



# ‘Craftology’ as an approach to the design of Terracotta horses of Panchmura, Bankura, West Bengal, in the present socio-economic context.

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## **Abstract-**

Panchmura, Bankura, is a well-known place for its strong cultural heritage and traditional terracotta practices. Making pottery is one of the age-old conventional technologies among the ethnic Kumbhakar communities in Panchmura, and they have established their rich past cultural heritage and prosperity in time. This paper aims to present the ‘craftology’ as (a scientific method) approach to increase manufacturing competitiveness and productivity of Panchmura terracotta horse. Craftology comprises the words 'craft' and 'technology.' Further, craftology was adopted by the Kumbhakar of Panchmura to enhance the new product development and the quality of the terracotta horses. Detailed research was carried out at Panchmura to understand how the Kumbhakar community unknowingly utilised craftology as an approach to develop terracotta horses, which includes raw material processing, throwing on the potter's wheel, assembling, surface design, finishing, product ergonomics, finishing and firing to a complete terracotta horse as per society's requirements.

This research study has been conducted to understand the present socio-economic and livelihood conditions of the Kumbhakar community of Panchmura. The interactive design research achieved through personal interviews with the potters, detailed observation and group discussion with the artisans helped to adopt this novel method.

**Keywords-** *Craftology, Terracotta horses, crafting process, Socio-economic*

## Introduction

In Bharat, the craft is closely associated with the tradition and culture of that region, where craft and artisans become an integral part of the society. Terracotta work is one of the oldest crafts in human civilisation. It simulates a material culture of aesthetics, creativity, and craftsmanship in its rich diversity in that region. ([www.ibef.org](http://www.ibef.org)) According to the data, handicrafts are one of the vital cottage industry sectors in West Bengal and have their own unique identity in the context of our country.

In the early 19th century, the Kumbhakar community of Panchumra started working on a wheel-based production technique called throwing. Presently, the artisans of Panchmura are continuing their ancestral traditional or ritual practices. It combines throwing and hand-building techniques, such as pinching, slab and coiling. The long-necked red horse, which is in cylindrical form, is completely hollow from the inside. It's an interesting amalgamation of form integration and form manipulation, where different types of cylindrical forms, like the neck, four legs and body parts, were prepared by throwing technique, assimilated through a building technique called pinching and finally manipulated into a form of a horse. The surface decoration process is completed with the coil technique, which is also a hand-building technique. The female family member generally carries out the motif work, which is completed by hand only. The symmetry of the overall form, the rhythmic curvilinear form of a body with different motifs, and the red horse have lent dignity and char to its form, which is incomparable. The simplicity and dynamism of form are the key elements of Panchmura terracotta horses.

The traditional clay craft in Panchumra, Bankura, has achieved national recognition over a period. The traditional form and the functional aspect of the terracotta horse have created its own identity in contemporary society. The rituals and cultural aspect of the terracotta red horse, in relation to the present form and function, have their own significance in the present socioeconomic condition of the community.

Punchmura (present Bishnupur, 22.9667°N 87.1667°E) (Bankura City Census 2011) was an ancient Mallabhum (an ancient province of Bishnupur) neighbourhood and now a village of block Taldangara (Khatra subdivision), Bishnupur, district Bankura, West Bengal, India. (INDIAN VILLAGE DIRECTORY, 2023) Ethnically, the location of Panchmura is very attractive. It is located in the Khatra subdivision and geographically between the Chota Nagpur plateau and the Gangetic delta. It is located 20 km from the ancient cultural city of Bishnupur, 10 km from the Taldangra block, and 30 km from the Bankura. The village Panchmura has a total population of 4121; the male population is 2055, and the female population is 2067. The literacy rate is 67.89%, of which 75.94% are males and 59.89% are females literate. Panchmura is surrounded by forest and agricultural land, and various trees are found in forest areas, such as Sal, Piasal, Mohua, Palas, etc. Around 86 Potters family live in Khumbhakar Para and continue their ancestral heritage of terracotta red horses. Apart from the Khumbhakar community, the people are also involved in farming or other professionals like labourers, grocers, etc. Their mother tongue is Bengali, one of the regional languages of India.

