

# **Upliftment of Native Horn & Bone Handicraft by Making the Artisans Socially Sustainable: A Case of Sambhal District**

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## **Abstract**

Handicrafts are expressions of the culture, tradition and heritage of a country and represent the cultural identity of the people involved in it. They in turn can be used as an effective tool in promoting social sustainability as they help in creating more inclusive societies, enhancing the empowerment of citizens, and also expanding employment opportunities for the people today and in the future. This research is based on the horn and bone craft of Sambhal district in Uttar Pradesh and aims towards deriving the ways to uplift the knowledge and skills of the communities and groups involved in order to sustain their lifestyle and livelihood. Indian towns have exemplary inclusive communities due to their heritage which can have a huge potential for their sustainable development in the future. Sambhal art is appreciated all over the world but today this handicraft industry and artisans are facing lots of challenges due to work environment and many other factors. The artisans and craftsmen are migrating to other cities for better work opportunities due to the decline in their traditional craft industry. The low literacy rate of the people and their dependency on the craft for their livelihood has created a threat for the employment and survival of these artisans.

This study will also cover the detailed historical background, tools and techniques of the art and process of horn and bone carving at various production units in Sarai Tarin (Sambhal), also the documentation of tools and techniques involved. Identification of the issues and problems faced by the artisans by conducting interviews and discussions with them. Deriving the methods to uplift the craft from the inferences of the case studies, literature studies & the context study of the region. Research will conclude with various strategies to fulfil the aim.

**Keywords:** Social sustainability, cultural heritage, upliftment, horn & bone craft, artisans

## **Introduction**

India is a country of rich and diverse culture, history and traditions and equally diverse range of crafts & craftsmanship. India has been major producer and supplier of handicrafts products since very long time. Before the industrial development, this art and industry was a potential economic advantage for the country. India's rich cultural diversity and heritage provides a unique and huge resource for developing craft products. Handicrafts industry is one of the important segment for employment but is one of the most decentralized sector in India. Over the years there has been a huge decline in this sector and the artisans are not able to sustain their livelihood which forced them to abandon their craft and shift to other professions.

“According to the United Nations, over the past 30 years, the number of Indian artisans has decreased by 30%, indicating the need to re-invest in artisans to safeguard history, culture and an important source of livelihood.” (Kapur, H., &Mittar, S. 2014).

Sambhal town is famous for its unique kind of horn and bone handicrafts which are produced in Sarai Tarin (4 km from the main city) which are exported to various countries. One of the distinctive features of these handicrafts is that it uses the bones and horns of dead animals, making them environmentally sustainable. Today, about one lakh of the population from this region is associated to this industry. These handicrafts are exported to various countries like Africa, Hong Kong, China, Japan, America, England, Germany, Israel, etc. These handicrafts are appreciated by various western countries, but today the artisans and this industry are facing many challenges because of the exporters. The items are sold for very high rates by these exporters but the artisans are paid a very portion of that amount. Also the craft is diminishing due to the lack of interest, knowledge and skills in the future generation who can take this forward and help in it's sustenance. The artisans of Sambhal work very hard but cannot get benefit & only earn small amount, which cannot improve their condition and it remain same as usual. (Maeed, A. (2002). Handicraft is way of income of the crafts persons and is essential to overall prosperity. But an average artisan has inadequate access to information about markets, buyers, tastes and tools and technologies in manufacturing and also lack of knowledge about use of information technology. (Renu, & Anupama. 2018).

The objectives of this research paper is to study the historical background, tools and techniques of traditional craftsmanship of Sambhal handicraft, to derive the possible methods that can be used to uplift the craft and to analyze the ways in which these methods can be implemented to help in the sustainable development of these artisans.

## Methodology

Methodology adopted includes documentation of historical background of the craft and process of horn and bone carving at various production units in Sarai Tarin (Sambhal), also the documentation of tools and techniques involved. Identification of the issues and problems faced by the artisans by conducting interviews and discussions with them. Deriving the methods to uplift the craft from and the inferences from the case studies & literature studies & the context study of the region. Analyzing these methods and concluding the ways to implement them which in turn can help in the sustainable development of the craft as well as the whole region.

