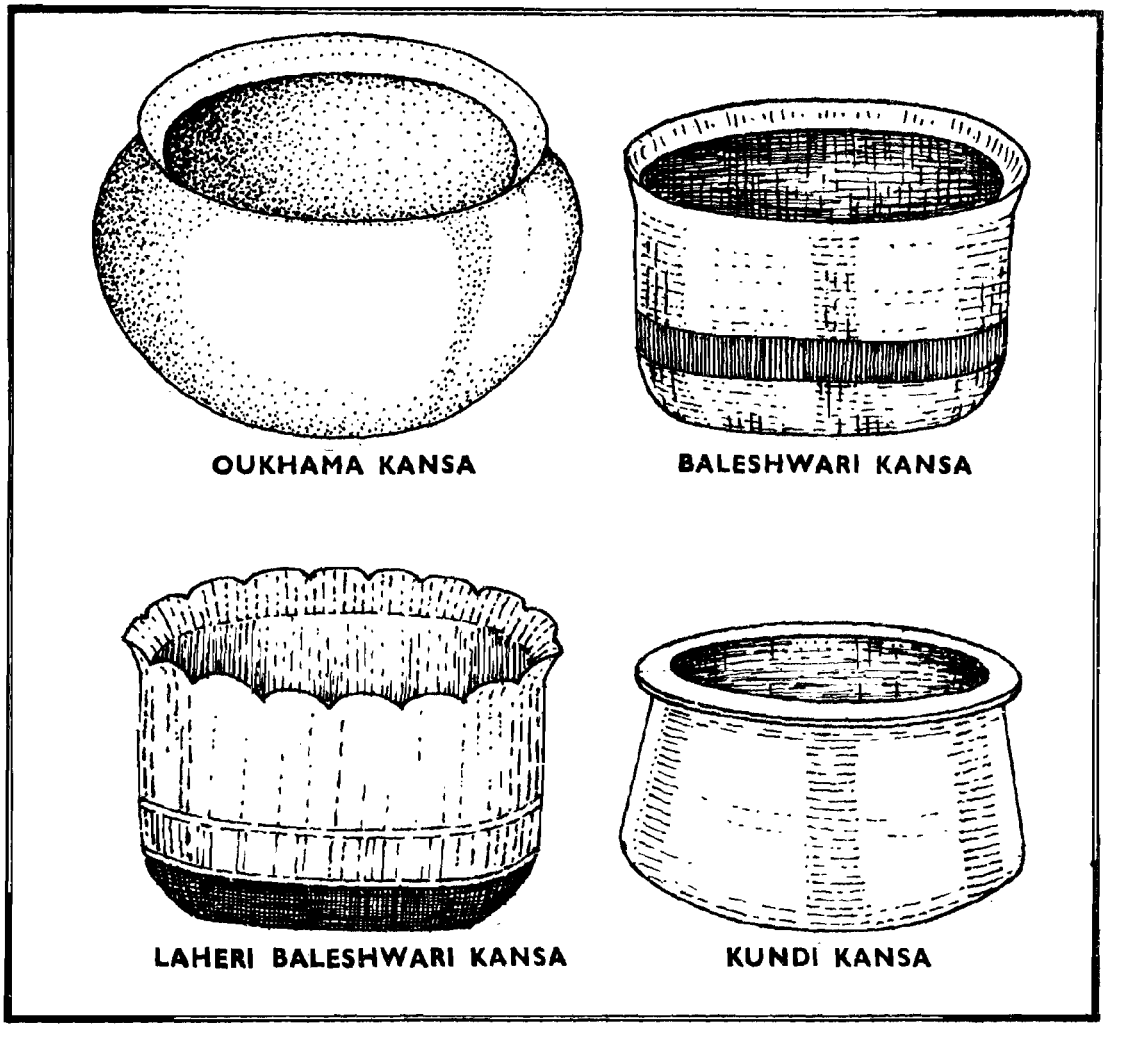

OUKHAMA KANSA