Mallabhum brought several communities to this area for self-sustainability. Thus, one of the communities, the Kumbhakars (potters), gradually settled down here and appeared with terracotta exercises under the patronage of the kings. This terracotta activity was nothing but a terracotta horse and came across some distinctiveness to colour (red). This specific outcome appeared as an erect posture, straight ears, broad chest, short legs, halter

fixed on the mouth and above all, finished artistic decorations on the neck and forehead. Even today, this Kumbhakar community is involved in this activity.



*Terracotta red horses at Panchmura, Bankura*

## Research Problem and Motivation for the Work

From the days of yore, terracotta products were made by hand. Later, the potter's wheel was developed for the artisans for the throwing process. The clay is unglazed, porous, and sintered at relatively low temperatures, and the final colour of the products is red or black (related to special treatment), and this outcome is technically called terracotta. The present paper envisages the Kumbhakar of Panchmura have used 'craftology' as a method and amalgamated throwing and hand-building techniques for crafting their terracotta horses. The methods, namely pinching work, slab work, and coil work, are nothing but the ancient processes in pottery making, continued from the Harapan civilisation till the present day. Many historians identified that the potters' wheel also started at a similar period. In Bharat, potters are available in almost every district and block level, as well as many cities, towns, and villages. They use traditional potter wheels to make terracotta objects. The potter's wheel is unique because it can create a symmetrical form, circular in nature, even with thickness and specific size limitations. However, Panchmura Kumbhakar has broken that myth and built large-size terracotta horses using a traditional potter wheel.

The hand-building technique has a speciality owing to the shape of a product. (Mondal, 2022) implies that it creates asymmetrical shapes and uneven thickness within a limited space. However, the Panchmura terracotta red horse emphasises that hand-building techniques (coil, slab, and pinching processes) and throwing combined can create such marvellous forms of the terracotta horse that are circular and asymmetrical and appropriate proportion.

Craft' is a generation-based practice or may be truly said to be a culture of made, remade, and unmade. But recently, the concept shifted towards a new dimension. Present researchers accentuate craft with technology. This means the techniques used in this practice must meet technological ideation. Hence, the term 'craftology' comes with the dual combination of words craft and technology both for modernised ideation/articulation. The term itself implies how a craft could be approached with technological and scientific thought. The present research tried to establish the term 'Craftology' as a 'Design Intervention'. This means it motivates socio-economic issues and related technical process attribution in one frame. Especially for terracotta/pottery, this term might be forestalled to design a contemporary form, maintaining the product's uniqueness.

## Craftology (Craft + Technology) in the perspective of Panchmura, Bankura

Craft research has a special value related to entrepreneurship and obviously helps in humans' day-to-day lives. (Mondal, 2022) added new innovations in craft, keeping the traditional worth is important. However, the skill of the artisans and their associated emotions are the inevitable parameters in this culture. This reflects that new understanding in the acquired experience is to be noted down. To qualify materials towards a meaningful outcome requires sensitisation. This also requires emotional perceptions. (Chattopadhyay, 1984) emphasised that crafts have been the indigenous creation of ordinary humans, from the conventional to a part of the flow of everyday life. This paper reflects that the crafts might be based on the two main crafts characteristics, aesthetics and function, which are integrated. Therefore, the word 'craftology' has a special meaning. 'Craftology' is a knowledge-based dialogue between experiential and propositional learning. The potters' empirical knowledge and embodied experiences with the pottery were articulated through practising the craft. The embodied understanding of the potters is more than merely skilled training and performance in making an object. The craftsman's body and mind play a vital role in creating and recalling a broad spectrum of expertise, including the intangible aspects. These quality traits are visible in the Kumbhakar community of Panchmura, Bankura. The Kumbhakar of Panchmura uses their ancestral heritage, where craft and technology amalgamation persisted in the conjugation of craft with technology. Therefore, the object in the sense of Craftology is to ensure consistency in quality and standardisation in size, wall thickness, and shape of the terracotta red horses.

### Socio-economic condition in the present context

The terracotta cottage industry of Bankura is one of the significant areas in the Bengal cottage industry. Bishnupur and Taldangra block is one of the dynamic sections in this region. The terracotta villages of Panchmura are very close to the historical place of Bishnupur and come under the Taldangra block. During our interview with Mr Dipankar Khumbhakar (Secretary, Mritshilpa Samabay Committee) and Mr Tapas Kumbhakar (Skilled Craftsmen), they emphasised that the Socio-economic conditions of the potters have increased as compared to earlier times, but not very significantly. Also, during in-depth interviews with the other Kumbhakars, they shared their views from various perspectives. There are a total of 76 potter families, those who are practising this heritage craft from their ancestral time. Most potters' primary job is pottery work. Most of them have agricultural land. It is a family activity and requires the complete involvement of all the members. The gender ratio is 38:35 at any given time. Many discussions have highlighted issues and challenges faced by the potters' community of Panchmura, Bankura, in the present context.

