

1. Explain in detail the technology of weaving and pottery during the Sangam Period.

(7 Marks)

The Sangam Period witnessed remarkable technological growth in both weaving and pottery. These industries were the backbone of the ancient Tamil economy and played an important role in domestic use, trade, and cultural life.

Weaving Technology

Weaving was one of the most advanced crafts of the Sangam people. Cotton, silk, wool and plant fibres were used for weaving. Cotton was the main raw material and was grown extensively in the regions of Madurai, Korkai and Pudukkottai. Weavers used the horizontal pit loom, vertical loom, and back-strap loom depending on the type of cloth produced. The techniques included spinning using the takli spindle, dyeing with natural plant dyes such as indigo, turmeric, manjistha, and weaving with fine yarn.

Sangam literature like Pattinappaalai and Madurai Kanchi praises the fine muslin cloths, thin as the "windswept mist," produced by Tamil weavers. Women known as Paruththi Bendir (cotton women) helped with ginning, cleaning and spinning cotton. The final products included Pavutkal (muslin), Aranai (silk-cotton mix), Kalingam, and colourful border cloths. These were exported to Rome, Burma, and Southeast Asia.

Pottery Technology

Pottery was another highly developed craft of the period. Various types of clay such as alluvial clay and sandy clay were used. After cleaning and kneading the clay, potters shaped vessels using the fast wheel (chakram). Firing was done in open kilns as well as in closed kilns to give strength and finishing. Chemical components like silica, magnesium, iron oxide, alumina and lime were naturally present in the clay and improved durability.

The Sangam potters produced many varieties such as Black and Red Ware, Rouletted ware, earthenware, large storage jars (Thazhis), and graffiti-marked pots. These pots were used for cooking, storage, burial, and trade. Archaeological sites like Arikamedu, Uraiyur, Keezhadi and Kodumanal give evidence of advanced pottery technology.

Thus, both weaving and pottery show the high scientific understanding, artistic skill and vibrant economic activity of the ancient Tamils during the Sangam Age.

5. Explain in detail the pottery (pot making) technique of the ancient Tamils (Pazhan Tamilar).

(7 Marks)

The ancient Tamils were highly skilled pot makers, and pottery was an essential craft in everyday life. The technique of pot making involved several systematic steps.

1. Selection and Preparation of Clay

Potters collected clay from riverbanks, ponds and tanks. The clay contained natural elements like silica, iron oxide, alumina, magnesia and lime. After removing stones and impurities, it was soaked, filtered, kneaded and made smooth.

2. Shaping the Pot

Potters used the wheel (chakram), either manually operated or foot-operated. The clay lump was placed at the center of the wheel and shaped into vessels using both hands. Some large storage jars (Thazhis) were shaped by hand without a wheel.

3. Drying

Shaped pots were kept under shade first and then exposed to sunlight to avoid cracks. This drying stage was very important.

4. Decoration and Finishing

Ancient pots often had graffiti markings, geometric lines, animal figures, symbols and designs made before or after drying. Slip coating and burnishing were used to give shine.

5. Firing Process

Pots were fired in open or closed kilns. High temperature (600°–900°C) strengthened the pot. The firing atmosphere (oxidizing or reducing) determined the colour.

Reducing atmosphere → Black colour

Oxidizing atmosphere → Red colour

Thus the famous Black and Red Ware was produced through careful control of heat and oxygen.

6. Types of Pots Produced

Cooking pots, water jars, storage thazhis, lamps, bowls, burial urns, and transport containers were common. Large urns were used for Mudhumakkal Thazhigal (burial jars).

Pottery was not only a utility craft but also an art with symbolic designs. These techniques reflect the scientific knowledge, artistic ability and cultural life of the ancient Tamils.

8. Explain with proof about Black and Red Wares.

Black and Red Ware (BRW) is one of the most significant types of pottery of the Sangam Age. Archaeological discoveries from Tamil Nadu clearly prove its widespread use.

Definition and Appearance

Black and Red Ware is identified by its black interior and rim with a red exterior body. This dual colour is achieved by firing the pot in a kiln with variable oxygen supply—oxidizing for red and reducing for black.

Technique

BRW pots were made of well-levigated fine clay. The pot was first shaped on a fast wheel. During firing, the pot was inverted, and the upper part was exposed to less oxygen, turning it black, while the lower part remained red due to oxidation.

Archaeological Proof

BRW has been unearthed at several Tamil archaeological sites:

Arikamedu – Roman trade centre with BRW and rouletted ware

Uraiyur – Capital of Cholas with abundant BRW

Korkai – Pandya port famous for BRW

Adichanallur – Burial urns with BRW

Keezhadi, Kodumanal, Alagankulam, Porunthal

These findings prove the widespread use of BRW from 300 BCE onwards.

Uses of BRW

Used for cooking, storing grains, water, daily household activities, and burial rituals. Some BRW pots contain graffiti symbols, indicating a system of communication or identity.

Cultural Significance

BRW is an important marker of the early historic Tamil culture. It shows the technological expertise of ancient potters and helps archaeologists trace trade networks, lifestyle and burial customs of the period.

Thus, Black and Red Ware pottery stands as one of the strongest archaeological proofs of Sangam-era craftsmanship.

9. Write in detail about the graffiti marks (scratch symbols) in the pots/potteries.

Answer:

Graffiti marks are scratch symbols found on pottery surfaces before or after firing. They are an important part of Tamil archaeological evidence and provide insight into the communication practices of ancient people.

Nature of Graffiti Marks

Graffiti consists of simple lines, geometric figures, human and animal forms, weapons, fish, sun symbols, wheels and clan marks. These signs were incised using sharp tools.

Purpose of the Symbols

Scholars suggest several functions:

1. Owner's mark or identity symbol
2. Potter's signature
3. Trade or counting marks
4. Ritual or religious symbols
5. Clan or community symbols
6. Early form of writing related to Tamil-Brahmi

Archaeological Evidence, Graffiti has been found in many Tamil sites:

Keezhadi – Plenty of symbols resembling early writing

Adichanallur – Burial urns with animal symbols

Kodumanal – Trade symbols

Arikamedu, Uraiur, Porunthal, Korkai

These discoveries indicate that the ancient Tamils possessed a symbolic communication system long before the development of complete scripts.

Types of Graffiti Symbols:

Geometric – circles, squares, triangles, fish-hook shapes

Figurative – human figures, animals like bull, fish, peacock

Objects – weapons, arrows, wheels

Abstract symbols – cross marks, lines, loops

Cultural Significance

Graffiti helps understand:

Social organization

Trade activities

Burial customs

Symbolic thinking of early Tamils

Thus graffiti marks form an important bridge between prehistoric art and historic writing systems of Tamil Nadu.