BALESHWARI KANSA
LAHERI BALESHWARI KANSA
KUNDI KANSA

FIG. 7

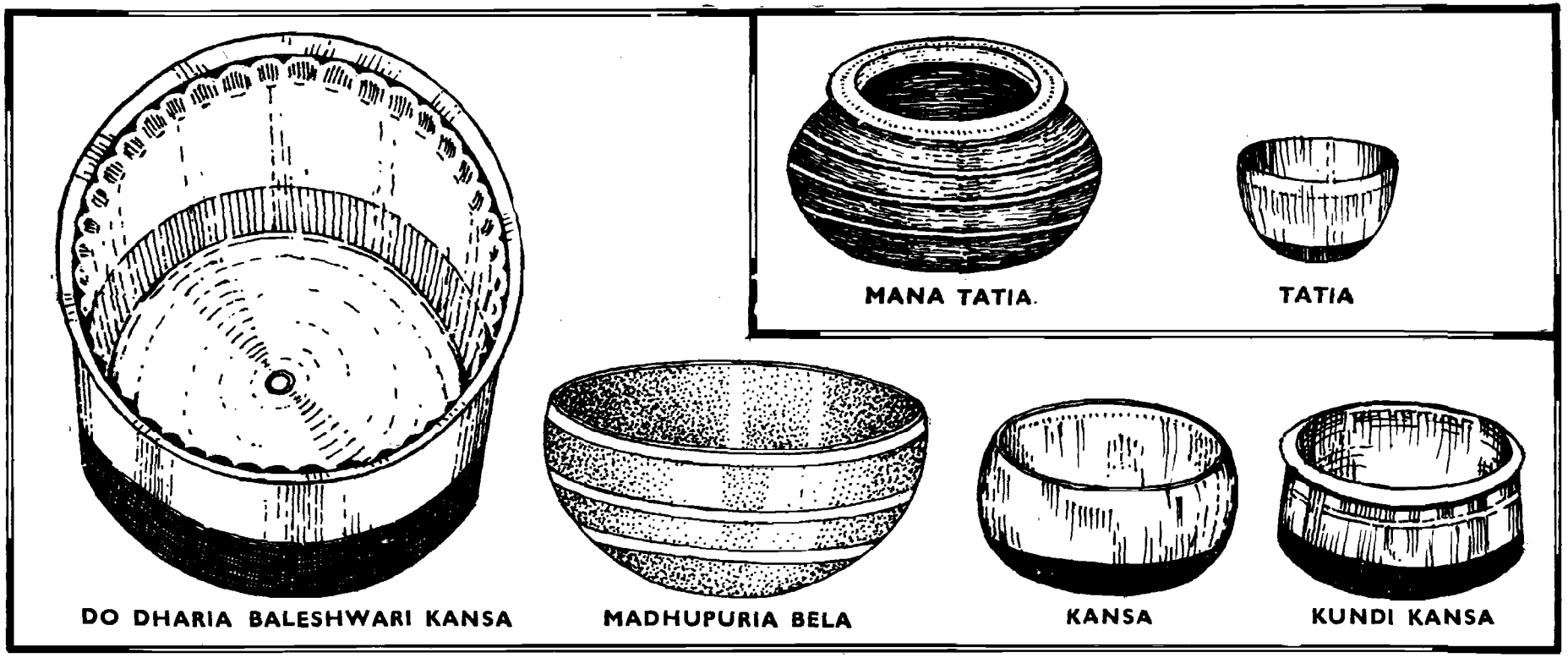
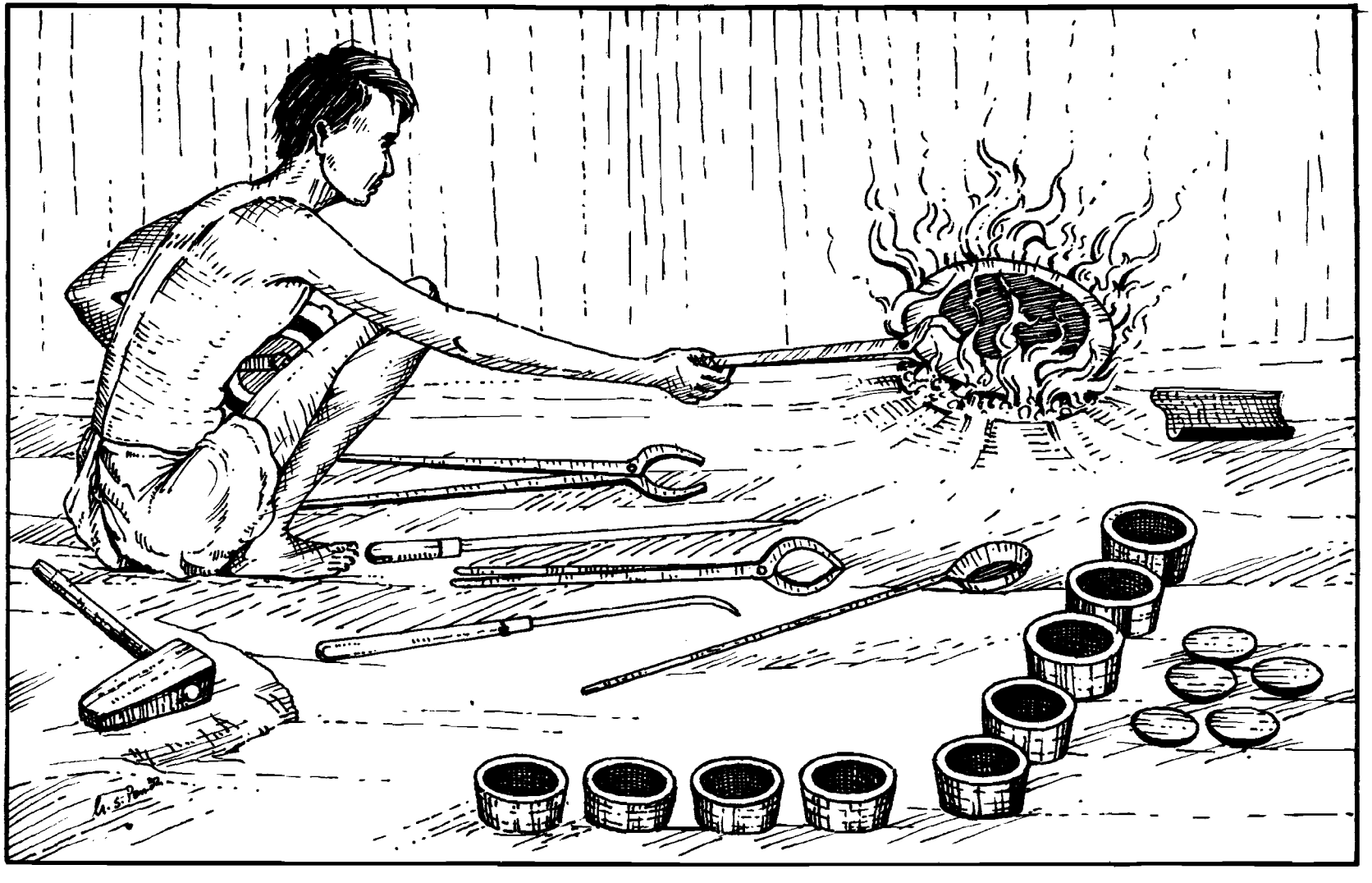