The fundamental parameters are economic growth, talent development, well-being, and living conditions. The making of a terracotta horse is a group activity. The male member of the family does the throwing in small parts. The pieces are then dried in natural sunlight and then assembled. After completing the assembly, the family's women kept it outside for sun drying. Then, they started surface design using the coil method. The application of colour used to be completed by women only. Furnace loading and unloading required women's active support during or after firing. Mr. Biltu Khubhakar, 25, a young potter who just graduated, implies that

four family members are totally devoted to terracotta work. They enjoy working together as a team. His father used to do wheelwork, and after that, his mother did the drying activity, and then he used to do the assembling and decoration; again, his mother did the colouring part, drying, etc.

Mr. Shibu Khumbhakar, 40 years old, completed his master's degree and worked as a school teacher in an adjacent village high school, but his remaining time working as a potter for the last 30 years. He emphasises that the clay work is worship for the potters. The clay work is very strenuous, requiring full physical and mental involvement from the artisans. Potter loves their clay work. It demands complete devotion and being meditative toward the material that is clay. This is their only focus throughout the day, and they do not have any other engagement, like agriculture work. Recently, the artisans got recognition from society as artists, which motivated them to continue this creative activity. Mr Shibu Khumbhakar also says that the income has increased compared to previously. But if you ask any cluster member individually, they will say no; it remains the same. Interestingly, in Potter villages, all the community members have increased their income as a family but not as individuals. As we know, the cost of everything has also gone up.

The terracotta red horse of Panchmura has a unique design feature and identity in the market. (Pinki Mandal Sahoo, 2016) established that the potters sell their products in many ways, such as participating in various fairs, direct sales from their homes, and selling via the middleman are some mediums of sales and purchase. Typically, the middleman gives the order to the artisans, and they collect it and sell it in different markets in Bharat in the name of Bankura Horse. Thus, the sellers and retailers earn more than the artisans, which is much less than their physical and financial investment. The cost of raw materials, such as clay, sand, fuel, transportation, and others, has increased drastically over the years. It is observed that, in most cases, their production cost is much higher than their labour cost and profit. (Dr. Ashimananda Gangopadhyay, 2019) implies that the terracotta craft of Panchmura, Bankura, has its own symbolic, cultural, spiritual, aesthetic, historical and heritage value, which needs to be preserved and sustained to protect the existence of the craft. The growth and development of this terracotta craft need to be retained with the increase in export and market value. Due to government intervention, the demand for the handicraft sector has increased significantly, and Bengal Craft is currently gaining wide recognition. All these activities mentioned above can improve the socio-economic status of the potters at Panchmura.

