



The Ancient Craft of Dhokra: A case study at Bikna and Dariapur in West Bengal

Subhrajit Chatterjee

*Researcher, Dept. of Sociology (The University of Burdwan) and Teacher (Sociology),
Usatpur S. High School, East Medinipur, W.B., India*

Abstract

Dokra metal casting is one of the oldest traditional techniques of metal casting in India. The word Dokra was used to specify a group of craftsmen of traveling type, scattered over Andhra Pradesh, Orissa, Madhya Pradesh, Chhattisgarh, Jharkhand, and West Bengal and were identified by their beautifully fashioned and ornamented metal goods. The craftsmen have later on established in some areas of Bankura, Bardwan, and Midnapur districts of West Bengal parting their nomadic nature. Of all craftsmen in West Bengal, these metal smiths are generally most mistreated as social outcasts. In current years, this eternal tradition of wonderfully fashioned, decorated and handcrafted goods of Dokra artisans are in immense command in domestic and foreign marketplace because of its primitive plainness and enthralling folk motifs. This is despite the fact that the demand for their products is very high including in international markets, the dokra artisans of Bikna and Dariapur are facing a lot of problems. To highlight the basic problems of dokra crafts and artisans is the theme of this article.

Key Words: *Dokra craft, The Cire Perdue Technique.*

Introduction: Dokra is one of the earliest known methods of nonferrous metal casting known to human civilization. This sort of metal casting has been used in India for over 4,000 years and is still used. Dokra is the art of metal crafts amongst some aboriginal tribes of eastern India. The tribes were initially nomadic in nature. This nomadic group of people finally settled in the different tribal parts of Indian provinces like Andhra Pradesh, Orissa, Madhya Pradesh, Chhattisgarh, Jharkhand, and West Bengal. In Bengal the groups are found in the tribal regions of Purulia, Bankura, Birbhum, Bardhaman/Burdwan and Medinipur. The product of dokra artisans are in great demand in domestic and foreign markets because of primitive simplicity, enchanting folk motifs and forceful form. Its motifs are mostly drawn from folk culture. Untrained in formal institutions, the skill and aesthetic sense of these people are the result of the innate and instinctive creative sense evolved over thousands of years. Although there is a small but increasing demand for dhokra work from urban Indian families, as well as in the tourist trade, the craft is threatened with extinction. Most of the remaining dhokra communities are extremely poor, and their economic condition has caused many families to leave the craft to find wage employment in local manufacturing centre or in metropolitan centre such as Kolkata (Calcutta).

Methodology: This study is primarily empirical. But both primary and secondary data have been effectively used in this study. Secondary data were collected from various documents such as books, magazines, journals, old research papers as well as from internet. Primary data were collected from two dokra villages in two districts of West Bengal. These are Bikna in Bankura district and Dariapur in Burdwan district. The techniques of primary data collection were Observation method and Unstructured Interview Schedule.

Dokra craft: Dokra (also spelt Dhokra) structure of metal casting is precisely known as 'cire perdue' or lost-wax casting procedure. Dokra is the art of metal crafts amongst some aboriginal tribes of eastern India. The tribes were initially nomadic in nature. This nomadic group of people finally settled in the different tribal parts of Indian provinces like Andhra Pradesh, Orissa, Madhya Pradesh,

Chhattisgarh, Jharkhand, and West Bengal. In Bengal the groups are found in the tribal regions of Purulia, Bankura, Birbhum, Bardhaman/Burdwan and Medinipur. The craft of lost-wax casting is an ancient one in India, and appears to have existed in an unbroken tradition from the earliest days of settled civilization in the sub-continent. The traditional themes of these cast metal sculptures include images of Hindu Or 'tribal' gods and goddesses (like Goddess Durga, Laxmi, Saraswati and Lord Sri Krishna, Shiva, Kartik, Ganesh etc.), bowls, figures of people or deities riding elephants, musicians, horse and rider figures, elephants, cattle, and other figures of people, animals, and birds, tribal jewelry, tribal doll, lamp, chains, caskets, etc., are highly appreciated .

Some of the pictorial documentation of Dokra craft by the author



Fig.1 Owl



Fig.2 Elephant



Fig.3 Tribal ornament



Fig.4 Hindu Goddess Durga

The Cire Perdue Technique : Dokra artists use a very interesting method to cast metal into the craft, a technique that is known as 'Cire Perdue' or 'lost wax' process. This technique is almost as old as settled civilization. There are two main processes of lost wax casting: solid casting, and hollow casting. While the former is predominant in the south of India the latter is more common in Central and Eastern India. Solid casting does not use a clay core but instead a solid piece of wax to create the mould; hollow casting is the more traditional method and uses the clay core. Artisans of Bikna and Dariapur use hollow casting method.

Raw materials: Brass metal, Bell metal, Bees wax (mohum), Clay bees-wax threads, Coal, mustard oil, 'dhuna' (extracted from the Sal tree).