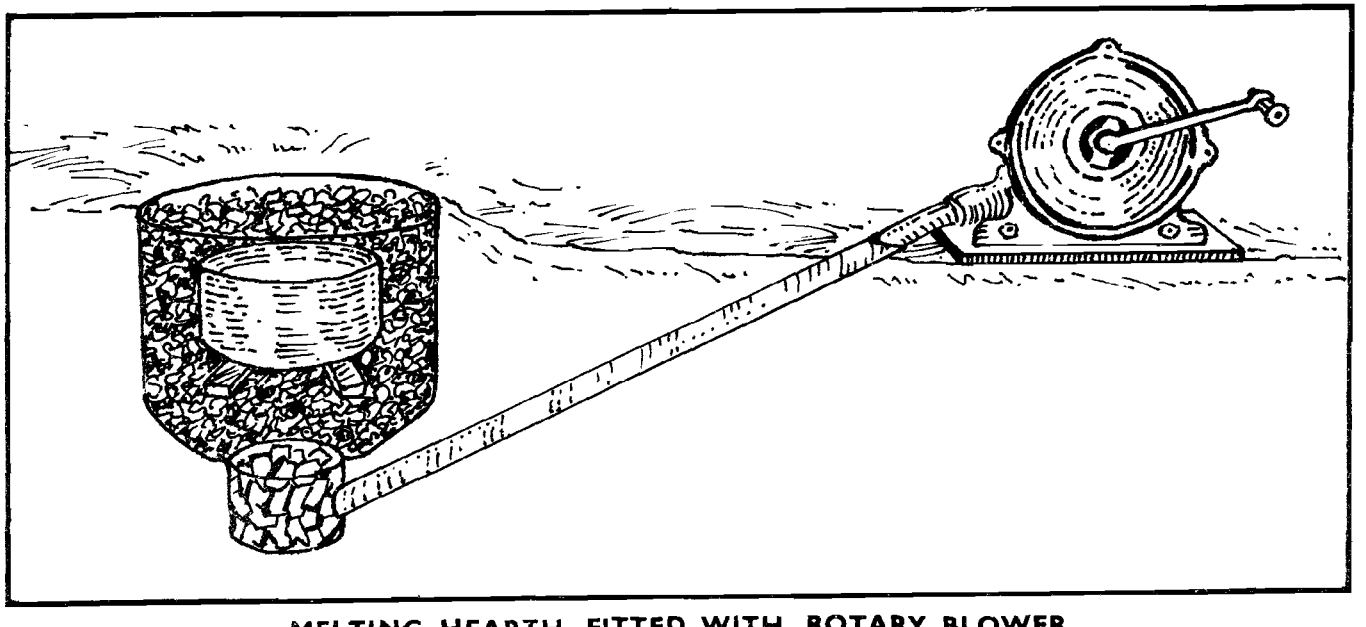

