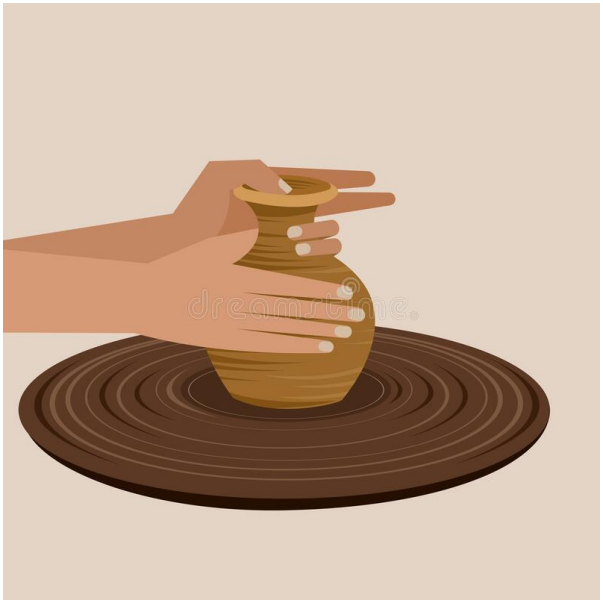

CRAFT STUDY

POTTERY

ABSTRACT

Pottery is made by forming a ceramic of a desired shape and heating them to high temperatures (600–1600 °C) in a bonfire, pit or kiln and induces reactions that lead to permanent changes including increasing the strength and rigidity of the object.

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B.Des FAD

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I. INTRODUCTION

Pottery is clay that is modelled, dried, and fired, usually with a glaze or finish, into a vessel or decorative object. Clay is a natural product dug from the earth, which has decomposed from rock within the earth's crust for millions of years. Decomposition occurs when water erodes the rock, breaks it down, and deposits them. It is important to note that a clay body is not the same thing as clay. Clay bodies are clay mixed with additives that give the clay different properties when worked and fired; thus pottery is not made from raw clay but a mixture of clay and other materials.

The potter can form his product in one of many ways. Clay may be modelled by hand or with the assistance of a potter's wheel, may be jiggered using a tool that copies the form of a master model onto a production piece, may be poured into a mould and dried, or cut or stamped into squares or slabs. The methods for forming pottery is as varied as the artisans who create them.

Pottery must be fired to a temperature high enough to mature the clay, meaning that the high temperature hardens the piece to enable it to hold water. An integral part of this firing is the addition of liquid glaze (it may be painted on or dipped in the glaze) to the surface of the unfired pot, which changes chemical composition and fuses to the surface of the fired pot. Then, the pottery is called vitreous, meaning it can hold water.

Raw Materials

Its primary mineral is kaolinite; clay may be generally described as 40% aluminium oxide, 46% silicon oxide, and 14% water. There are two types of clays, primary and secondary.

Primary clay is found in the same place as the rock from which it is derived—it has not been transported by water or glacier and thus has not mixed with other forms of sediment. Primary clay is heavy, dense, and pure.

Secondary or sedimentary clay is formed of lighter sediment that is carried farther in water and deposited. This secondary clay, a mixture of sediment, is finer and lighter than primary clay. Varying additives give the clay different characteristics. Clay comes to a production potter in one of two forms—as a powder to which water must be added, or with water already added. Large factories purchase the clays in huge quantities as dry materials, making up the clay batch as needed each day.

II. GENESIS

Pottery in the Indian subcontinent has an ancient history and is one of the most tangible and iconic elements of Indian art. Evidence of pottery has been found in the early settlements of Lahuradewa and later the Indus Valley Civilisation. Today, it is a cultural art that is still practiced extensively in Indian subcontinent. Until recent times all Indian pottery has been earthenware, including terracotta.

