



## **PROBLEMS OF POTTERY OF CHALTABERIA, NORTH 24 PARGANAS: A CASE STUDY**

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### **ABSTRACT:**

From the Neolithic period of early human cultural period pottery is an important invention and industry that helped human to sustain them more easily and comfortably. Pottery helped human to gather their food securely, store drinkable water, and carry water from one place to another place and to boil food. For these reasons food storage capacity and capacity of procuring food had been increased in large amount. Invention of the pottery changed human culture and reached the human culture to civilized form. But during the time being the technology and types of art and craft of the pottery had been changed for combating the modern products like plastic materials, alloy products etc. The pottery technology is now being changed their products as old types of domestic products are not acceptable to the human culture. They are now producing crafts or show pieces or idols of deities. The demand of the market has changed their pottery culture to modern crafts.

**KEY WORDS:** Pottery, case study, Markets, obsolete.

### **LITERATURE REVIEW:**

To retain customers and to attract new customers the innovation should be regular phenomena (Rathi, D. 2018). Handicraft is such a product that when a buyer likes it, he is prepared to pay a price, which may be far in excess of the standard price of the product. The prime consideration is his liking of the product. (Revathy & Merlin, 2018)

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## AREA & THE PEOPLE

The area was located at the place near Duttapukur station about 10 minutes after reaching the station. The name of the area was “CHALTABERIA” of North 24 Parganas. In this village 75% of peoples are potters.

Table:-1 Forms of Family (Households)

Sl. No	Forms of Family	No. of Respondents	Percentage
1.	Nuclear Family	28	63.63
2.	Joint Family	16	36.36
	<b>Total</b>	<b>44</b>	<b>100</b>

Table-2. Monthly Income Status of the Households (Families)

Sl. No	Investment	No. of Respondents	Percentage
1.	Below Rs.5000	5	11.36
2.	Rs.5001-10000	15	34.09
3.	Rs.10001-15000	10	22.72
4.	Rs.15001-20000	9	30.45
5.	Above Rs.20000	5	11.36
	<b>Total</b>	<b>44</b>	<b>100</b>

## INTRODUCTION:

There the study has documented – their manufacturing process, problems of the industry, process of their craft making, various histories about the changing aspects of the products, challenging products that changed the industry.

**METHODOLOGY:** Extensive interviews, case studies, observations methods were done for the study.

### A. DETAILS OF PRODUCTION:-

#### **PROCURING OF RAW MATERIALS**

##### **a. NATURE AND TYPES OF RAW MATERIALS AND ASSOCIATED PRODUCTS (WITH LOCAL TERMS)**

Raw materials are essentially required for crafting of pottery products which mainly include two types of soil as cheta soil and Ganga mati, white clay, red clay (for colorings the products), and other type of fuel products are required for the potters for baking of the pottery products in the kiln. Essentially two types of soil are required for crafting a pottery product.

They bring the clay on cycle van. The transportation depends on the amount of clay which is needed to be transported to the workshop.

The main raw materials are the below:-

**i. SOIL:** - Type of soil is used for making pottery in this area mainly pasty clay /cheta soil and another one is the clay which collected from Ganges River. The pasty soil is collected from a place called canning which is located in South 24 Parganas.

**ii. RED CLAY:** -This type of clay is used for coloring the pottery product. This clay is arrived from Bihar district, especially the hill areas of Bihar. This type of clay is used for before firing coloring after firing this color will be stable.

**iii. WHITE CLAY:-** This type of clay is used for coloring the pottery product .first use of the white clay was held in china from that this clay is also known as china clay. This type of clay is comes from Rajasthan district. This type of clay is used for before firing coloring after firing this color will be stable.

**iv. ACRYLIC COLOUR:** - Unlike watercolors when acrylics dry they are permanent and you can paint over them without disturbing existing washes.

**v. WATER:** - it is very important to have water at the place of work. If water supply isn't good the workers will face many problems like the clay isn't prepare well enough at the time of manufacturing the product the potter will not be able to make any shape he wanted to have.

**vi. FUEL:** - for firing/baking the crafted pottery products they use

1. Fuel wood
2. Cow dung (ghute)
3. Paddy straws (khor)

#### **b. AVAILABILITY OF RAW MATERIALS**

According to my informant the availability of raw material is easy and good. It's all about the goodwill and understanding between the potter and the dealer of raw material. They can't suffer from the availability of the raw material. They contact with the dealer by mobile phone and after ordering the clay the delivery will happen in between 3-4 days. Generally the dealer delivers the soil from the river Ganges as well as from the agriculture land of Canning (South 24 Parganas). The soil of agriculture lands soil is collected from 2-3 ft.

#### **c. TRANSPORTATION**

From the source of raw material the soil is come in 8-10 wheelers Lorry or goods carriage. Then the soil puts on a land near the workshop of my informant. The transportation cost is included with the price of soil. This land also owned by my informants. Then from that land the soil comes to the workshop by cycle van as their need.