MANA TATIA.
TATIA
DO DHARIA BALESHWARI KANSA
MADHUPURIA BELA
KANSA
KUNDI KANSA

FIG. 8



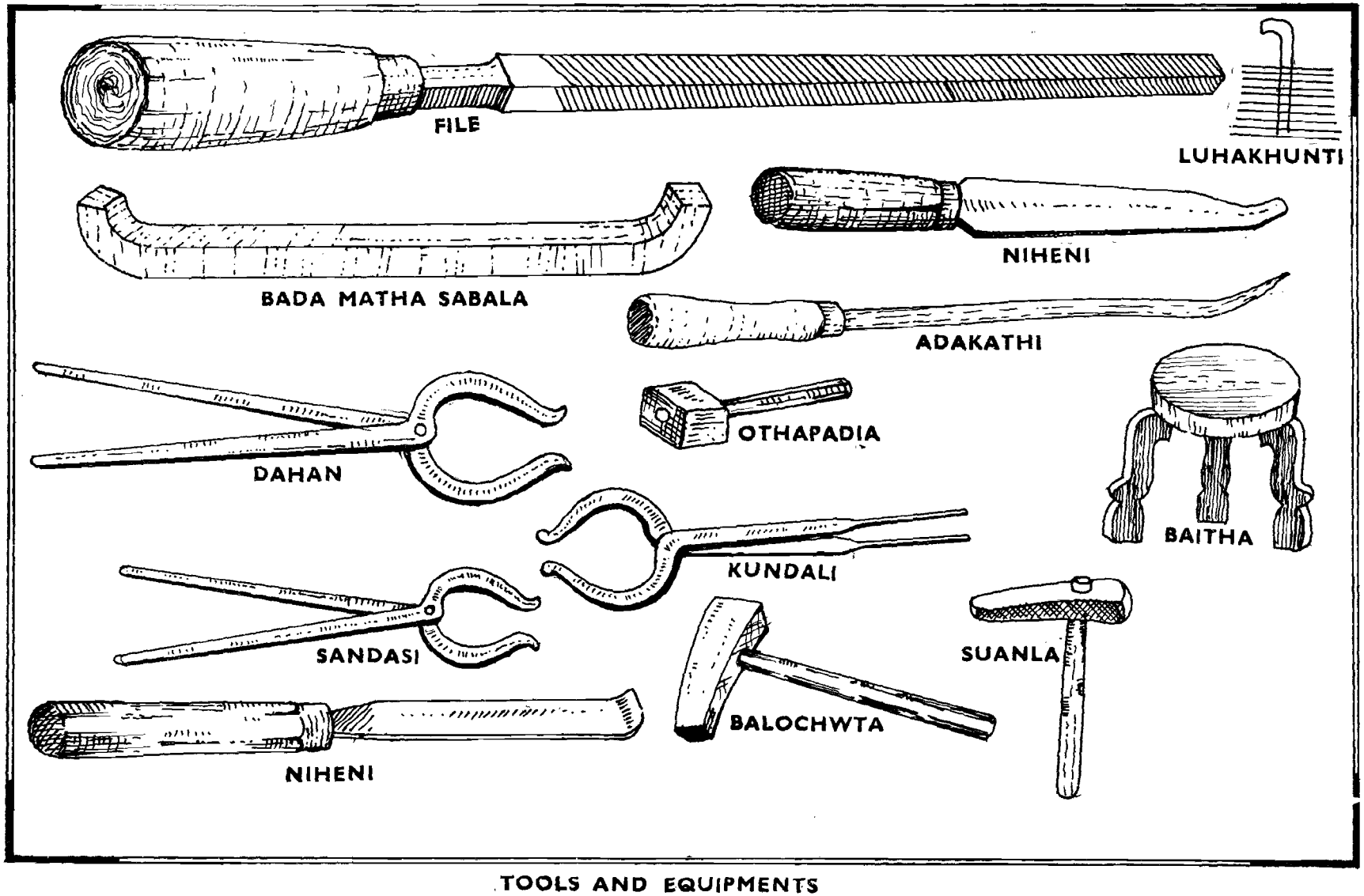
HEATING OF BALAH AT SALGHAR

FIG. 9