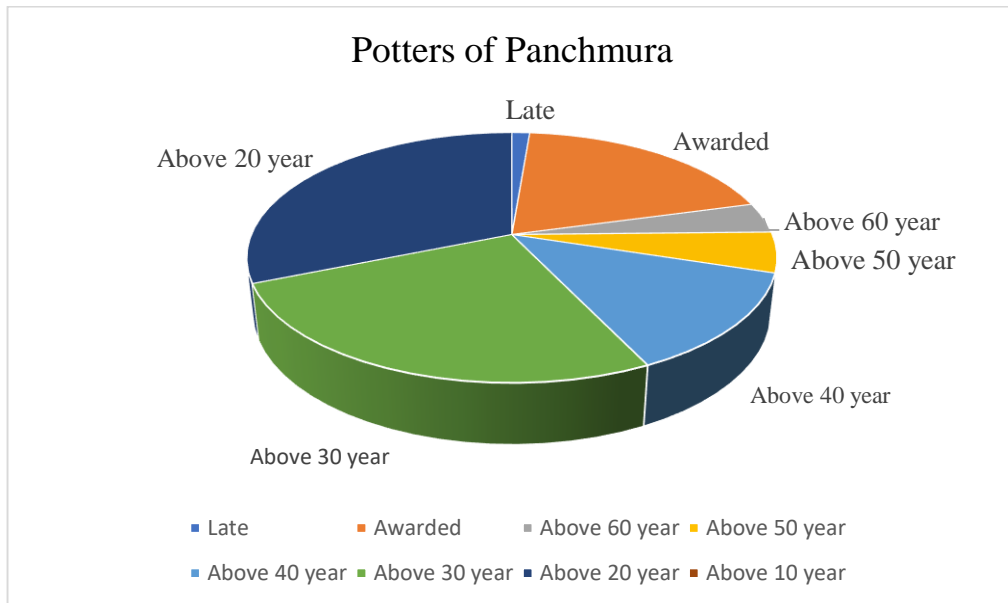
## Methodology

The research methodology adopted was a quantitative method to understand their socio-economic condition in the present scenario, where potters practise the terracotta craft at Panchmura—based on the field data, which was collected from Mritshilp Samabay Samittee, listed the 164 potters' names from the Khumbhakar community of Panchmura. The data reveals fascinating facts, which are illustrated below.

In the present context, Mr Rashbihari Khumbhakar received National Award in the year of 1969. The Khumbhakar community received several state awards - 15% of the total artisans. The significant fact is that an amalgamation of various age groups is practising this heritage craft. The data shows that 3% of potters have above 60 years of experience, 4% of potters have above 50 years of experience, 10% of potters have above 40 years of experience, 20% of potters have above 30 years of experience, 24% of potters have above 20 years of

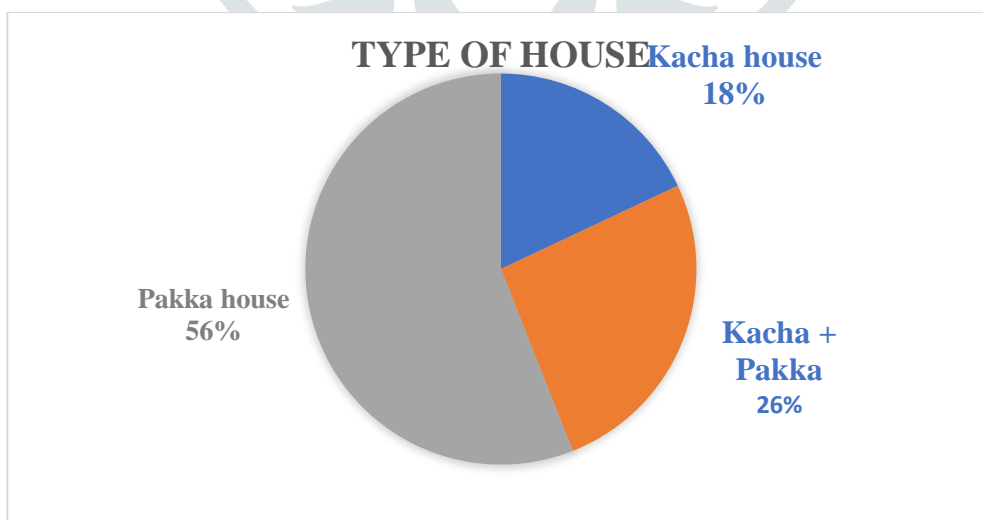
experience, and 23% of potters have above 10 years of experience. This data represents that future generations are interested in continuing their ancestral heritage. In this situation, government initiative plays a pivotal role in motivating them to continue and preserve this heritage for the benefit of society. The research data is mentioned below.

**Glimpses of generation-wise and awarded Potters of Panchmura village.**



**Types of Kumbhakar House at Panchmura**

S. N	Types of House	Percentage of respondents
1	Kacha house	18%
2	Kacha + Pakka (The base and floor are made with cement, but the roof is with a Teen sheet, asbestos, etc.)	26%
3	Pakka house	56%
	<b>Total</b>	<b>100%</b>