Early glazed ceramics were used for making beads, seals, bangles during Neolithic period but these glazes were very rarely used on pottery. Hindu traditions historically discouraged the use of pottery for eating off, while large matki jars for the storage of water or other things form the largest part of traditional Indian pottery, as well as objects such as lamps. Small simple kulhar cups, and also oil lamps, that are disposable after a single use remain common. Today, pottery thrives as an art form in India. Various platforms, including potters' markets and online pottery boutiques have contributed to this trend.

This article covers pottery vessels, mainly from the ancient Indian cultures known from archaeology. There has also been much figurative sculpture and decorative tilework in ceramics in the subcontinent, with the production of terracotta figurines being widespread in different regions and periods. In Bengal in particular, a lack of stone produced an extensive tradition of architectural sculpture for temples and mosques in terracotta and carved brick. The approximately life-size figures decorating gopurams in South India are usually painted terracotta. Traditional pottery in the subcontinent is usually made by specialized potter communities.

- Indus Valley Civilisation has an ancient tradition of pottery making. Though the origin of pottery in India can be traced back to the much earlier Mesolithic age, with coarse handmade pottery - bowls, jars, vessels - in various colours such as red, orange, brown, black and cream. During the Indus Valley Civilization, there is proof of pottery being constructed in two ways, handmade and wheel-made.

Evolution of pottery making in India

Neolithic age:

First reference of pottery in this age. It is hand-made pottery but during the later period foot-wheel is also used.

Chalcolithic age:

It is marked by the occurrence of distinct pottery cultures. Such as- Black and red-ware pottery, black-on-red ware and Ochre coloured pottery.

Harappan civilization:

Pottery traditions that existed during this time include- Polished Ware Pottery with rough surface, Burial Pottery of Harappa, Ochre coloured pottery (OCP), Black-grey burnished ware, Black-on-red ware, Grey-ware and Painted grey-ware

Vedic age:

Pottery traditions that existed during this time include- Painted Grey-ware (PGW), Northern Black Polished ware (NBPW), megalithic pottery found in Kerala.

Mauryan period:

- Use of the pottery wheel became universal.
- The pottery associated with the Mauryan period consists of many types of ware.
- But the most highly developed technique is seen in a special type of pottery known as the Northern Black Polished Ware (NBP), which was the hallmark of the preceding and early Mauryan periods.

Gupta period:

Gupta pottery remains found at Ahichchhatra, Rajgarh, Hastinapur and Bashar afford an outstanding proof of the excellence of pottery. The most distinctive class of pottery of this period is the red ware.

Kushan period:

The Kushan cultural phase in Bengal and North Indian sites brought a new horizon in ceramic craft. The characteristic pottery of this phase is marked by a unique red polished ware with stamped design along with a large number of dull or sturdy red ware.

III. TOOLS/ RAW MATERIALS

Tools and Raw Materials

Different types of tools are used to make ceramic pottery. The materials used to make these beautiful articles are:

• The main material used is clay. Two to three varieties of clay powder is mixed into one dough of clay. Type of clay used are Quarts clay, Phosphate clay, Bikaner clay and China clay.

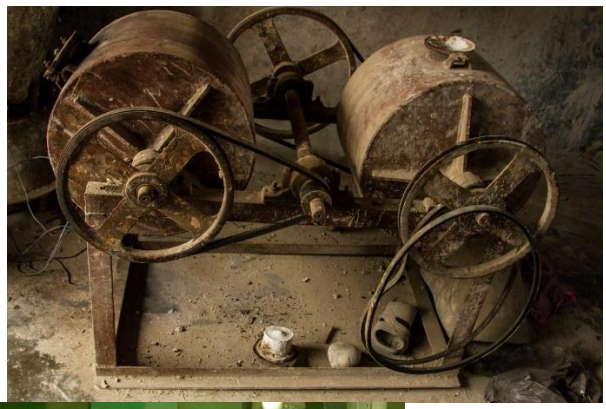
• For moulding ceramic article, moulds are prepared from POP as they absorb water and allow the article to obtain the shape.

