

Archaeology's Role in Preserving the Culture and Heritage of a Society

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Abstract

Archaeology is the study of human activity through the recovery and analysis of material culture. The archaeological record consists of artifacts, architecture, and cultural landscapes. Today, our culture seems to document everything through books, newspapers, television, and the Internet. Although the written record may be greatly useful, it is biased by the beliefs and mistakes of those who have produced them. Archaeology provides a more objective account of our past than the historic record alone. Archaeology offers a unique perspective on human history and culture; these can range from small artifacts, such as arrowheads, to large buildings, such as pyramids. Anything that people created or modified is part of the archaeological record. Archaeology helps us to appreciate and preserve our shared human heritage. It informs us about the past, helps us understand where we came from, and shows us how people lived, overcame challenges, and developed the societies we have today. The focus of archaeology has changed over the years. And Archaeologists today, study everything from ancient pots to DNA to theories of cognitive processes. This paper mainly focuses on the theories, methods and practices employed by archaeologists in knowing about the history and the heritage of a particular society, namely the Harappan culture and the Mesopotamian civilization.

Keywords: Archaeology, Heritage, Culture, Human history

In this generation, there is a stigma that history and its co-disciplinary subjects are not useful in what we call the techno-savvy world that we live in. But to gain knowledge about the cultural, traditional, political, and social status of the past reigns is very important and interesting too. History doesn't form on its own. History is the recorded assumptions of archaeologists about the past.

Today archaeology is a precise science. Archaeology had its start in the European study of history. Even back in what one would think was ancient times itself there was the start of the systematic investigation into the past by Herodotus. He was the first western scholar to systematically collect artifacts and test their accuracy.

Archaeology later concerned itself with the antiquarianism movement. Antiquarians studied history with particular attention to ancient artifacts and manuscripts, as well as historical

sites. Their focus was to collect artifacts and display them in cabinets to provide information about their findings to the general public.

Among the first sites to undergo archaeological excavation were Stonehenge and other megalithic monuments in England. In India, The spectacular discovery of Harappa and Mohenjodaro during the early twenties of this century brought about a great deal of interest in Indian archaeology among the scholars. One can see that the rise and development of interest in Indian archaeology follows almost parallel with the same in Europe. In 1861 the Archaeological Survey of India was established and this was the same period when in Denmark the Prehistoric Museum was established. Researches in Archaeology of India for the period between 1861 to 1944 began with stamp collection and did not have any theoretical pattern.

It was only in 1944 that Sir Mortimer Wheeler started a series called the 'time- space' perspective where the archaeologists in India can collect their 'stamps' without damaging the corners and also learn the method of arranging them within a given 'album'. Normally, after archaeologists find a site they want to examine, and they do a survey. First, they walk as a group across the site in a line, looking for artifacts on the ground. They flag any objects they find and take their exact location using a transit or a total station.

These measurements help archaeologists to make maps of the site and the places where artifacts are found on the ground. Secondly they begin excavating it, they lay down string across the ground in a grid, the grid helps archaeologists measure where they are excavating and where they will find artifacts. They begin to dig carefully and slowly, using small tools like trowels, brushes, and picks. Care is taken so no found materials are broken or mistakenly discarded.

It is also to be noted that each level of the site must be fully excavated and kept flat before digging further. Information must be recorded before an artifact and its surroundings are disturbed. Everything about an artifact is a clue to the culture that produced it. So, when an artifact is found at the site, where it was found in relation to other objects, and how deeply it was found in the ground, reveal how the people once there lived, worked, and interacted. After all the information is recorded about the exact spot where an artifact was found, the object can be removed from the ground and labeled.

Archaeologists spend much of their time in laboratories. Preserving excavated materials is essential to making them useful to researchers in the future. Different types of materials require different methods of preservation and repair. Once artifacts have undergone the preservation process, each is given a distinct number that is applied to the object itself, and placed on all documentation related to the object.

The purpose of cataloguing is to give each item a unique identifying number which refers to a card or sheet that includes all the information about the artifact and its relation to understanding the culture and heritage of its society in particular. Dating method helps a lot in knowing about the heritage of ancient society by the reconstruction of history from remains of ancient cultures.

