Indira Gandhi
National Open University
School of Social Sciences

# MAN-002
# Archaeological Anthropology

Block

# 8

## INTERPRETATION AND EXPLANATION OF ARCHAEOLOGICAL RECORD

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# BLOCK 8 INTERPRETATION AND EXPLANATION OF ARCHAEOLOGICAL RECORD

**Introduction**

The purpose of this block is to introduce the students to early urbanization in the Indian subcontinent, the cultural resources and its management. It is divided into three units, which deal with early urbanization, applied aspects and cultural resources. The first urbanization of the subcontinent was brought to light through the accidental discovery of the sites of Harappa and Mohenjodaro. Subsequent archaeological excavations at these places followed by explorations and excavations within its neighbouring and distant regions made us understand the intricacies of the Indus Valley Civilizations, its rise, internal developments and fall. These works have resulted in situating Indus Valley Civilization in the global context and brought India within the global map of Ancient World Civilizations. Although termed commonly as Indus valley Civilization, it is also known through the names Harappan Culture/ Harappan Civilization or Indus – Saraswati Civilization. The sites datable to the Harappan civilization exhibit an enormous degree of uniformity and at the same time diversity with regards to its features and other characteristics depending on the region it is found. It may be noted that the sites of this Civilization are spread out in the northwestern frontiers of modern India, whole of Pakistan and parts of Afghanistan. More than ninety years of research on the Harappan civilization are focused on their town planning, crafts, trade, script, economy, agriculture, society, water management systems and religion. Some of its details are highlighted in this unit. The full picture of this civilization however remains unknown and the arena of Harappan remains are open for further research and discussion. The second unit dealing with applied aspects speaks on the importance of cultural heritage and the need to conserve them. It throws light on the various excavated sites important for the antiquity of Indian Civilization and the need to preserve and conserve the ever diminishing heritage, monuments and cultural assemblages. The third unit on cultural resources and its management emphasises on the importance of interpreting archaeological record so as to promote the importance of cultural heritage and promote cultural tourism. This unit also demonstrates how knowledge of archaeology aids in understanding the cultural heritage and in turn helps in promoting tourism and heritage walks. Tourism today is considered to be one of the major sources for generating revenue. Economies of certain nation states today such as Sri Lanka, Singapore and Puerto Rico are entirely dependent on tourism. Interpretation of archaeological record also plays a significant role in understanding societal formations, town planning etc. As archaeological records throw light on basic features of ancient civilizations, it also works as a model for present day architects, political and social thinkers towards building our future. It further aims to educate the readers about the organisations working for the preservation of cultural heritage and the importance of heritage sites and archaeological records. In addition, it also tends to understand the relationship between cultural heritage and the citizens of the same cultural zone. On the basis of this attachment, degree of preservation and conservation can also be understood.

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# UNIT 1 EARLY URBANIZATION

**Contents**



**Learning Objectives**

After having studied this unit, you should be able to:

- discuss the characteristics of Civilization;
- understand the Harappan Culture as early civilization in Indian sub-continent;
- describe the rise and fall of Harappan Civilization; and
- discuss the continuity of the Harappan tradition in modern India.

## 1.1 INTRODUCTION

The period between the Stone Age and the Early Historic period was considered to be the "Dark Age" in Indian History. However, the discovery of the Harappan Civilization, the first Bronze Age Culture of South Asia, in the twenties of twentieth century pushed back the antiquity of the settled life in India by two thousand years at one stroke. This was considered to be the greatest archaeological discovery of the twentieth century in the Indian subcontinent. The development and spread of agriculture and pastoralism in South Asia are complex phenomena that have taken place over the course of more than 9000 years. "First light on a long forgotten Civilization" was probably the first reference to the discovery of the today well known "Harappan Civilization" of the Indian Sub-continent by John Marshall in his article in the Illustrated London News dated September 20th 1924 to the western world. However, today this Urban Civilization known for its unique town planning, script, trade contacts with the Mesopotamians, well developed craft techniques etc. is the focus of popular academic debate not just within the sub-continent but international academic circles especially since even today we have not been able to decipher their writings.