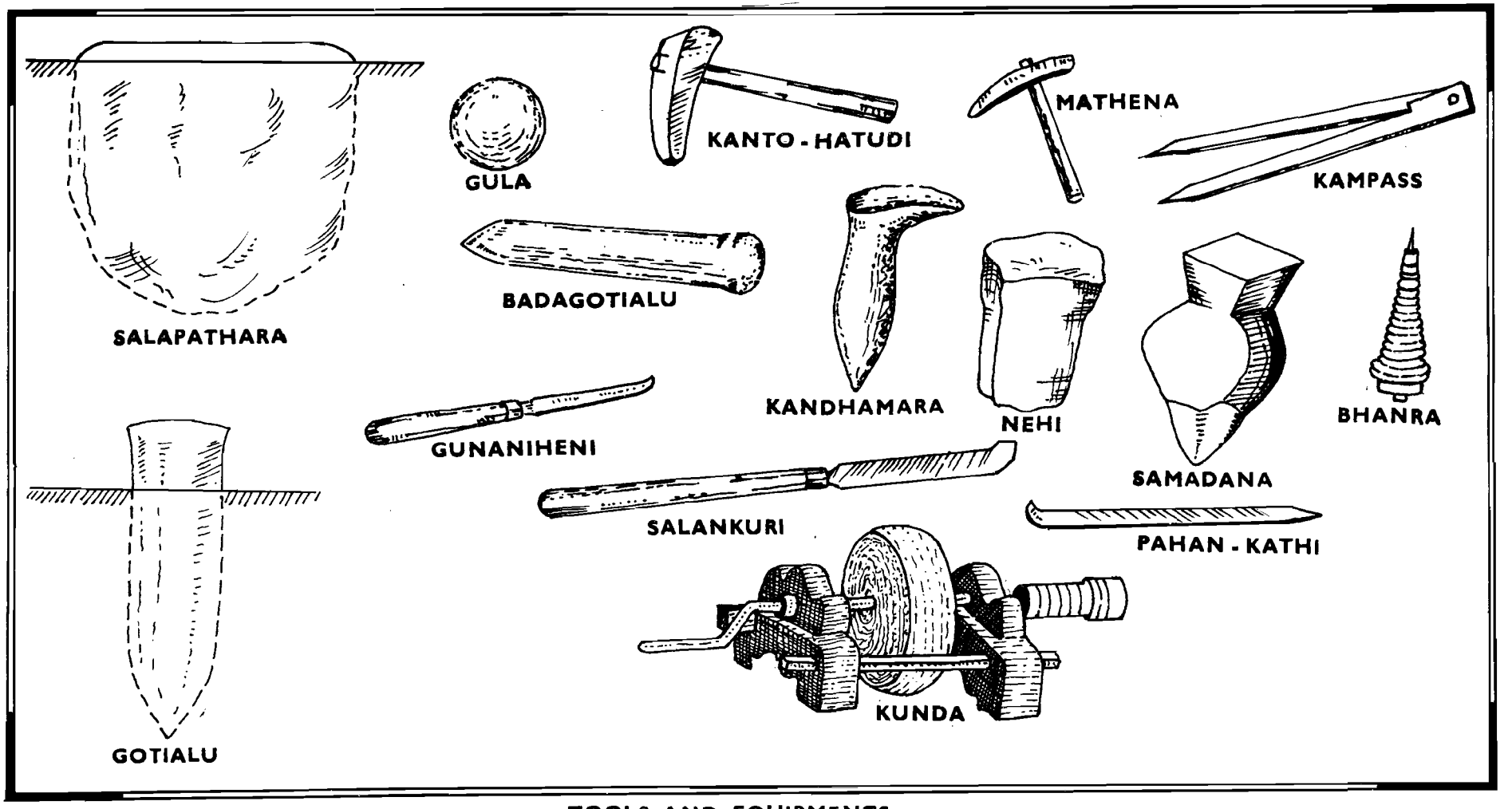
MELTING HEARTH FITTED WITH ROTARY BLOWER

FIG. 10



TOOLS AND EQUIPMENTS

FIG.11



TOOLS AND EQUIPMENTS

FIG. 12

BEATING PROCESS IN OPERATION