Dating is process of estimating the age of ancient material, remains and determining a chronology of events in the history of Earth. Archaeological Excavations can be classified as: planned, rescue, or accidental. Quarrying, road-widening and construction of houses, factories, and public buildings frequently warn the destruction of sites which might contain archaeological remains, Mainly at places in the northwestern regions of South Asia, extending from what today is northeast Afghanistan to Pakistan and northwest India where the Harappan civilization once existed.

The Indus valley civilization also called the Harappan culture is one of the most remarkable and a unique culture discovered till date. The Harappan seal is the most important artifact of the Harappan civilization. Made of a stone called steatite, this seal contains certain animal motifs and signs from a script. Archaeologists with their strong and sound methods of excavation have found out that the seal contained a bull motif and its representation indicates that oxen were used for ploughing. Apart from this Archaeologists have also found the models of terracotta ploughs near Cholistan and Haryana (Banawali), and the evidence of a ploughed field at Kalibangan (Rajasthan) associated with Early Harappan culture. Archaeologists have reconstructed the dietary practices of Harappans from the finds of charred grains and seeds found at the excavation sites.

One of the most distinctive features of the Harappan culture was the carefully planned drainage system. As reported by the archaeologists a place called Lower town at Harappa had its roads and streets laid out in a grid pattern intersecting at right angles. It seems that streets with drains were laid out first and later houses were built among them. Every house had its own bathroom constructed with bricks and had drains connected to the street drains.

Archaeologists use certain strategies to find out whether there were social or economical differences amongst people living within a particular culture, these include the studying of the burials. At burial sites in Harappa there were differences in the way the dead were buried and it is also stated by the archaeologists that, some graves contain pottery, ornaments and jewellery indicating a belief that that these could be used in the afterlife. In some cases the dead were buried with copper mirrors too.

Archaeologists also study the artifacts by describing them as utilitarian and luxuries respectively. Utilitarian includes objects of daily use made with stone or clay and these included pottery and needles. Archaeologists also assume that objects were luxuries if they were made from costly materials and complicated technologies. For example little pots of faience (made of ground sand or silica) are considered a luxury artifact.

Archaeologists have found out that the Harappans procured materials for craft production by establishing settlements in places such as Nageshwar and Balakot where the shell was available. And they sent expeditions to areas such as Khetri regions of Rajasthan for copper and south India for gold. Recent archaeological finds also suggest that copper was brought from Oman too. It is

also found that communication with Oman was by sea, besides archaeologists have found the depiction of ships and boats on the seals of the Harappan civilization.

The majority of research on an archaeological project actually takes place after the excavation. When the data is recovered from the field, it is taken to the lab to be cleaned, identified and then analyzed accordingly. Once analyzed, the archaeological evidence is always reported in a technical report. Occasionally, reporting of archaeological research is also made to the public.

Archaeological documentation is very important as it records what happens to the evidence when it is in the lab, as well as the Archaeologist's final conclusions about what that evidence means for understanding the past. Sediment removed from the excavation areas are placed in bags and labeled stating, where and how deeply they were found. The bags are emptied on mesh screens and are sprayed with water. Bone material is usually cleaned with acetone and coated with a solution of PVA (polyvinyl acetate) to protect both the surface and the inner structure of the bone. Broken bones are glued together with a stronger PVA solution. Shells are cleaned with a dry brush. Once artifacts have undergone the preservation process, each is given a number that is applied to the object itself and placed on all documentation related to the object.

This information includes the catalogue Number, identification of the item, its provenience (county, site number, coordinates, elevation) the date of collection. Newly found artifacts are compared to other ones that archaeologists already know about, Comparisons help them understand if people at different sites interacted or were in the same group. Archaeologists have found out that the Harappan weights and exchanges were made of a stone called chert which was cubical in shape, the lower denominations were binary (1, 2, 4, 8) and higher denominations followed the decimal system and the smaller weights were used for weighting jewellery and beads. There is evidence that by c.1800 BCE most of the mature Harappan sites had been destroyed altogether.

When Harappan cities fell into ruin, people forgot all about them. When they began living in the area they did not know about the artifacts which at times showed up above the soil or exposed by soil erosion. The problems of archaeological interpretation relating to the religious practices of that period proved to be very difficult. Archaeologists have an opinion that the terracotta figures of women, heavily jeweled with grand head-dresses would have been mother goddesses. Rare stone statue of men seated with one hand on the knee is compared to that of the Mesopotamian priest king.