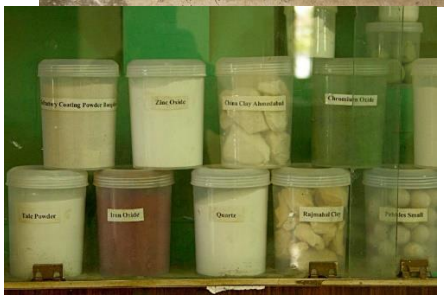
• To colour the products oxide chemical colours are used obtained from iron, Zinc, Cobalt or cobalt carbonate, chromium oxide, iron oxide, nickel oxide, etc. Chromium oxide can yield a variety of colours: red, yellow, pink, brown, and especially green. Nickel Oxide is used to produce greys and browns. The colours are mixed with glaze solution and applied on the products which shows its reaction while heating and bring out the required colour.

• Glaze solution is used to give and shine to the product. It adds a decorative dimension of colour and texture on the finished products.

• Kiln is used to bake the articles after making them.

• Jigger and Jolly machine is used to make the small articles with the help of the mould.





IV. PROCEDURE

There are a lot of steps involved in pottery making, let alone making the clay for the pot.

Steps involved in process of pottery making:

I. Preparing clay:-

For the preparation of clay, red stone sand is majorly used to provide a bright brownish red colour and a smooth texture.
The sand will be smoothened by continuously stepping on it or using a machine to make it into finer particles. Normally in villages, pottery makers usually apply pressure to the sand with their body weight since they are under privileged to afford a machine.

II. Filtering the sand:-

The clay that has been prepared will be retained in a sieve like structure to give it more fineness and smoothness. After filtering, the sand will be dampened in order to mould it into a clay. It is left for sometime for the sand to access the moisture.

III. Making process:-

Clay dough is placed at the center of the turning wheel and water is sprinkled to make the clay wet. As the wheel is turned, craftsmen starts to shape the clay. Potter's wheel is rotated manually or by electric drive. Water is added frequently to retain the moisture. The clay is shaped into desired form.

A smooth surfaced stone is used to slide along the shaped article to smoothen and level the article's surface while turning and finished piece is cut and separated from the wheel with the help of a thread. The shaped articles are dried in direct sunlight. Cooking pots, water storing pots are the basic products made from clay.

A pot holder is fixed on the turning wheel and the partially dried clay pot is placed upside down on the holder. With the help of a round metal tool excess clay is scraped out and the pot is given a proper shape. The edges and surface of the article is shaped with the smooth stone.

IV. Bisque Firing:-

When the work is completely dry it can go into the bisque kiln. The bisque kiln is fired to 1000°C. This process burns off the water in the clay as well as some of the chemically bound water. The structure of the clay is not altered that much at this temperature.

Inside the bisque kiln, the work is stacked a little, small bowl inside a larger bowl and onto a heavy plate. Smaller items like decorations or drink coasters might get stacked several high. Consideration is paid to the weight of the stack and shape of the work. A bisque kiln can fire about one and a half times the amount of work that the glaze kiln can fire.
The firing takes about 10 hours to complete the cycle and about two days to cool down.

V. Storage:-

After firing in the kiln, the works are stored under a tarp together will other pottery work too. After the pieces have been dried, they are ready for glazing. The pieces may be entirely covered in one colour of glaze by being run under a waterfall of glaze that completely coats each piece, or the pieces may be sprayed with glaze.
Deep hollowware such as vases have to be flushed with glaze by hand to ensure that they are completely coated on the inside.
Either the works will be glazed or turned into a matt finish by rubbing it with sand paper.

V. SURVEY

Q. What is the clay used to make pottery?

A. Earthenware are usually used to make small utensils like cups and small mugs. Red stone sand is the most popular sand used to make clay.