## 1.2 ORIGIN AND EXTENT

The earliest excavations and scholars (Mackay, 1928-29; Marshall, 1931; Vats, 1940) interpreted the rise of the Harappans as a result of a Near Eastern or external

stimulus based on simple diffusion models (Fairservis, 1956; Gordon and Gordon, 1940; Piggott, 1950; Sankalia, 1974; Wheeler, 1947, 1968). However, today ideas of indigenous development (Durrani, 1986; Jarrige and Meadow, 1980; Mughal, 1974b; Shaffer, 1982b) as a result of regional interactions among the existing earlier groups of people is believed to be the cause for the development of this civilization covering an area of 2.5 million sq. km nearly four times the size of its contemporary Mesopotamian and Egyptian Civilizations. The northernmost site is Manda on the River Beas in Jammu while Bhagtrav on the Tapti in Maharashtra forms its southern boundary. Alamgirpur on the Hindon river near Delhi and Sutkagendor on the Arabian sea shore near the Iranian border form its eastern and western periphery respectively. Today the Harappans are believed to be a complex of many ethnic groups (Mughal, 1990; Possehl, 1982, 1990b; Shaffer and Lichtenstein, 1989; Thapar, 1979), representing several cultural identities with large regional urban centers like Harappa (Punjab), Mohenjodaro (Sindh), Rakhigarhi (Haryana), Dholavira (Kutch/Gujarat) and Ganweriwala (Cholistan) (Fig. 1.1) supported by numerable craft centers, and smaller village settlements practicing agriculture which supported this urban and international trading economy.


**Fig. 1.1: Map showing the spread of the Bronze Age (Harappan) Culture of South Asia and the locations of important sites**

The Indus valley civilization was first discovered and recorded in the 1800s by a British army deserter, James Lewis.

## 1.3 ECOLOGICAL SETTING

The environmental setting of the Harappan Civilization includes two major river systems and its flood plains, the Indus and the Ghaggar-Hakra (now dry); the highlands and plateaus of Baluchistan to the west, and the mountainous regions of northern Pakistan, Afghanistan, and India to the northwest and north. These geographical regions include highlands and lowlands, coasts and interior with distribution of land suitable for agriculture and pastoralism, the location of specific resources the procurement of which influenced the patterns of social and economic interaction and helped define social status.

## 1.4 CHRONOLOGY

The Harappan culture cannot be studied as a homogeneous cultural phenomena as the cultural assemblages are varied, and include the Pre/Early-Harappan between 3500-2500 BC; Mature Harappan between 2500-2000 BC and the Post/ Late Harappan after 2000 BC. A date of 2600 B.C. marks the approximate beginning of the urban fabric of the Harappans with the unification of the urban settlements, the use of writing, weights, Harappan-type ceramic designs, civic planning, etc. and is believed to have disintegrated by 2100-1900 B.C. (Shaffer, 1991).

## 1.5 ORIGIN AND DEVELOPMENT OF THE HARAPPAN CULTURE

The earlier hypothesis that the Mesopotamian civilization that flourished in the confluence of Tigris and Euphrates rivers in Iraq was directly responsible for the origins of the Harappan Civilization is no more valid. The excavations carried out at the site of Mehrgarh at the Bolan pass in Baluchistan in seventies and eighties have produced sufficient evident to indicate that the origin is indigenous in the Indian subcontinent. There has been a gradual growth from the beginning of settled life at Mehrgarh around 7000 BC, which ultimately culminated in the formation of the Harappan Civilization. At Mehrgarh, seven developmental stages have been identified and in each stage is evident introduction of some Harappan elements.

The favourable climatic conditions, strong agricultural base in the Indus and Ghaggar and Hakra basins and Saurashtra, rich sea-coast and desert for natural resources were responsible for the development of the Harappan culture. Also the society was becoming ready for such a change.

## 1.6 THE HARAPPAN URBANIZATION AND STANDARDIZATION (2500-2000 BC)

The urban or the mature Harappan Phase includes a wide range of urban and non-urban rural sites that are varied in size and function but are inherently known for several features like the town planning with defensive walls with impressive gates around the site, two or more divisions of the settlement at the site, drains, baked brick structures, brick size (4:2:1 ratio), pottery, script, similarity in craft products and techniques (etched carnelian beads, copper-bronze artefacts, lithic blades), seals, weights and measures, evidence of external trade etc which help identify and denote them as a Harappan settlement irrespective of their size or urban/rural character. Some of these features have been touched upon in the following section.

