



Bell-Metal Craft

Compiled by:-



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1. DISTRICT MAP OF NAYAGARH:



Kantilo is situated at a distance of 25kms from Nayagarh on the bank of river 'Mahanadi'. The temple of Lord Nilamadhab, Lord Narayani and the senic beauty attracts the tourists. It is also famous for its Brass and Bell-metal not only in India but also abroad.

BELL METAL CRAFT

2. INTRODUCTION:-

Bell metal is dominantly used for making cooking ware, which is now supplemented with some decorative items. Orissa is the preserve of the 'Kansari' community, experts at this particular craft. The metal is so called because the sound that it generates on hitting is similar to the sound of a bell. This also explains why this metal is used to make 'ghantas' or bells for temples. The reason for traditionally making cooking ware and other kitchen ware from the bell-metal alloy is that this alloy has several medicinal properties, which the food or water kept in them acquires. These medicinal properties are derived from copper and zinc which are dominantly present in the bell-metal alloy. It is believed that regular use of these vessels can have long term effects towards preventing and relieving several ailments like, gastric, diabetics, allergies etc. The artisans who make bell-metal cooking ware also make items of brass and copper, however, bell-metal ware remain their specialty.

It is interesting to note that there is strong sense of community among these artisans, they believe in the notion of sharing resources rather than competing for them, the artisans in each village specializes of only a particular item. An artisan who makes bowls is of course equipped to make plates and vice versa. However, they prefer to specialize in one particular item, and experiment and innovate with shapes, textures and finishes.

3. CRAFT TRADITION:-

Bell-metal has a great craft tradition which can be linked to lord Jagannath residing at Puri. The knowledge of making bell-metal products has been passed down from generation to generations. Bell metal, which is dominantly a combination of copper and zinc, is considered to be a '*shudh*' or pure metal; this explains why utensils used at the Jagannath temple are only bell-metal utensils.

It is interesting to note that when a girl is married of this community, bell-metal ware forms an important part of her trousseau.

The local name for bell-metal is '*kansa*' and the artisans who, before sunrise, give shape to molten bell-metal in order to make attractive utensils by their own hands through exhaustive manual labour are known as 'kansari'. There is a reason why the kansari people start working much before the sunrise. The process of heating and beating the metal to make utensils generates so much heat that it becomes impossible for the craftsmen to carry on the work after mid-morning.

Traditionally, kansari people stay close to water bodies, as in the earlier days boat seemed the only mode of transportation. Also, there is so much of heat generated that water was needed essentially to cool down.

4. STUDY AREA COVERED: BELL-METAL CRAFT AT KANTILO:-

Kantilo is located on the banks of the river 'Mahanadi'. From time immemorial, the metal craft particularly that of brass and bell-metal has been in practice in Kantilo; a place famous by its metal craft and for the temple of lord Neela Madhab, the origin of Lord Jagannath. The Kansari people were brought here from 'Kanya Kubaja' by the 'Gajapati Maharaja' of Puri during 1804, as legend says, in order to supply ornamental, durable and mineable brass and bell-metal utensils for lord Jagannath's daily use.

Kansaries continued their stay at Kantilo due to abundance of natural resources like water, charcoal, metal and navigation available here. Kantilo is famous for its metal craft not only in India but also in abroad.

5. RAW-MATERIALS:-

Bell metal is made from a combination of copper, zinc, tin, iron and mercury. 1kg of copper is mixed with 270-300gms of tin, 50gms of zinc, 5gms of iron and a pinch of mercury. The metals are mixed together and worked into ingots. The craftsmen buy their raw-materials from the local 'mahajan' in a bulk (approx 15-20kgs) which lasts them for 3-4 days.



Ingots of different sizes

6. TOOLS:-

Hathoda (hammer), 2 types of shanwashi (tong) are used, one is small and the other one is big, cutter, pittini, chenni, puaro (iron wedge).



7. PROCESS:-

After the different kinds of metals are mixed together and worked into ingots, the ingots are heated to make them malleable, and are then beaten into the desired shape; the size of the ingots differs with different products. The process of heating the metal alloy and beating it further into shape continues till the required shape and size have been achieved.



Heating the ingots

The metal is beaten with an iron hammer that is usually between 500-700gms in weight. Usually 4 ingots are taken one of top of the other in a set for the process of heating and beating the metal and later taken out one after the other.



Beating the ingots



Removing the ingots one by one



Bell-metal ware ready to be polished

After the required shape has been created, the bell metal item is left to cool. The colour of the ware is sooty black. Thereafter, coal-tar is applied at the bottom of the vessel and is then stuck onto the polishing machine.



Polishing tools

Manually operated polishing machine





Application of coal tar at the bottom of the ware



Polishing of the ware

Though the outside is most often left a natural sooty black, the inside surface of the cooking ware is scratched on the polishing machine and the black coating is peeled off. A metallic finish, a warm yellow-gold colour is thus achieved. This craft is highly labour intensive, at a time about four craftsmen work in making just one product.