Q. What is the cost of procuring clay?

A. It takes around 200rs. For 500 gm of clay if it is bought in the market.

Q. How to determine the quality of the clay?

A. If the soil falls apart when you open your hand, then you have sandy soil and clay is not the issue. If the soil stays clumped together and then falls apart when you prod it, then your soil is in good condition. If the soil stays clumped and doesn't fall apart when prodded, then you have clay soil.

Q. What is the procedure to create the clay?

A. For the preparation of clay, red stone sand is used to provide a bright red colour. The sand will be smoothened by continuously stepping on it or using a machine to make it into finer particles.
The clay that has been prepared will be retained in a sieve like structure to give it more fineness and smoothness. After filtering, the sand will be dampened in order to mould it into a clay. It is left for sometime for the sand to access the moisture.

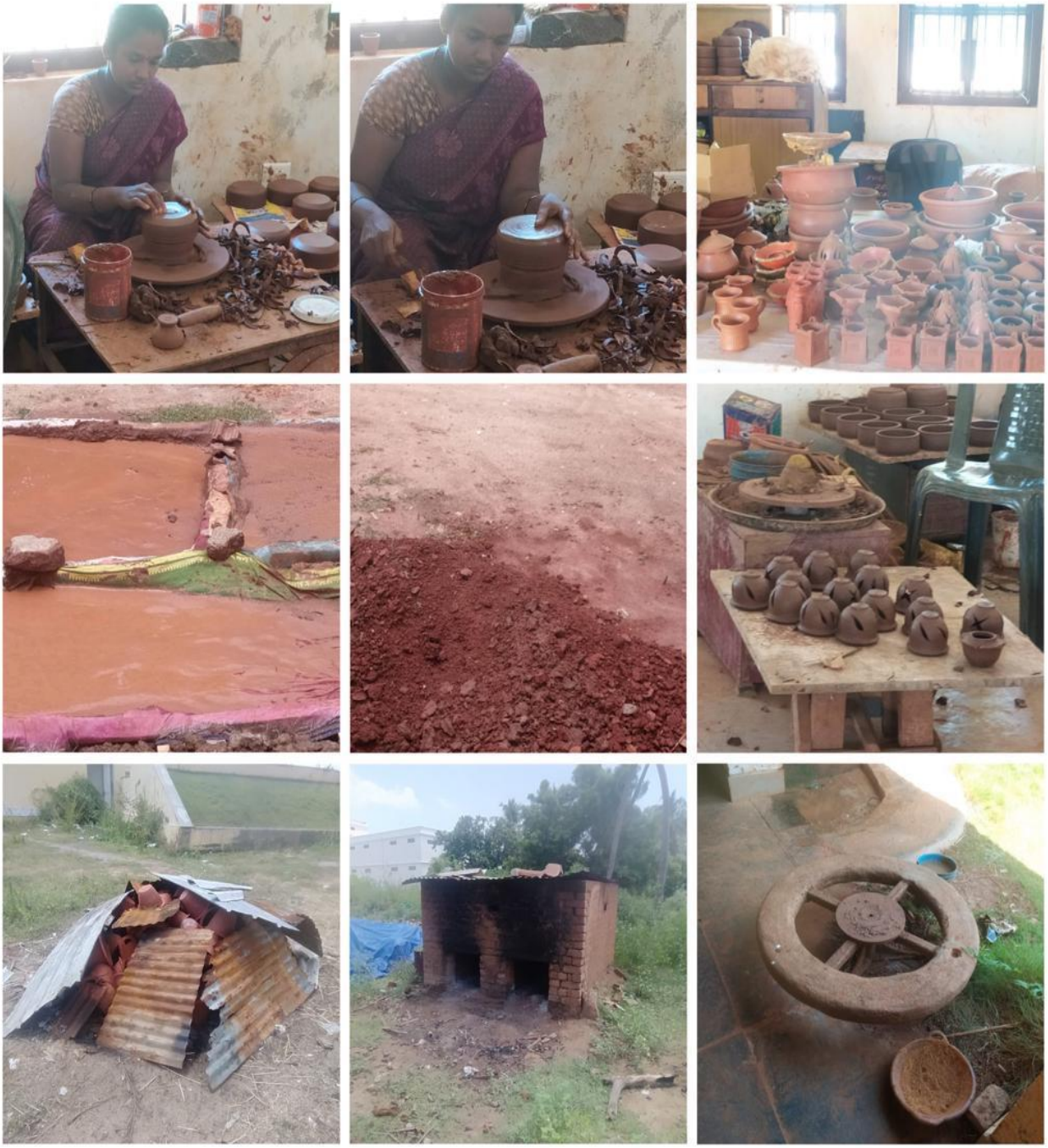
Q. Is there any spiritual meaning behind the use of clay?