1-GARHA 2-KORA 3-BHATIA 4- PASIA

FIG. 13

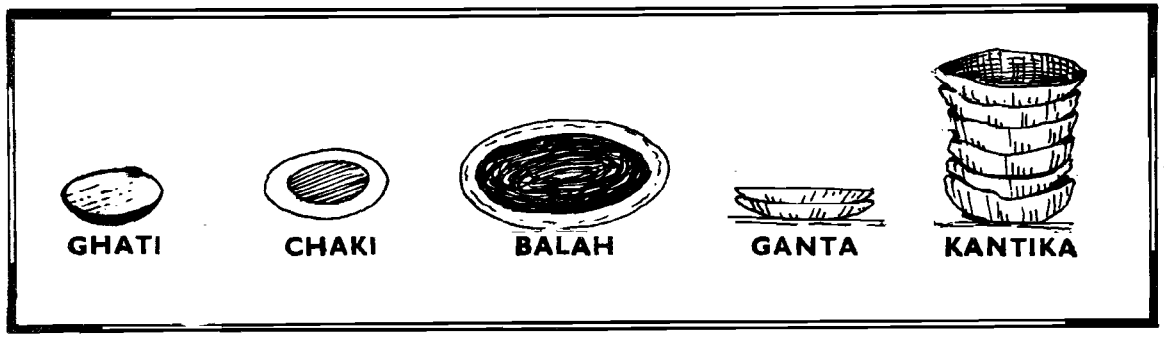
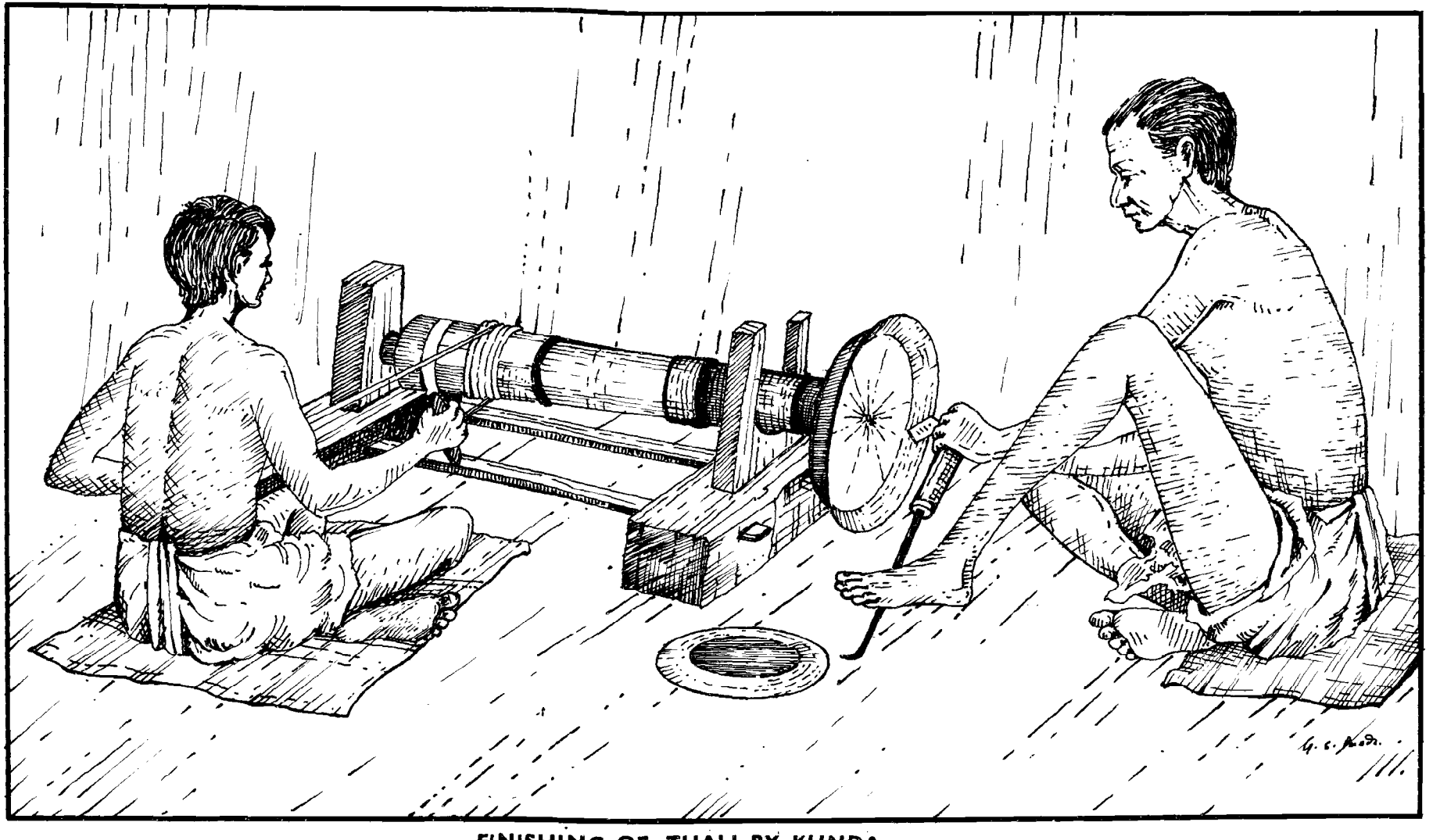


FIG. 14



FINISHING OF THALI BY KUNDA