***Town planning***

From excavated remains, it is clear that the Harappan Civilization possessed a flourishing urban architecture laid out on a grid pattern with provisions for an advanced drainage system and the most important innovation was the standardization of the bricks in a size ratio very close to 4:2:1. The citadel, defense walls, dams etc prove to the existence of monumental architecture. Mohenjo-Daro, Harappa, Rakhigarhi and Dholavira were by far the largest urban centers of the Indus civilization evidently as important political and administrative regional centers. The metropolitan centers were internally divided into two or more parts: the Citadel for rulers and the Lower Town for the common people.

The private houses were oriented towards a central space, with access from the street by an entrance that blocks the view of the interior of the house. A group of houses are associated with one or more private wells and approximately 700 wells have been identified in the core area of Mohenjodaro (Jansen, 1989). The number of wells and their association with neighbourhoods could indicate a need for discrete and relatively private water sources.

The large public structures have open access or provide a thoroughfare from one area of the site to another like the “Great Bath” of Mohenjodaro, and the “granaries” at Mohenjodaro and Harappa. The “Great Bath” is a large, water-proof tank but its exact purpose remains unknown. The so-called granaries at Mohenjo-daro, Harappa and Lothal are today massive foundation platforms for a superstructure no longer evident.

The cities and smaller settlements also had carefully designed and well maintained drainage systems. Wells and bathing platforms were lined with bricks, and small drains carried water away from the wells or living area to larger street drains (Fig. 1.2). The street drains were equipped with sump-pits and the streets had bins for non-liquid waste, which was presumably collected and dumped outside the settlement.

**Fig. 1.2: Recent evidence of town planning excavated at the site of Farmana in Haryana State of India**

The sites were laid out on a rectangular grid of main streets and smaller lanes with an efficient drainage system. The grid-like arrangement of the streets and the stark uniformity of the houses suggest rigid state control, the first instance of town planning in the world. Such a layout is not indicative of a town that has developed from village beginnings; rather, it is the sign of a newly conceived, or relocated, settlement (c.f. Gupta, 1997). The citadel was raised on high mud platforms and its architectural units may have functioned like a palace complex combining the functions of defense stronghold, meeting place, storage area, ceremonial centre, and perhaps the site of community feasting. In the major cities a defensive wall made of mud-brick protected the citadel and often the lower towns as shown by the excavations at Dholavira (Bisht, 1993; Gupta, 1997).

### *Subsistence and Economy*

The economy was largely based on agriculture, animal husbandry and trade with specialised exchange networks for the procurement and distribution of raw materials and manufactured items within and beyond the civilization in existence. All the evidence indicates that the subsistence base of the economy remained much as it had already developed at Mehrgarh some two millennia earlier. The Harappan civilization apparently evolved from their predecessors, using irrigated agriculture with sufficient skill to reap the advantages of the spacious and fertile Indus River basin while controlling the formidable annual flood that simultaneously fertilizes and destroys (Kenoyer, 1991).

Even though most settlements were located in semi-arid areas with winter rainfall their wealth was based on a subsistence economy of wheat and barley. These winter crops, together with chickpeas, mustard, and field peas, were the staples. The other crops grown were rice, dates, melons, green vegetables (primarily legumes), and cotton. Cotton, a summer crop, was grown for fibre. The Harappans cultivated a variety of grains and harvested two crops a year. Fishing and hunting supplemented the diet. The Harappans developed an elaborate water management system and at the site of Dholavira in Kutch a network of dams, canals and reservoirs were used to manage the meagre and crucial water resources (Bisht, 1993).

### *Industry*

The Harappan civilization boomed with industrial activity and a wide range of mineral resources were worked at various sites notably marine shells, ivory, carnelian, steatite, faience, lapis lazuli, gold, and silver. Craftsmen made items for household use (pottery and tools), for public life (seals), and for personal ornament (bangles, beads, and pendants) for elite markets and long-distance trade. The crafts were seen as producing standardized artifacts that were distributed throughout the Indus region. Often there is evidence of specialised crafts being segregated in specific sites (Shortugai, a lapis lazuli mining and processing center, Nageshwar, a shell-working site) and also specific areas of the sites (Chanhu-daro had many groups of artisans involved in the production of elite status items such as seals, long carnelian beads and copper objects). The standardization of crafts is attributed to centralised control of production, organised by a state-level organisation (Piggott, 1950; Wheeler, 1968) or the result of a conservative ideology (Fairservis, 1984a; Miller, 1985).