## History of Horn & Bone craft



**Fig 1: different horn & bone products**

The practice of turning bone into a work of art dates back to the prehistoric past. Bone carving was practiced in many civilizations around the world that have seen it as an artistic medium. Artworks crafted from animal bones were typically associated with ceremony, ritual and religion in different regions. Ancient specializations in bones carving crafts are quite specific. Some believe that during the Middle Bronze Age, bone carving was one of the first traditional profession that gave rise to an independent industry - the manufacture of ornaments. This specialization can be traced in the archaeological materials of all later periods. Bronze Age had many bone and leather processing zones, which unlike ceramics, were located in the residential zones of the settlement zones, while the ceramic working units were usually located outside the territory of the village or the region. Close relationship between bone and their development was influenced by leather processing in the Late Bronze Age. In the northern Pontic region the

decline in leather processing caused a significant decrease in the variety of bone tools (Gorbov, Ushachuk, 2000: 99–100).

Bones are often carved and turned into jewelry, goblets, musical instruments, and weapons. Bone carving has been practiced by a number of world cultures, sometimes as a cheaper and more recently legal substitute for ivory carving. It was important in prehistoric art.

Horns have been used by humans for many purposes throughout history. Some bovid horns were used as musical instruments, such as the shofar. Drinking horns were popular among many different ancient cultures. They were used by Scandinavians, Greeks, Romans, Thracians, Scythians and people in Africa. Horns have been used by people for drinking for at least 2,600 years. Powder horns (originally beef horns fitted with lids and carrying straps) were used to carry gunpowder.

This craft has been widespread in India since ancient times. Tribals are usually associated with this craft. The Himalayan natives practice this craft for making ritual objects. Before the invention of plastics, bones were a common material for tools and items. Even now, the bones can be confused with their modern counterparts products. Bones can be used as a weapon in the wild. Several cultures created shovels from mammals bones. Button-like objects made of bone or other materials have been found at archaeological sites.

## **Horn & Bone craft in Sambhal**

The people of Sambhal have been practicing this craft for many generations. Earlier the industry started with the production of combs made of horns. This city is famous for its unique kind of horn and bone craft items. From bangles to photo frames to even furniture, craftsmen and sellers of this particular type of art run into the hundreds.

Sarai Tarin (the region where in Sambhal where the craft is majorly practiced) is a densely packed area with narrow streets and small houses & shops where artisans practice this craft. The main livelihood of people is through this craft and around 1 lakh people in different households of Sarai Tarin practice horn and bone craft. There are around 2000-2200 working units in the whole area.

The region of Sambhal has a considerably low literacy rate (48.28%) and high migration. The low literacy rate of the people and their dependency on the craft for their livelihood has created a threat for the employment and survival of these artisans.

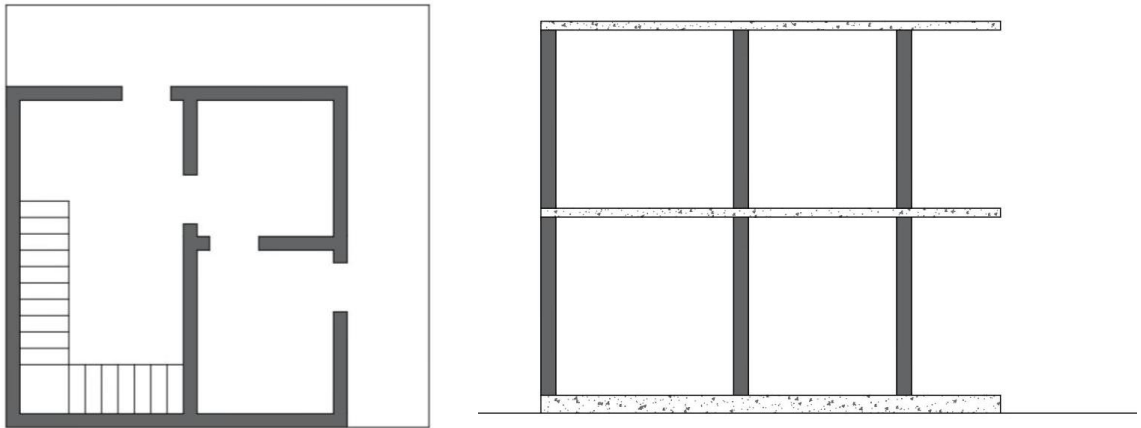


**Fig 2: craft industry working units in Sarai Tarin**

### **Working Units**

Artisans in Sarai Tarin have their workshops in their homes itself with the family members working in it. A typical house of artisan has their workshop or workspace and shops on the ground floor while the living quarters are on the upper floors. The raw material is stacked outside the house.