Unlike other cast metal objects, the beaten kind of metal ware cannot break; it will bend if extreme heat or pressure is applied to it but the process of beating enhances its malleability and tensile strength to a great extent. The only points along which a beaten cooking vessel can be broken are along the welding lines.



Polishing is mostly done on the inside of bell-metal ware

8. PRICING:-

Bell metal ware are quite expensive, with prices ranging from Rs 50/- to Rs5000/. Pricing of bell-metal cooking ware is done according to the weight of product and not according to the size. The present day cost of bell-metal per kilogram is about Rs 250/- The total cost of a product includes 75% of labour cost besides the other variables taken into consideration while costing.

(All prices mentioned are with respect to October 2004)

9. MARKET:-

For the craftsmen the local mahajan is his market. The craftsman buys his raw-materials from the mahajan and sells the final product to the mahajan. There is no proper exhibiting or showroom facility for these products. These craftsmen have also not received any help from government in the form of any fund or grant. The craftsmen of Kantilo are very poor and neglected by the society and are in the list of backwards even though the existence of super intellectual artistic knowledge in the craft lies with these artisans. Due to the lack of facilities available to them, the number of bell-metal artisans is continuously decreasing.

9. CHANGES OVER THE YEARS:-

9.1 TECHNOLOGICAL CHANGES:

There have not been many technological changes in this field. However, new mechanical blowers to blow are into the kiln having come into the picture. Also earlier, polishing was done by scratching the ware with a knife-like instrument called 'neheni' in the local language. Nowadays, new machines have come in, on which the ware is stuck with the help of coal-tar and then polished.

9.2 DESIGN:

Earlier the products made out of the bell-metal were rather plain and simple but these days some kind of ornamentation has also started taking place. Traditionally only cooking ware was made out of this metal but now or items on order and decorative pieces are also being made. These days few design stores have also ventured in, KAARU at Delhi, is one such example, displays many of the bell-metal products made in Kantilo.

9.3 MARKET:

There has not been much of a market increase for the Kansari people. As it is an expensive product which has various cheaper substitutes available, it becomes difficult for the craftsmen to create a steady market for his products.

10. PRODUCT RANGE:-

As is apparent, the primary product range made out of bell-metal artisans is cooking ware, usually in the shape of pots with a wide bottom, plates in the style of traditional Indian thali etc. The modern product range include decorative items, decorated plates with relief work done on them, bowls of various sizes and shapes, glasses, water jugs, specially designed 'pooja thalis' etc. Products made for exhibitions are made keeping in mind the correct proportion and are polished twice to get an extra shine.



10.1 Thali's of different sizes



10.2 'Handa' or a big bowl



10.3 Plates for exhibitions

11. GLOSSARY:-

CHENNI	: tool used for polishing bell-metal ware
GHANTA	: bell
HATHODA	: hammer
KANSA	: local name for bell-metal
KANSARI	: community of craftsmen working with bell-metal
MAHAJAN	: money lenders
NEHENI	: knife like instrument used for scratching the metal ware to bring it to shine
PITTNI	: tool used for polishing bell-metal ware
PUARO	: iron wedge
PUJA THALI	: traditional Indian plates made especially for prayers
SHANWASHI	: tong
SHUDH	: pure

12. REFERENCE:-

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Secondary sources

Internet sites:

www.craftrevivaltrust.org
www.handicraftwholesalers.com

13. INTERVIEW WITH THE MASTER CRAFTSMEN:-

Name : Raj Kishore Sahoo
Age : 52 years old
Educational Qualification : 7th STD
Members in family : Wife, 2 daughters and 2 sons
Income : Rs.1200-1500 per month

After 7th STD he joined his father in the making of bell metal articles. He has been working since past 30 years. His sons too are carrying on this tradition. Though he does impeccable work on this metal, he faces a number of health problems due to the working atmosphere. He has breathing problems on constant exposure to the open furnace. Most of the artisans are unaware of the health hazards, and even if they are aware of it, they overlook it because this occupation is their only source of livelihood. However few artisans have ventured into other businesses like opening up shoe shops, godrej cupboard sales etc. (All prices mentioned are with respect to October 2004)

14. KANSARI SAMAJ :-

Kansari Samaj was set up in 1973, in Kantilo, Orissa, in order to promote the well-being of the kansari or Bell Metal artisans. This organization has about 1000 artisans under it. The aims and the objectives of the 'Kansari Samaj' are as follows:-

- a) To create unity among the Kansari artisans,
- b) To encourage their ability,
- c) To develop both craft as well as the socio economic conditions of the Kansari artisans
- d) To export Brass and Bell Metal products,
- e) To develop proper marketing strategies, and
- f) To receive a genuine price of the products under Brass and Bell Metal products.

Although this organization was set up for a noble cause, but due to paucity of funds, inefficiency to create a demand for Bell Metal products, non-availability of proper marketing and servicing extension centers, have made the organization almost non-functionary.