A. The symbolism of clay can also portray ideas of renewal and reincarnation as clay can be infinitely recycled in its raw state by managing its moisture levels. This alludes to the infinite possibilities of clay and the capacity to start all over again, to be reborn.

Q. How much do you earn monthly after selling pots?

A. Salary range for the majority of workers in Potters and related workers - from ₹8,439 to ₹37,705 per month.

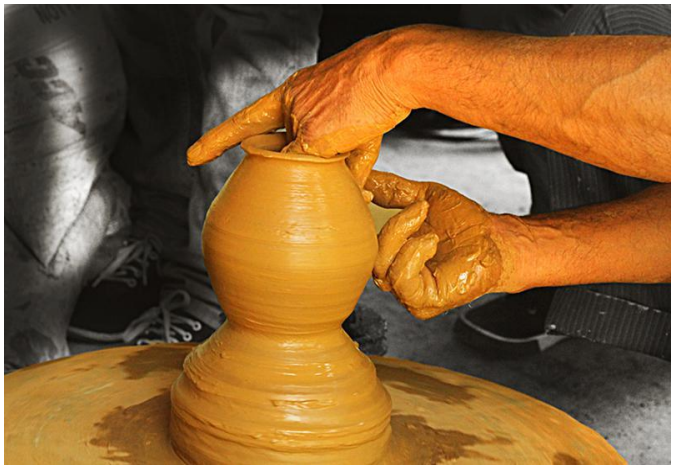
VI. PICTURES TAKEN IN THE FIELD



VII. DATA ANALYSIS

It has been observed that in this field it is mostly men who are potters and not women. Asking upon the question of how the participation of women in this field are, some workers replied it is very low, and its usually men who are seen as potters.

According to the workers, the income they receive is not enough for their daily survival and mostly goes in the procurement of soil for the clay. We must help them by introducing handmade pots and vessels into urban life and teach the importance of supporting local handicrafts.



VIII. CONCLUSION

Indian handicrafts must be brought into the urban lives as it is in our hands to develop Indian goods for the betterment of our country.

There is a spiritual meaning connected behind pottery. The process of making ceramics demands the use of all four elements – earth, air, fire and water. Of course, the clay itself represents the element of earth, which is available in abundance all around the world.

Wheel throwers in particular are very familiar with the use of water to create flexible and malleable clay, and very often the presence of water can prevent disasters in wheel throwing, creating an easier transition from one shape to the next. When we finish our pieces, we rely upon natural air to dry out the clay which is essential before placing into the kiln. Finally, the need to 'fire' at very high temperatures in a kiln is what completes the ceramic process.

The Handicrafts Sector plays a significant & important role in the country;s economy. It provides employment to a vast segment of craft persons in rural & semi urban areas and generates substantial foreign exchange for the country, while preserving its cultural heritage.

Handicrafts have great potential, as they hold the key for sustaining not only the existing set of millions of artisans spread over length and breadth of the country, but also for the increasingly large number of new entrants in the crafts activity. Presently, handicrafts contribute substantially to employment generation and exports. The Handicraft sector has, however, suffered due to its being unorganized, with the additional constraints of lack of education, low capital, and poor exposure to new technologies, absence of market intelligence, and a poor institutional framework.