Attempts had also been made to reconstruct the religious practices with the help of seals which portrays ritual scenes and worship. Some animals on the seal namely the unicorn seem to be mythical. In some seals, a figure is seen seated cross-legged in a yogic posture surrounded by animals which has been regarded as lord Shiva's image by certain archaeologists. Certain places like the great bath and the fire altars at Kalibangan and lothal are believed to have some sort of ritual importance and power.

In the case of Mesopotamia, Archaeology began in the 1840's in two sites including Uruk and Mari. Mesopotamia was important to Europeans because of references to it in the Old Testament. Archaeologists have also found out that the canals and the natural channels of ancient Mesopotamia served as good routes of transport between large and small settlements. It is also stated that the Mesopotamians wrote on clay tablets which contained signs and numbers. Writing began around 3200 BCE when society needed to keep records of transactions. The system of writing in Mesopotamia was very complex. The writer is believed to have written the letters in the cuneiform script on the wet clay tablet before it dries up. Very few Mesopotamians could read and write.

From 5000 BCE, settlements had begun to develop in southern Mesopotamia. Early settlers began to build and rebuild temples at selected spots in their villages. They built small shrines made of unbaked bricks. The chief deities were the god of moon Ur, and the goddess of love and war. In spite of the natural fertility, archeological records show that villages were relocated in Mesopotamia and there were man-made problems when people who lived on the upstream stretches of channel diverted so much of water into their fields that villages in the downstream were left without water.

The early Mesopotamian countryside had conflicts over land and water. From the legal texts it is known that in Mesopotamian society the nuclear family was the norm, although a married son and his family often resided with his parents. At Ur, one of the earliest cities of Mesopotamia had narrow winding streets which indicate that wheeled carts could have not reached many of the houses and sacks of grain and firewood would have arrived on donkey-back. Archaeological evidence states the lack of town planning in this area and there were no street drains. There is also evidence stating that there was a town cemetery at Ur in which graves of royal people and the commoners have been found. But a few individuals were found buried under the floors of ordinary houses too. Archaeologists have also found out that the teeth of very young pigs were excavated at the sites and in fact, one house burial contained some pig bones, and it is believed that the dead person must have been given some pork for his or her nourishment in the afterlife.

Archaeologists use topographic maps to study terrain, water resources, and ground conditions in the area where they are looking for archaeological sites. Ground penetrating radar is an exciting tool that allows archaeologists to look for things below the ground without digging. Archaeologists rely on a wide variety of aerial survey methods, referred to as remote sensing. Remote sensing involves using photography, radar, and other imaging technologies to detect sites for excavation. Aerial photography is especially useful for detecting archaeological sites that are difficult to see from the ground. Using infrared photography, archaeologists identify soils that have been disturbed or manipulated in the past, as well as other ground features that are invisible. Archaeologists use mesh screens to search for items such as cereal grains and other plant remains, the bones of rodents and other small animals, and tiny artifacts such as beads. To recover these materials, archaeologists use a technique called flotation, in which sediments are mixed with water and the organic matter floats to the surface.

The greatest legacy of Mesopotamia is the tradition of time and mathematics. Around 1800 BCE, tablets with multiplication and division, square and square-roots and tables of compound interest had been found. The divisions of a year into 12 months according to the revolution of the moon around the earth the division of a month into four weeks, and the day into 24 hours and the hour into 60 minutes has come to us from the Mesopotamians. All the solar and the lunar eclipses were noted accordingly, and there were also recorded positions of stars and constellations in the night sky. All this information were noted and documented by people on the clay tablets who were trained to become not only record keepers, but also as people who could build on the work of their ancestors.

The Mesopotamians' pride and valor were described in poetry after the cities were destroyed in war. The Gilgamesh epic written on twelve tablets tells about the grandeur of the Mesopotamian civilization. Thus, archaeology helps us a lot to know about different cultures and their heritage respectively. With the help of the archeological evidence we can understand the social differences and can have an idea about how the civilizations functioned. An understanding of certain elements of past by the archaeologists is shaped by the ancient artifact's resemblance to the present day things. They also try to identify the function of the artifact by investigating the context in terms of where it was found and how it was found.

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