Tools : Furnace (bhatti) , Sulka (to give impressions) , Small chisel (nihan) , Big chisel (batani) , Hammer , Graphite container to melt brass (kui) , Tongs (chimta)

The Technique:

It involves six stages¹:-

Core-making: A clay core is made, slightly smaller than the final intended size of the artifact. The core may be hardened by firing or sun-drying;

Modelling: A detailed wax model is built up around the core, to the thickness of metal desired in the finished object;

Moulding: The wax model is coated with a thin layer of very fine clay, which will form an impression of every detail of the model. When this layer is dry and hard, further layers of clay are added to the mould. One or more pouring channels are provided, through which molten metal can run to fill the mould;

De-waxing: The mould is pre-heated to melt the wax, and the molten wax is poured out (it may be recovered for subsequent re-use). This leaves a cavity which has the exact size, shape and surface contours of the intended artifact;

Casting: Molten metal is poured into the cavity and the mould left to cool;

Finishing: The artifact is broken out of the mould. Traces of baked clay are removed and surface blemishes and defects repaired.

Problems Facing the Dokra craft and Dokra artisans: Unique feature of 'Dokra' art is that no two pieces are identical, reason lies in the fact that each piece is hand-made and hence, is distinct. This art form is widely appreciated and is wooing art lovers across the globe. The products have a world wide appeal owing to their primitive simplicity, enchanting folk motifs and forceful form. Dokra art is used for figurines and statues while dokra art jewelry is also very famous and becoming popular among younger generation. The main hallmark of Dokra craft is enchanting folk motif, primitive simplicity, a rustic beauty and imaginative designs and patterns. The distinctive appearance of Dokra craft is due to its antique and stark finish and rustic look - both of which are widely coveted in domestic markets and in global international art markets. There is emerging a new market in United States and UK. The fashion stores of Milan, Paris, London are looking for these unique Dhokra articles. With changing times, e-marketing has become very effective. A number of e-commerce sites have Dokra products on sale. The Dokra artisans have good skill and also put in a lot of hard work. But they miss out on having exposure to the change in trends, marketing hence over the years have not been able to achieve a stable position. According to Sourish Bhattacharya², "*The Dokra craftsmen of Bengal are probably facing the most wretched condition among all of the Dokra artisans of the country. Though they cultivate a valuable treasure of art, they are least recognized as honorable persons among all the other communities of craftsmen. These socially outcast people are also the poorest among the whole metal smith communities. They are most technologically backward section among all of them. They are so poor they cannot even manage a one square meal of food everyday for themselves. Even for their abject caste status they suffer a lot of humiliation and rebuke which force them to leave this job and many of them have diverted to other occupation to get relieved from this eternal shame.*" Pravas Sen³ argued that, "*Perhaps the poorest craft group of West Bengal, the Dhokras are the most interesting and creative. In recent years, under the pressure of all embracing industrialization and changing social values they have been forced by the loss of their natural rural market to diversify their products and are now seeking, with the help of the government and some voluntary agencies, a market among urban sophisticates, as creators of decorative ware. These efforts have met with only limited success.*" This is despite the fact that the demand for their products is very high including in international markets, the dokra artisans of Bikna and Dariapur are facing a lot of problems. These are:

1. The Dokra Kamaras suffer from poverty, mal-nutrition, and sanitation. High instance of liquor addiction is prevalent. Illiteracy is also a major reason of their state.
2. The increasing price of raw material is forcing the dokra artisans to be less interested in creating these articles with same vigour.
3. Rising price of the end product is attracting less buyers which is a disappointing matter for these artisans.
4. Lack of knowledge about the new designs that are being experimented all over the world, lack of inspiration to work with something new, lack of encouragement to work with innovative ideas are great hindrance to adapting modernizations and keeping pace with contemporary demand.
5. Dokra crafts, which are produced with traditional skill, are under threat of steep decline because of competition from the cheaper machine made local substitutes and imports, which give greater uniformity and better finish.