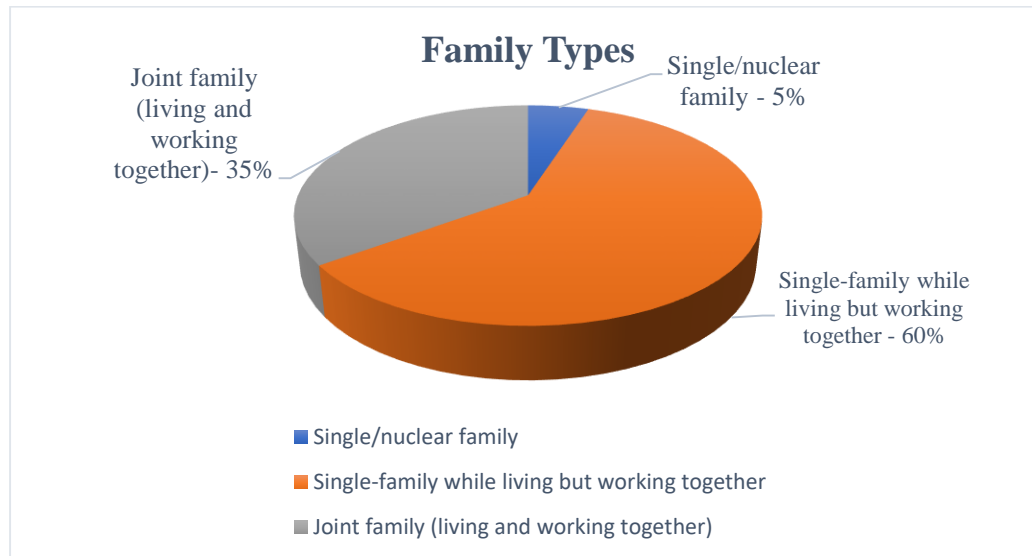


**Explanation-** The living condition of potters is a key observation point during our visit to individual potter houses. The nature of the village has changed a lot compared to earlier times. In some places, the local administration has created a concrete road; however, most of the approaching roads are kacha (Morum Road).

To understand better, we have divided it into three categories: Kacha, Kacha-Pakka and Pakka. The living condition of the potter has transformed compared to earlier times; 56% of the potters have the Pakka house, which is an important motivating factor for this craft.

### The family type of the Potter community

S. N	Family	Percentage of respondents
1	Single/nuclear family	5%
2	Single-family while living but working together	60%
3	Joint family (living and working together)	35%
	Total	100%

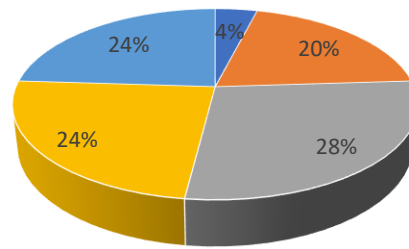


**Explanation-** The terracotta work is teamwork, amongst the family members' active involvement in various capacities. During our observation in the field, it was observed that most of the Potter family lived in the joint family structure. Sometimes due to the large family size and for the betterment of work, they have moved from one house to another, but their work remained the same, and only living space changed. As the entire community belongs to the Kumbhakar community, few artisan families lived as single families, which is significantly less (5%).

### Economic Status of the Potter

S. N	Monthly income	Percentage of respondents
1	Less than Rs 15000/- (<15000/-)	4%
2	Rs 15000/- to 20000/-	20%
3	Rs 20000/- to 25000/-	28%
4	Rs 25000/- to 30000/-	24%
5	Rs 30000/- and above (>30000)	24%
	Total	100%