### Terracotta Art

Harappan pottery is perhaps the finest in India and is betokening of the achievement of the Harappan potter. It is made of extremely fine, well-levigated clay, free from impurities, and is uniformly well fired. The surface is treated with a red slip over which designs are executed in black. The painted patterns are rich in variety and the characteristic ones include intersecting circles, fish scales, the pipal leaf, etc. but the bulk of the pottery is plain. Typical Mature Harappan shapes include S-shaped jars, the dish-on-stand and perforated cylindrical jars.

Terracotta figurines of humans and animals are an important part of the cultural assemblage of a Harappan site along with beads.

### Copper/Bronze Metallurgy

Use of copper and bronze for shaping tools, vessels and ornaments was a characteristic feature of the Harappans. Most of the artifacts found are tools of everyday use such as axes, adzes, knives fish hooks, chisels (Fig. 1.3) including pots and pans and items of personal use such as jewellery in form of bangles, beads, diadem strips, while relatively few weapons of war have been found. Though the technique of manufacture of these objects is advanced, we do not witness any elaborate ornamental decorative aspects to these items and were at large of a simplistic and modest style probably very typical to the Harappan ideology.

**Fig.1.3. Some of the copper/bronze artefacts of the Bronze Age Culture**

Interestingly most copper artifacts have been found at larger and economically developed settlements in comparison to small agricultural settlements which indicates that it was not in popular use and could have been a symbol of wealth and status. However, most copper artifacts including ornaments and vessels have been found in a non-hoard context which include burials (out of 168 total copper/ bronze ornaments 130 were found in non-hoard context) as against other metal objects especially gold and silver (largely hoards and catches), though some copper vessels and beads in hoards cannot be ignored completely. Also the amount of copper/bronze artifacts found at Harappan sites (burial, on sites and hoards) is much less in comparison to the contemporary civilizations, probably as an object of scarce availability and a symbol of wealth and status it was passed over from one generation to another and also recycled as is the case today in the region (Agrawal, 2007).

The source for this copper has yet not been identified but the Khetri mines on the Aravalli is the most plausible option. Some scholars have also identified the copper mines in northern and southern Baluchistan, Afghan Seistan as an important source since the Harappans seem to have established flourishing trade relations with the Helmand tradition of this region. The Oman peninsula with evidence of Harappan artifacts and short term Harappan settlements is a candidate for the source of Harappan copper as well. Agrawal (2007) considers the Aravallis as the most likely source for the Harappans especially as the Ganeshwar complex sites have yielded more than 5000 copper objects, with some typical Harappan types like thin blades, arrow-heads etc. Besides Mesopotamians imported copper from *Melluha* which is traditionally identified as the Indus region and hence the idea of a local source holds stronger ground than import from an outside source though the other mentioned sources could also have been tapped for recasting, fabricating and then export to Mesopotamia. However, Kenoyer and Miller argue that there is no direct evidence of Harappan phase mines or smelting sites in the Aravalli copper source areas, even though the area has been explored by numerous scholars (Piggot, 1999) and hence we are still at no particular consensus as far as the source for Harappan copper is concerned.

The Harappans are referred to as a Bronze Age culture, though they seemed to have preferred use of pure copper since a larger repertory of the artifacts are made of pure copper. Copper alloying though was a common aspect of metallurgy within the contemporary civilizations of the Harappans, only 30% of the 177 copper artifacts analysed from Harappa and Mohenjo-Daro indicate tin, arsenic, nickel or lead alloying, of which tin is the most common. The amount of tin ranged from 1-12% in the bronze artifacts studied.

The manufacture of copper/bronze objects involves two- three levels of industry. The first and the foremost is obtaining the metal from its ore through smelting for which we do not have any direct evidence in form of slag or the ore at either, the settlement sites or at the Khetri mines the so-called source for Harappan copper. Hence, right from the outset we are at a loss for the source of this metal and it has to be put forth that most likely the Harappans obtained the metal from outside as ingots which could be worked by casting through melting and shaping the molten metal through a stone, terracotta or sand mould or direct fabricating or forging and shaping the metal through heating and beating techniques. There is evidence of plano-convex disc shaped ingots with an uneven puckered top surface from Mohenjodaro, Chanhudaro, Harappa and Lothal which it seems was further worked by the copper smiths for producing the objects required.