**d. PRICE, LABOR AND OTHER COSTS INVOLVED SOURCES**

The price of the soil is Rs.8000/ Lorry But this price will varies if the oil price increases it will increases max to max Rs.9000/Lorry. 1 Lorry contains 14 tons of soil. They used 4 Lorry soil per year. The red clay costs Rs.300/ Mon and the white clay also costs Rs.300/Mon where 1 Mon contains 40 kgs.

**NETWORKING, KNOWLEDGE, GENDER, AGE, AUTHORITY, TIME, LABOR AND OTHER FACTORS ASSOCIATED WITH THE PROCURING OF RAW MATERIALS**

**I) NETWORKING:** - Networking is very important thing in this business. They make network with the dealer or supplier of the raw material by their phone. As their goodwill they have the order in between 3-4days. Not only the dealers but also they contact with the labors by the oral contact of their charges and other essentials. So there networking is a very important thing done by everyone in this profession.

**II) KNOWLEDGE:** - in their occupation knowledge all about the pottery making technology and of market of pottery are essential.

Which soil is this? Is this soil is suitable for their work? What type of soil they need for making pottery products? How they know this soil is suitable for their work? There are too many questions arrive when we asked them about raw materials and their supply chain, the told every time one thing that it is all about experience which makes the knowledge. For that they can assure the soil and finalize the order.

**III) GENDER, AGE, AND AUTHORITY:** - they said that labors who comes and works for them are especially the males and their age will be 20-40 years. They also have female labors their work is not similar to the male ones.

**PREPARATION OF CLAY: details of the steps followed in the preparation of clay including the materials added with clay (local terms)**

Preparation of clay is a very important thing in pottery technology. If the clay doesn't make the clay perfect the product will not have the good finishing and also the product quality will be very bad or it will be damaged. The soil is carefully shifted into several layers so that the silts, minute rocks like *kakkod*, *nuri* are separated and the obtained finest layer is used for crafting of pottery products. Then, the shifted soil is mixed in certain ratio to create soil dough or *Lei* (local term).

### **PREPARATION OF CLAY STEP WISE:-**

1. Firstly fetch the soil from the near land where the soil is reserved to the workshop then In order to clean it let it dry in the sun.
2. After that they make a pile of it and mashed it.
3. Add water to make the soil soft and sticky as they needed.
4. Feet or hand pounding of the mixed soil to remove small rocks or kakkod and nouri.
5. The smoothness of the clay is varies on which product they will make. They also add quartzite and feldspar for make the product hard and more stable.
6. Many types of oxides and acids mixed with the soil to reduce the proportion of salt in the soil.
7. They kept the processed clay in an individual place covered with plastic.
8. Then they make dough which is used for crafting the pottery product.

### **INSTRUMENTS USED (LOCAL TERMS)**

1. Kodal – for cutting the soil from the preserved place.
2. Sabol - for cutting the soil from the preserved place.
3. Konchi- for shifting of the soil.
4. Hasa – for cutting the large dough into small dough or pieces.
5. Chalni – for terminating the silts and small stones like kakkod and nouri.

### **TYPES OF CLAY LEVIGATION ACCORDING TO THE TYPE OF PRODUCTS (LOCAL TERMS)**

Every products crafted by the potters have similar form/ type of levigation of soil. Only the idol making potters uses a thicker formation of clay to craft big in size products. Controlling the soil levigation requires special skill of creating a mix of specific ratios. As stated by my informant they not make any special changes of the clay due to various type of product, but they will make a small change on the softness of the clay due to change of the size of that product.

### **DEALING WITH DIFFERENT TYPES OF SOIL**

Mainly my informant uses only one type of soil so they don't have to deal with the different types of soil which is came from canning (south 24 Parganas) is smooth and sticky in nature and have elastic property which is very useful for crafting pottery products. But in the soil which is come from Ganges River has the more impurities than the soil came from canning. So, this type of soil needs more filtrations.

### **MAINTAINING CLAY CONSISTENCY:-**

The concept of maintaining the consistency comes with age of mental development and perception about the pottery products. Thus, these honing of skills start at an early age. The perception about the soil texture like thickness and smoothness develops with time and the ratio of mixing according to seasons. As my informant told that they covered the clay with a plastic for

preventing damage and have the consistency that they usually have. If the clay is too soft they take it out of place divided it up into smaller pieces flatter it out to surface to the air. If the clay is too hard or dry, they will spray water on it and make it soft enough to craft pottery products.

### **DIVISION OF LABOUR ACCORDING TO GENDER, AGE, AND SKILL:-**

Manual labor work is the foremost status quo of work basis of crafting of pottery products. Thus, daily manual labor work is done by potters for about 6-8 hours during the day. The working hour also depend on the amount of product which is needs to be crafted on the cliental request. The work also varies in the day with pounding, shifting, crafting, beating, and several amounts of manual processes.

**GENDER-** the female members of the workshop helps in pounding of the soil before processing and also design and coloring the product after firing and before firing. The male members of the workshop engage in all type of process of work in preparation of the soil and crafting the product.

**AGE-** a trainee can start at an early age or at an elder age. It depends on the work or processes one allowed to do. Power precision needs to apply on the soil dough specifically to make the dough smooth and sticky in texture so that it can be processed further to crafting stages.