The common workshops are only used for packaging and storing the finished products. The artisans work in poor working conditions with people working in small and dimly lit spaces. (around 3-4 people work in a room size of about 2.5 m x 2.5 m). Artisans also have small shops on the ground floor where they display their work.



**Fig 3 : Typical Working Unit plan & section**



**Fig 4: residence/workspace of the artisans**

**Hierarchy of production/ supply chain**

Mostly artifacts and products are made on demand and the raw material is supplied according to the requirement of the order. Storage of extra raw material is avoided as horns and bones are

prone to decay due to natural processes. Most of the products are exported to other countries due to high demand there and declining market in India. The artisans are usually employed by traders on permanent basis or on the basis of contract and orders. It is very difficult for the individual artisans to sustain on their own due to declining market demand, poor or no knowledge of market and lack of planned & developed infrastructure.

### **Fig 5: supply chain**

#### **Source of raw material**

Horns & bones removed from bulls and buffaloes at the slaughter house are then purchased by different warehouses. Bones of naturally dead and unclaimed animal are also used. The raw material is also imported from other countries due to less availability in India. Bones of naturally dead animals are preferred due to high strength.

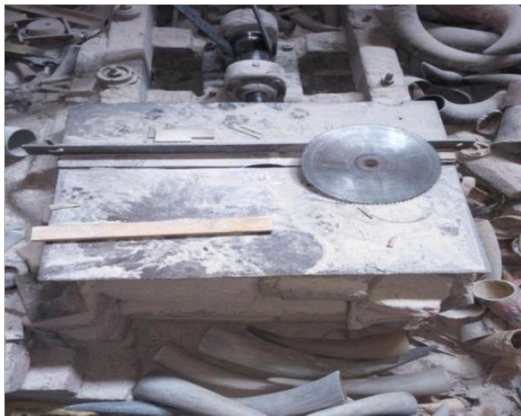
Horns and bones of buffaloes are used extensively due to its high availability and good strength.



## **Tools & equipment used**

Many types of tools are used in bone and horn craft which includes shaper, grinder, moulder etc. Various tools involved in horn & bone and carvings are as follows:

A diamond bit, a drill bit and sanding bits with sand paper are the main equipment required for bone carving, Cutter, Motor, different grades of files, buffing machines, engine etc. are also used.



## **Processes & Techniques**

Both bones and horns are different in terms of their physical as well as chemical characteristics. Therefore, technique and process of making of bones and horns objects are different but sometimes the techniques may be the similar.

Horns require more care as compared to the bones because it gets affected by temperature & moisture and develop cracks due to expansion.



It takes about 50-60 days to produce a batch of products.

### ***Process of bone carving***

Bone items are crafted in the following steps:

- When an animal dies, after some time its flesh and then its skin rots, along with its bones and skeleton collected by garbage collectors.
- The bones are first boiled with baking soda in water and then left to dry in the sun for 1-1/2 hours. This helps to remove fat and other fatty elements from the surface of the bones and to some extent also removes unpleasant odors.
- The cooked bones are cut into the required sizes. The middle part of the bone is also cut into small long strips as required.
- The bones are then scraped to make them equal in size and to make both sides parallel using a machine sandpaper.
- There are different types of sandpaper that come in many numbers and are selected accordingly scrapping the item, the more the number increases, the more finishing work is done.
- When the bones are set, they are left in a solution of hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) to produce white appearance. And the bones are kept in the sun for 15-20 days.
- The bones are then removed from the hydrogen peroxide solution to dry.
- Depending on the object, the bones are colored in different colors. Powder colors are used for coloring.
- These bones are used to make various items like boxes, tables, trays, wallets etc.
- Bones are pasted with fevicol, araldite etc and pressure is applied to the object to fix the bones firmly in place.
- The final treatment is given to the object by scrapping and subsequent polishing to give the object its final form.
- The objects are then packed and handed over to the traders to export.

### ***Process of horn carving***

Horn is a very good and versatile material for making things. Creating these horn products as an art requires a good skill and very few people can do it. It is soft enough to work easily, yet hard and tough durable enough under most circumstances. It can be heated and then flattened, cut and carved. When the horn is heated, gradually reaching a point where it becomes plastic enough to mold and shape.