A detailed analysis of the copper artifacts indicate that the Harappans were aware of the lost wax process or *cire perdue* as the two dancing figurines and a covered cart without its wheels and another complete with the driver from Chanhudaro are manufactured using this closed casting technique. According to Mackay (1938), a large number of blade axes were manufactured using closed casting technique and "were so faulty and full of blow holes as to be unusable except for re-melting". However the absence of moulds at any site except Lothal (not accepted by Agrawal, 2007) is suggested as a result of use of sand based moulds which disintegrate when exposed to nature and hence create a vacuum in the archaeological context.

Several other objects especially the flat celts and axes indicate open mould casting with slow and controlled cooling of the cast metal.

However the maximum objects are of the forged category which is basically the shaping and modification of non-molten metal using the force of a hammer on hot or cold metal. Forging helps shape and hardens the objects and hence is an important aspect of manufacture of edged tools of every day and industrial use, which are the most common finds at Harappan sites (of 521 objects for Chanhudaro, 645 are tools, 26% are ornaments, 7% were vessels and 3% percent included the miscellaneous objects). The most common example is the Harappan chisel which was forged from a cast copper bars, while thin razors were cut from copper sheets and then forged to form a sharp cutting edge. Most of the copper vessels were also manufactured by beating the copper sheet into the required shape.

Besides copper the Harappans worked with gold, silver and lead as is exhibited from the artifactual evidence.

**Shell**

Gujarat was one of the main centres for production of shell objects from the *Turbinella Pyrum* which was cut and worked using a bronze saw. Nageshwar, Bagasra, Kuntasi etc have been identified as important shell working centres for procuring raw material and processing finished goods like bangles, beads, pendants, decorative inlay pieces, spoons and ladles etc.

**Stone**

Various types of stone was worked for different purposes which varied from lithic tools made of chert and chalcedony, seals carved of steatite for public utility to objects of personnel use especially ornaments like beads, bangles pendants etc made of, technologically altered and transformed materials like faience, carnelian, paste. Some of this was not only for the local but the international market as well since Harappan carnelian beads have been found at the royal cemetery of Ur.

The Harappans and their crafts have been identified as a technologically innovative group with an indifference towards the regular precious stones like lapis and turquoise. Jarrige sums up their attitude by saying that "they didn't like them because they couldn't play with them" (Agrawal, 2007:323) while Vidale goes on to say " the Indus people are noteworthy of their cultural expression of not power of conquering, but rather power of creating; from abstract universe created in their urban organisation to artificial stone of their microbeads " (Agrawal, 2007:323).

### *Trade*

The evidence for trade/exchange is primarily artifacts made from raw materials with regionally restricted sources, such as marine shell, agate, carnelian, lapis lazuli, turquoise, coloured cherts and jaspers, serpentine, steatite and copper. Transport of objects was probably overland by human porters, cattle carts, and on the backs of sheep, goat, cattle etc. The locations of major settlements were related to the importance of riverine or sea transport as is the case with settlements like Lothal, Balakot, Sutkagendor etc. (Ratnagar, 1981; Jansen, 1989).

Evidence from sites in Mesopotamia suggests that the Harappans (*Meluhha*) exported wood, shell, ivory, gold, decorated carnelian beads, lapis lazuli and perishable items like textiles, cotton and food grains; and much of this trade would have been routed via the Gujarat coast due to its strategic location at the delta of the Indus River. Other goods found are indicative of the trade networks include gold from southern India or Afghanistan, silver and copper from Oman or Rajasthan, lapis lazuli from Afghanistan and turquoise from Iran and Afghanistan. It is believed that trade existed between Egypt and the Harappans on the basis of two terracotta mummies from Lothal. Also the blue colour used by the Egyptians is said to have come from *Indigo* cultivated in India (Zarins, 1992), evidence of which is found at Rojdi. Trade with the west seem to have received a major boost around 2300-2200 BC, and this is when the Harappans set-up small industrial centres all along the resource and coastal regions for promoting their trade. However by 1900 BC trade with Mesopotamia started to decline and by 1700 it had completely disappeared (Dhavalikar, 1997). The presence of cubical weights of precise measures and impressions of seals (sealings) also point to a well-developed and structured system of trade with control and distribution methods. The well developed though undeciphered script was probably also an integral part of this network.