6. All weather shade is not there. During monsoon it becomes difficult for them to work.
7. The majority of artisans are not aware about various new schemes like loan at minimum rates, free tools and chemical, work shed-cum-housing facilities etc provided by government and NGOs. Illiteracy often makes them more vulnerable.
8. Like most traditional crafts people, the dokra artisans of Bikna and Dariapur have no formal system of apprenticeship. Craft training as such does not exist.
9. Following the same primitive techniques and having no access to modern technology and infrastructure, is causing a delay in production which is unmatched with this fast moving age.
10. Dokra artisans of Bikna and Dariapur use traditional furnace. According to Kochhar & Smith⁴—
“The traditional furnace was inefficient in two ways: Firstly it was wasteful on fuel. Each furnace was specially built for a single batch production. Fuel was wasted heating the furnace and the moulds of casting temperature, and these was no gain from multiple firing in the same oven, thereby conserving heat. Again, this would not have been a problem to forest living nomads with ready access to free wood, but was immediately disadvantageous once the dhokra had settled down. Secondly, it was more or less impossible to control the firing temperature of the furnace. This meant that metal, particularly zinc, was lost by sublimation when the moulds were broken open. This could be seen in the colour of the fume after opening. The loss of metal led to serious metallurgical degradation of the brass, as well as being another source of cost inefficiency. Another side effect is that ,many of the people of Bikna suffer from eye problems, probably due to heavy metal irritation.”
11. According to Kochhar & Smith⁵, the fact that the cire perdue process (lost wax casting) followed in Bikna does not permit wax recovery is a significant factor undermining the potential profitability of the craft. The finest medium for cire perdue modeling is, as the name itself would suggest, beeswax (Mom). The Bikna artisans' preferred medium is Dhuna (a mixture of the resin of the sal tree and mustard oil). This is almost as good as wax but rather cheaper. Whereas artisans in other parts of India (notably in Bastar and Tamil Nadu) developed efficient means of wax recovery, the Bankura artisans did not. This added to the uncontrolled costs due to the metallurgical problems associated with the traditional furnace.
12. The artisans face a number of difficulties to get loan from banks which results in unwillingness to get loan from banks and they are attracted to local money lenders who finance them with high interest rate.
13. Globalization has induced expansion of world market of dokra crafts. But the problem is the original artisans are not able to suck the juice of profit rather the intermediaries get the maximum profit by purchasing the craft at a very low price and by selling at a high price on the contrary. The illiterate artists failing to deal with the modern market system take the help of these middle men who pocket the actual surplus. As a result the artisans gradually become poorer though their products become highly demanding in both home and international markets. It has compelled some of the poor artists to shift to and adopt a more viable occupation.
14. Ineffective and unprofessional infrastructure of the cooperatives found at Bikna and Dariapur region gather low profit margin for the artisans. A little more organized approach from cooperatives might have fetched a little more profit to the artisans.
15. Most of the dokra artisans are extremely poor, and their economic condition has caused many families to leave the craft to find wage employment in local manufacturing centres or in metropolitan centres such as Kolkata .
16. There has been some decline in the domestic demand for the dokra products with the change in people's tastes caused by globalization.
17. In the era of globalization and changing the tastes and fashion, different crafts products have been undergoing change and adopted innovation. In market economy, emphasis is given to the consumption pattern of the people. If the customer wants a product, it must be available, even if the social costs are high. So the artists are bringing in changes in different craft products to meet the demands of the people. But the problem arises when originality is lost in the process of innovation. It has been that competition amongst the artisans, use the low quality inputs. As a result, demand of the craft become low.
18. The recent burning problem in front of the dokra artisans is to protect their own cultural identity. During past few years a group of outsider businessmen (who actually not belong to dokra

community) have set up factories where similar kind of products are produced and get traded in various market within and outside India. This actually creates competition for the real artisans who with minimum support of traditional tools and method become unable to compete with those better finished products manufactured at those factories.

Conclusion: The study shows that Dokra artisans face several problems in marketing. In view of shortage of financial resources, advertising publicity cannot be undertaken by artisans. Absence of systematic marketing network has been a discouraging factor in this sector. Hence it is suggested that the government required to play a vital role in solving the marketing problems faced by the artisans. Voluntary associations also need to put sincere effort for the better working condition of the dokra artisans. Care should be taken to ensure that with innovation originality of the craft is truly maintained. The artisans could be taught to innovate and improvise, use better tools and better raw materials. Innovative techniques can be taught to the workers through government sponsored programmes. Care should also be taken to popularize crafts in home markets creating awareness among the home consumers.

Hopefully happy times lie ahead for Dokra crafts and artisans can look forward to a bright future.

References:

1. Smith, David & Kochhar, Rajesh (2004): *The Dhokra Artisans of Bankura and Dariapur, West Bengal: A Case Study and Knowledge Archive of Technological Change in Progress*; Retrieved on 10 march 2015, from <http://rajeshkochhar.com/data/publications/bankura.pdf>
2. *Bhattacharya, Sourish (2011): Dhokra Art and Artists of Bikna: Problems and Prospects. Chitrolekha International Magazine on Art and Design, ISSN 2231-4822, Vol 1, No 2, Kolkata, India.* Retrieved on 10 march 2015, from <http://ibnlive.in.com/news/dokra-craftsmen-left-in-lurch/215066-60-117.html>
3. Sen, P (1994): *Craft of West bengal*, Mapin Publishing, Ahmedabad.
4. Kochhar, Rajesh & Smith, David (2004, sept6): *Dhokra (lost-wax) metal casting craft in eastern India*. Paper presented at WAITRO Conference, Nairobi. Retrieved on 10 march 2015, from <http://rajeshkochhar.com/2008/12/dhokra-lost-wax-metal-casting-craft-in-eastern-india/>
5. Ibid.