1. First, the horns are selected according to the demand or the order of the object to be made.
2. Before artisans can start working with the horn, they first prepare it by removing the soft core. This can be done by a number of ways -
  - The first method is to immerse the horn in boiling water and after the outside shell softens a little, core removal is done. This method is the fastest and most sterile.
  - The second method is to dry the core in warm, even conditions for several days, allowing the core to dry and shrink before separating them. This method is not particularly clean; however, if you have the time, it is quite easy.
  - The third method is to soak the horn in water for several months. This is probably the best method for bulk preparation of large quantities of antlers and has been the method of choice used by some craftsmen throughout history. It however, it will create a lingering odor and a potentially unsanitary situation.
  - You can hollow out as much of the core as possible to facilitate the drying process by using a split piece made of wood, bamboo or something similar.
3. The membrane is cleaned as soon as possible, as it can soon start to rot and this can screw up on the horn.
4. Anything left inside the horn is scraped & scrubbed as far down as possible. Scouring washers, bottle brush, etc are used for the same. It is also possible to scrub the inside of the horn with different sized gravel.
5. The horn is most often heated for shaping with dry heat, such as baking, etc. The surface is then smoothed out using any type of support.
6. Polishing is the next step, which is done by rubbing different sizes of sandpaper. Polishing is continued until the corner became smooth and shiny.
7. These are thoroughly cleaned with water and air-dried.

### **Waste management**

The waste generated in these processes are generally the leftover pieces of horns & bones and also the powdered form of the raw material. The leftover small pieces are crushed into powder form and this crushed bones & horns can be used as manure in the agriculture industry.

There is almost zero to no waste or by products left as the crushed powdered bones and horns are supplied to the fertilizers and manure industry making it a very environmental friendly and sustainable process.

## Government schemes

The handicraft of sambhal (horn-bone) is being covered under the ODOP scheme of the government of Uttar Pradesh to promote the craft and to sustain the livelihood of the artisans and craftsmen.

### *ODOP Scheme, Govt. Of Uttar Pradesh*

Uttar Pradesh Government has launched One District One Product Scheme 2022. Subsequently, this scheme will provide job opportunities to 25 lakh unemployed candidates across the state. Under this scheme each district is assigned a product under Ek Zila – Ek Utpadan Scheme. The primary objective of this scheme is to focus on a particular product and raise its quality to compete in the international market.

The horn-bone handicraft of sambhal is covered under this scheme for the sambhal district as Sambhal offers a wide range of decorative horn-bone handicrafts that are available in different attractive looks, designs and patterns. Indeed artisans of Sambhal are known worldwide for making spell-bounded range of decorative items that are popular in not only national but also in international markets.

## DECLINE IN THE CRAFT

Major Crafts	% Units	% Artisans
All Textiles	56.70	58.42
Cane and Bamboo	12.63	12.49
Wood	6.19	5.48
Metal	3.62	3.68
Stone	0.80	0.71
Straw, grass, fibre and leaf	7.40	6.40
Leather	2.79	2.85
Glass	0.83	1.03
Clay and ceramics	5.16	5.50
Ivory, bone, horn and shells	0.61	0.60
Miscellaneous	3.27	2.84
All mediums (all major crafts)	100.00	100.00
Total	(14,55,056)	(47,61,186)
Source: NCAER, 1995-96		

In the above table it is shown that India has only a small percentage of bone and horn handicrafts which is a concerning issue. This craft has been reduced to a small part day by day

due to various threats. During this research, it was found that this industry is declining at a higher rate. Only old people participate in it, making horn combs, while the younger generation diverted to other occupations. The contribution of the craft industry in employing a large number of people cannot be neglected as it sustains the livelihood and lifestyle of craftsmen from generation to generation.