### *The Harappan script*

The urban Harappans can be easily differentiated from their predecessors and successors on the basis of their use of writing which was used for identification of ownership of goods or economic transactions, accounting, the recording of socio-political or ritual events (Fairservis, 1983; Parpola, 1986). The origins of this writing system is not clear and till date has not been deciphered due to the lack of a bilingual text and also because the inscriptions are very short, usually only of about five discrete symbols (Parpola, 1979).

However this has not restricted academic debate and linguists suggest affinities with Proto-Dravidian or Indo-Aryan language (Fairservis, 1983; Parpola, 1986) without any consensus or proof. Though now it is generally agreed that writing was from right to left and is most commonly found on the intaglio seals, made of carved and fired steatite, steatite, clay or faience tablets and numerous incised tools and ornaments and often on pottery before or after firing, stamped on pottery, terra-cotta cakes or terra-cotta cones (Joshi and Parpola, 1987).

These writings or symbols regardless of its understanding by the modern scholars do represent a shared belief and ideology that was distributed over an extremely large area which was undoubtedly a key factor in the integration of the urban and rural populations spread over varied ecological settings.

## 1.7 RELIGION

Wheeler (1968) emphasised that religious and secular activities were indivisible concepts, and this fact applies not just to ancient past but even today as can be often seen from the religious symbolism of modern Indian sub-continent. Even today several tools and toys used in secular form acquire a "ritual status" with changing contexts. Many objects and symbols have been seen as representing Harappan "religious" beliefs and practices and include seals, horned male deities, Mother Goddess figurines, fire-altars, etc. However all attempts to correlate these objects and scenes to Indian mythology and religion or to the contemporary Mesopotamian religious belief have failed due to lack of deciphered text (Allchin, 1985; Ashfaque, 1989; Dhavalikar and Atre, 1989; Fairservis, 1975, 1984b; Parpola, 1984, 1988).

Religious traditions and beliefs are also witnessed in the death rituals and Harappan burials also indicate localised patterns (Kennedy and Caldwell, 1984). The cemeteries are small and do not appear to represent the entire society, hence, it is possible that certain groups practiced burial while others used cremation or exposure while variation in the mode of burial and the quantity of grave goods also indicate difference of social and religious norms.

Wheeler (1968) had put forth local cults and a state religion) n, which is similar to what he witnessed in the living traditions of numerable local cults and a larger religious ideology indicating a pantheon which is-all inclusive. Fairservis (1986) proposed that cities such as Mohenjodaro were primarily ceremonial centers and that "religion" was an integrating factor using a complex system of shared beliefs and rituals legitimizing the economic and political control.

## 1.8 THE HARAPPAN SOCIETY AND POLITY

It is still impossible to do more than a guess about the social organisation or the political and administrative control implied by this vast area of cultural uniformity. The evidence of widespread trade in many commodities, the apparent uniformity of weights and measures, the common script, and the almost common currency-of seals, all indicate some measure of political and economic control probably originating from the large regional centres. The presence of status objects throughout the Indus region indicates a strong socio-political and religious system of beliefs that demanded and prompted the acquisition and use of such items. A sufficient supply would have been ensured by economic networks and the spread of specialised artisans and technologies to major sites and interestingly there is no evidence for acquisition by force which is obvious in the near absence of weapons of war. The acquisition of exotic goods must be seen as the accumulation of grain or livestock surplus - in an increasing status differentiation between those who have and those who have not.

There is no clear idea about the composition of Harappan population in spite of the fact that a number of their grave-yards have been excavated. The sites like Harappan, Kalibangan, Rakhigarhi, Lothal, Farmana (Shinde et al. 2009) (Fig. 1.4) have produced separate cemeteries, but due to lack of sufficient scientific analyses such as DNA, Isotope and Trace Element, etc features like genetic aspects, health and dietary habits of the people are not sufficiently known yet. However, social stratification is evident in their burials.