## Economic Statuses of the Potter

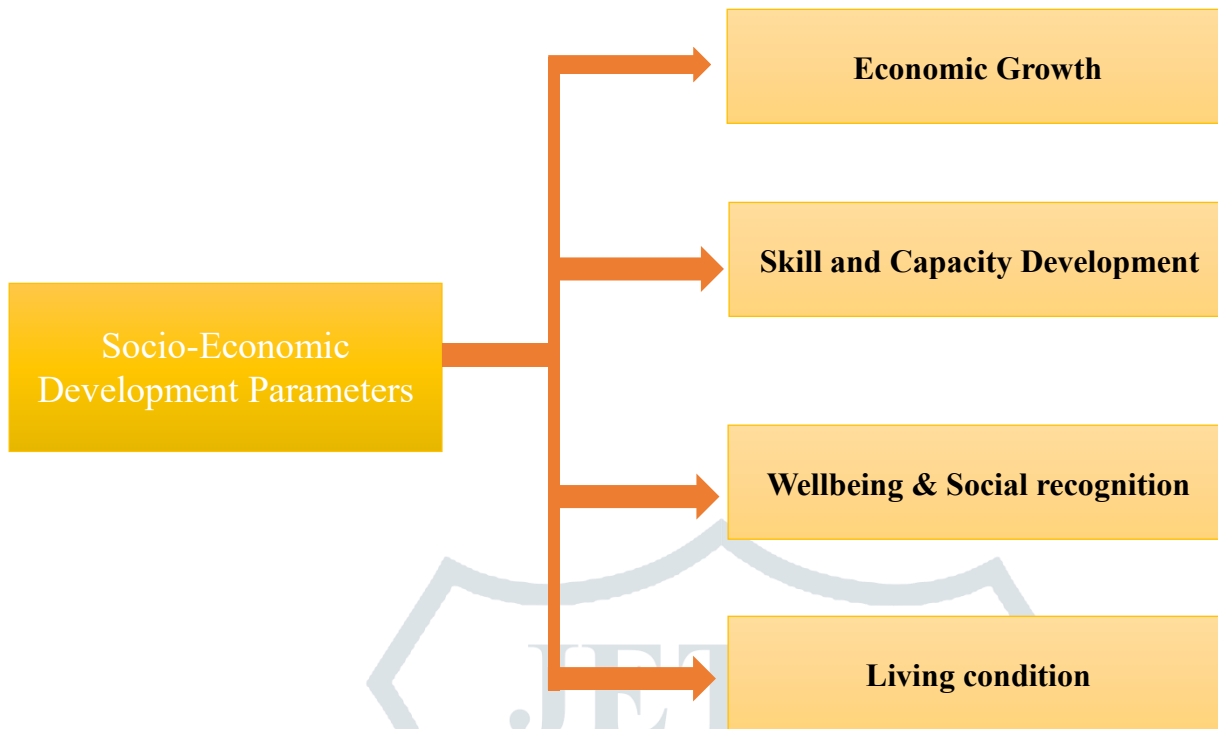


- Less than Rs 15000/- (<15000/-)
- Rs 15000/- to 20000/-
- Rs 20000/- to 25000/-
- Rs 25000/- to 30000/-
- Rs 30000/- and above (>30000)

**Explanation-**The economy is an essential deciding parameter in the socioeconomic status of the artisans. Depending on various factors, getting the appropriate information for the potter's family income is challenging. Primarily, the product sale depends on product quality, finishing, design, size and aesthetic. I have tried to develop approximate data based on individual discussions with the potter. Due to the various government agencies and NGOs' involvement in the cluster, the income level of potters has increased, which is reflected in the above-mentioned table. A pivotal portion of artisans' monthly income is 20000/- to 25000/- and another is 25000/- to 30000/- per month, which is a good income. There are 24% of artisan who does significant work has more than Rs 30000/- income, whereas 4% of artisans also have a meagre income of less than 15000/- per month.

### Community Development

Lots of discussions have been highlighted in this community development to date. The fundamental parameters are economic growth, talent development, well-being, and living conditions. If we look over the open policy, it is numerous for this community. But still, why are they so confined? By situation analysis and identifying the problems, it is found that passion for design, control resources, local administration involvement and management, and local administration's own evaluation, assessment, and accountability might be in-situ films. Therefore, probe-type goals, priorities, and strategies are required to develop a micro-business. For this, the first requirement is to develop the creative or entrepreneurial mindset of such artisans, and for this, in-situ passion toward new dimensions is required. It was found that the power of planning was really lacking along with an individual's vision or plan. Lack of know-how of the outworld, accessing markets, or surrounding ambience could be the root reasons. Therefore, talented minds are required for the holistic development of such heritage crafts.



### Conclusion

The terracotta work is very laborious work, and it demands complete involvement. The Kumbhakar community of Panchmura has continued these heritage practices for ages. Over the period, the terracotta horses have been recognised by society and reached to the global market. This study reflects that terracotta craft has made incremental changes in the socio-economic condition of the Kumbhakar lives in the present scenario. However, it needs more attention from society at large to see the significant changes in the lives of the Kumbhakar. In recent times, society has recognised them as “Shilpkar”, which motivates most of them to continue their tradition in future.

Craft is a heritage of rural industry in Bharat. Pottery is one of Bharat's traditional crafts, directly supporting livelihood and employment at the grassroots level in many regions of the country. Each time you buy any terracotta objects from a potter, it helps to survive their entire family. Our honourable Prime Minister has given us a mantra, 'Vocal for Local'. Let us all promote this concept to sustainable growth in the craft sector by using terracotta objects daily.

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