### **Issues faced by the artisans**

Sambhal handicrafts are known for unique eco-friendly nature as well as their artistic history. Instead of having potential, the industry is suffering from a sharp decline in its business. This is mainly due to the rapid change in consumer preferences and taste, insufficiency of advertising and publicity, exploitation by middlemen, unused zones and increased prices of raw materials, electricity supply and tough competition in the world market from different countries. This craft industry has come out as a decentralized industry which lacks a proper infrastructure. Lack due to low wages credit options, the uncertainty of the workload during the year and the inability to maintain a basic lifestyle, artisans hold a number of alternative occupations. Following are some other reasons for the decline of handicrafts in Sambhal :

- Declining market demand
- Artisans have poor or no knowledge of market
- Lack of planned & developed infrastructure
- Poor working conditions & workplace
- Inadequate advertising & promotion
- Decline of interest in future generations

### **Potential of the craft**

Despite the various issues faced by the craft for its existence and sustainability, there are still various potentials that it possess which in turn can help the artisans in the survival of their livelihood. These potentials of this craft can make it environmentally as well as socially sustainable.

- Uses almost all of its residue
- Waste generated is used as manure
- Gives employment to a large no. of people
- Its eco - friendly
- Its not seasonal
- Has a vast variety of products

## **INFERENCES FROM THE STUDY**

The low literacy rate of the people and their dependency on the craft for their livelihood has created a threat for the employment and survival of these artisans.

The craft industry is facing various constraints due to several problems like the low wages, lack of credit facilities, uncertainty of work load throughout the year.

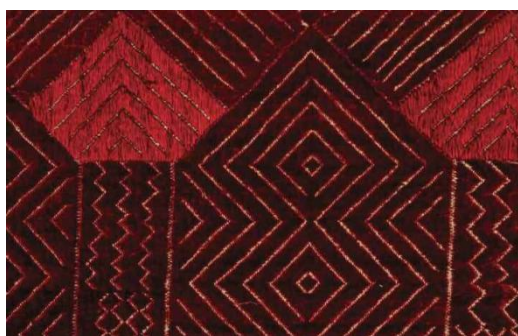
Due to these reasons artisans face the inability to sustain a basic lifestyle, as a result of which they take up a variety of alternate occupations and migrate to different places. This causes the art to decline.

## **A CASE OF SINDH (PAKISTAN)**

Sindh has a rich heritage of traditional handicraft that has evolved over the centuries.

Perhaps the most professed exposition of Sindhi culture is in the handicrafts of Hala, a town some 30 kilometres from Hyderabad. Hala's artisans are manufacturing high quality and impressively priced handicrafts.

Lacquered wood works known as Jandi, painting on wood, tiles, and pottery known as Kashi, hand woven textiles including Khadi, Susi, and Ajrak are synonymous with Sindhi culture preserved in Hala's handicraft.



### **Issues related to Sindhi craft**

Lack of patronage, impact of modern manufactures, change in tastes, paucity of raw materials, and failure to channel the traditional forms and designs into modern tastes have been the main factors contributing to the set back suffered by the traditional arts and crafts.

Nearly 65 per cent of women earned their livelihood from handicraft work. Now 90 per cent of these women are jobless. These jobless women artisans had shifted to other trades, mainly agriculture and livestock breeding. Unfortunately, during the last 15-20 years, handicrafts production has witnessed a nose-dive because of falling demand, absence of strategic planning and vision for revival of the indigenous crafts.

Some issues related to the craft practices in Sindh are as follows :

- Lack of patronage
- Impact of modern manufactures
- Change in tastes of consumer
- Paucity of raw materials
- Failure to channel the traditional forms and designs into modern tastes

### **Proposals for the upliftment of craft**

Realising these needs of the cottage industry, non-profit organization like Aik Hunar, Aik Nagar (AHAN) [One Village, One Product], should be set-up, whose primary objective should be to alleviate poverty in rural and semi-urban areas of Pakistan by supporting rural micro and small enterprises engaged in non-farm products.

A model like Art and Craft Village or Dilli Haat should be set up in Karachi, which can boost up the economy of the artisans and respectively for country.

## **A CASE OF BONE CARVING CRAFT IN LUCKNOW**

The craft of bone carving is practiced in Mailaraiganj is a small village in the Barabanki district of Lucknow. It is a small area where a number of artisans are practicing bone carving . The place is majorly dominated by the Muslim population. It houses many bone carvers who since ages have been practicing the craft.

In Barabanki, most designs are inspired by the Awadhi architecture, which comprises of jaali work and bel-Patti. Bones extracted from animals that are first beaten and then given shape.