**SKILL-** at first a trainee is given only to pound the dough and separate minute rocks in primary stages. An experienced person is doing the other processes include prepare the soil and crafting the product and also firing.

### **AMOUNT OF LABOR INVOLVED**

There are many labors are work at the workshop. The labors that are worked here are paid from the authority of manager of the workshop. He pays his labors Rs.8000/month. The distribution of labor with the time is Rs.267/ day and they will work near about 8 hours a day so their fees will be distributed as Rs.34/hour. This amount is excluding the food charge of them, the authority will deliver the food to them.

### **SEASONAL CHANGES IN THE WAYS OF CLAY PREPARATION:-**

During the preparation of the soil the foremost important factor is kept in mind are the seasonal changes of weather and the climatic condition. As stated by my informant in winter season the can retain maximum amount of water which is added by the potter during the stages of preparation of the clay. If the soil dough prepares cannot retain moisture in its stages cracks develop in it. As during summer season the air contains moisture and humidity in it so, they add minimum amount of water on it. Thus, seasonal changes the quality of the soil changes due to moisture. Male and female both members of the workshop can help in preparing the soil dough. So the potters have more perception regarding the matters seasonal changes.

## **OTHER FACTORS ASSOCIATED WITH CLAY PREPARATION-**

The clay prepared dough should be kept moisture so that cracks don't develop. Moisture helps the soil to retain its sticky and gooey texture which is mainly required to craft the pottery products into various shapes and sizes.

## **MANUFACTURING OF POTTERY PRODUCTS**

First of all the labors brew the soil to the work shop then make it suitable for making products with them by mashing by legs 5-7 times, then they bring average amount from which the product will made. After that they mashed the clay by their hand and make it softer as the product needs to be. After that process they have that amount which a product needs to be made by measurement of their idea which is makes by their experience. Then the processed clay is placed in the center of the potter's wheel and then the wheel will run and the potter will have the shape of the clay as he wants to be by the potter using their thumb, fingers and palm of the hands, the pressure of the palms is applied to ascertain the shape of the pottery product. It takes about 10 – 12 seconds on an average for making a vase or pot. After making the shape that he wants to have he cut the base of the product by a guitar wire and uphold the product on wooden plates. After that the products will dry in the fan air for 2-3 hours. After that it is kept on sun-drying which helps the product to retain its shape. Then it's the time for finishing the product. For finishing the product they took an amount of soil and place it in the potter's wheel, and then they cover it with a piece of cotton and make a place for placing the dry product. They called that thing AARI. After making AARI they place the dried product on that AARI and then they started the motor and given the product finishing touch by turning tools.

Then they place the finished product on the wooden plate. After that they do paint on them by placing it again on AARI with white or red clay by the brush. That is called the before firing coloring. Then they place the product on a side of the workshop. Then they make designs on the body of that product by a knife. Then it is ready to be fired. After firing the product will too much hard and stable. After firing the products are need to be painted design on their body which is done by the potter and he use acrylic color for paint the product. This color is permanent and dried faster than other colors that are the importance of that color. The potter says that they will apply the color with various types of color brushes 11, 12, 14, 16, 18 numbers as the product needed. After applying the color the product will look more attractive and good. After that they will packing the product with newspaper and stored it in wooden cartoons for deliver it to the buyers.

## **STEPWISE PROCESS OF MANUFACTURING OF POTTERY PRODUCTS-**

1. Soil dough placed on the potter's wheel.
2. The potter rotates the wheel and provides a desired shape to the soil dough.
3. Cut the product by guitar wire to uphold from the wheel and placed on a piece of wood.
4. Fan drying for 2-3 hours, then sun drying.



5. Make design and heal the cracks.
6. Before firing coloring.
7. Bring to the kiln
8. Firing
9. Removing from kiln
10. After firing coloring.
11. Packaging.

### **PROBLEMS OF THE POTTERY TECHNOLOGY AND INDUSTRY –**

The industry faced many problems during the last 35 years. The only especial machine that potters use is wheel. After keeping the clay on the wheel he/ she want to give shape to product. Before they used to use manual wheel and now they are using wheels maintained by electricity. The productions of the potters were increased due to the machine. But others aspects' of the industry were constrained for the industry. The labour costs of the industry was increased, price of the raw materials and ingredients were increased, carrying cost of the soil was increased but demand of the products of the pottery technology wre decreased as the same products were exchanged by plastic or alloy materials products. They are more sophisticated, sustainable, but sometimes those were found at low cost. The industry had to change their products. They are now producing small but sophisticated idols, showpieces, crafts etc. The next generation is not interested to the profession. They are keen to other profession. They are moving to cities for better education of their child or for other jobs. Some potters are shifted their occupation to fibre products. They are producing statues, idols etc of fibres.

### **CONCLUSION:**

Being an old age industry of the human kind the pottery technology is now at the situation of being obsolete from the modern world. If the technology cannot be changed and if the markets of the products cannot be changed, the industry may be obsolete from our world.

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