**Fig 14 : various artifacts produced**

### **Issues related to bone craft**

Bone handicraft industry in Lucknow like any other handicraft industry faces various issues due to a number of factors. Some of the issues are listed below :

- Raw material procurement
- Coming generations are unwilling in this business
- Employment is declining
- Lack of exposure to social media
- Decentralization of the working sector

### **Suggestions to uplift the craft**

The first problem faced by them is the procurement of raw material which is bone. After the slaughterhouses were shut down the artisans have found getting the bones difficult. But this problem can be solved by adding some designs or doing innovations where they can use other materials with bones. This will even reduce the cost of the product and increase the margins.

Most of the traders sell their products through other traders which in turn increases the final cost of the product because huge commission gets involved. If they sell directly to the marketplace or shops, this may lead to cutting on cost and increase in profit margin.

The artisans should get the opportunity to put up their work in exhibitions such as Delhi Haat, Lucknow Mahotsav, etc.

Continuous workshops should be organized and craft stalls at malls can be put up.

Use of alternate materials can be done to sustain the livelihood of the artisans.

## ANALYSIS OF CASE STUDIES

	<b>Handicraft in Sindh</b>	<b>Bone craft in Lucknow</b>
<b>Location</b>	Sindh, Pakistan	Lucknow, India
<b>Type of Handicraft</b>	Lacquered wood works, painting on wood, tiles, pottery, hand woven textiles, etc.	Bone carving
<b>Issues faced by the craftsmen</b>	<ul style="list-style-type: none"> <li>• Lack of patronage</li> <li>• Impact of modern manufactures</li> <li>• Change in tastes of consumer</li> <li>• Paucity of raw materials</li> <li>• Failure to channel the traditional forms and designs into modern tastes</li> </ul>	<ul style="list-style-type: none"> <li>• Raw material procurement</li> <li>• Coming generations are unwilling in this business</li> <li>• Employment is declining</li> <li>• Lack of exposure to social media</li> <li>• Decentralization of the working sector</li> </ul>
<b>Proposals &amp; suggestions for the upliftment</b>	<ul style="list-style-type: none"> <li>• Non-profit organization should be set up whose sole purpose should be supporting rural micro and small enterprises engaged in non-farm products.</li> <li>• A model like Art and Craft Village or Dilli Haat should be set up in Karachi.</li> </ul>	<ul style="list-style-type: none"> <li>• The artisans should get a direct platform where they can display and sell their works and products.</li> <li>• The artisans should get the opportunity to put up their work in exhibitions.</li> <li>• Continuous workshops should be organized and craft stalls at malls can be put up.</li> <li>• Use of alternate materials can be done to sustain the livelihood of the artisans.</li> </ul>

## **CONCLUSIONS AND INFERENCES**

Artisans are surely a country's valuable asset. They work with devotion, and they must not be forced to walk away in search of greener pastures.

Fairs and exhibition on yearly basis are good for the encouragement but a permanent place for the crafts persons to exhibit their masterpieces should be provided to revive the handicraft culture and promote our artisans locally and internationally. The artisans should form the self help groups and other type of clusters which can further represent the community. Workshops & training centres should be set up in order to help the future generations to take forward the legacy of their heritage. Craft tourism of the place can be promoted in order to create awareness about the heritage.

## **OUTCOMES AND PROPOSALS**

The artisans of Sarai Tarin are facing the problem to sustain their craft as well as their livelihood due to certain reasons. Some of the issues faced in the sustenance of the craft and the livelihood of the artisans are as follows:

- To support the craft and enhance the livelihood of the artisans.
- To provide skill and training to the artisans.
- To make the artisans self sufficient in order to sustain their livelihood without the help of traders.
- To provide open market linkages to the artisans.

Keeping in mind the issues discussed above the following proposals can be implemented to provide a better chance for the sustainability of the horn and bone craft in Sambhal as well as the artisans and other people associated with it.

- The artisans require a better place to work as well as to promote their craft.
- Learning center and marketplace for the craft community. can be provided for the artisans to carry forward the legacy of their craft by working together in groups as well as to promote it among future generations.
- The artisans should get a a social platform which can help them in design innovation, understand the consumer's requirements and an open market linkage where they can easily sell their products.

- The procurement of the raw material as well as the religious factor also affects this craft industry, hence, the artisans can shift to other materials like wood, raisin, etc. to practice their craft of carving and making similar products.

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