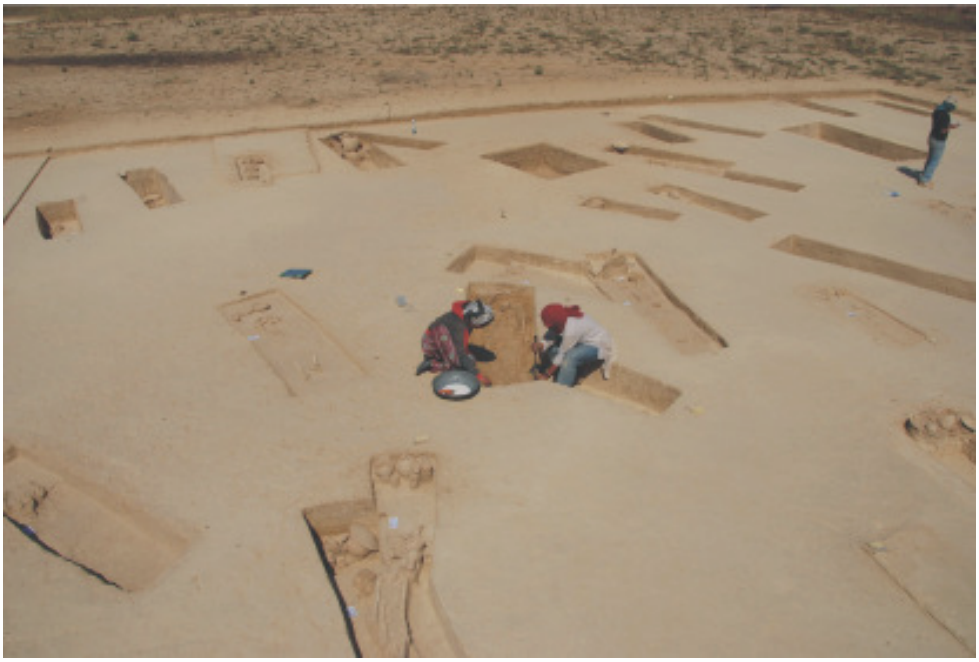

**Fig.1.4: Burials of the Bronze Age culture excavated at the largest Necropolis discovered at Farmana, Haryana State of India**

## 1.9 DECLINE OF THE HARAPPAN CIVILIZATION

The decline of the Harappan civilization commenced from around 2000 BC. Wheeler had hypothesized in sixties on the basis of human skeletal remains in the upper levels at Mohenjodaro that the Harappans were massacred by the Aryan god Indra. However, subsequent scientific studies on the human skeletal data revealed no injury marks and hence his theory was discarded. Recent research on this aspect revealed that climatic factor was the most important for the decline of the Harappan Civilization. The data on rainfall pattern gathered from all over the globe clearly indicated that the climate had gone dry considerably, which affected their agriculture. The Ghaggar/Hakra, the most important river for the Harappans, went dry and the Harappans had to move away from the river banks to the inland areas. The Indus river was blocked near the site of Mohenjodaro creating huge pools around, which buried its most of the satellite settlements. The sea level went down considerably which rendered most of the Harappan ports useless affecting severely its international trade with Persian Gulf and Mesopotamia. All these factors combinely led the downfall of the Harappan Civilization.

After the downfall, the Harappan culture disintegrated and broke into a number of small local cultures. They continued the Harappan tradition upto 1500 BC. The Harappans almost deserted the core region and began to move towards the periphery part. In UP, they came in contact with the local OCP culture, in Central India with Malwa and in the Deccan with the Jorwe culture. Slowly but surely, they became part of the culture they came in contact with. However, the Harappan elements survived through these cultures to the modern times. The Harappan legacy is evident in their structures, agricultural technology, food habits, etc. A modern house in Punjab and Haryana is based on a typical Harappan plan. The shapes of the modern vessels used by the farmers are similar to that of the Harappans, the only difference being in the medium. The agricultural tools used today are based on the Harappan tools. This clearly suggests that though the Harappan culture has disappeared their legacy has still survived.

## 1.10 SUMMARY

To sum up, a short survey of the Harappan cultural material indicates a sufficiently advanced socio-economic and technological fabric capable of developing a complex economic infrastructure and political organisation which involved international relations. As technologically and economically advanced people they were able to expand into a number of ecozones with different environmental variables and economic potential as shown by the location of most of the sites in areas of importance such as resource areas or on trade routes. The Harappans were traders par excellence, which to a certain extent formed the basis of their urbanised status through trade contacts.

### Suggested Reading

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### Sample Questions

1) Discuss the factors responsible for the origins and growth of First Urbanization in South Asia.

2) Describe the distribution of the Early Harappan Cultures in northwest India.

3) Evaluate various theories about the Origins of the Harappan Civilization and the evidence from the site of Mehrgarh.

4) What is a Civilization? Discuss various characteristic features of a Civilization.

5) "SorathHarappan" in Saurashtra is a regional manifestation of the Harappan Culture. Discuss elaborately.

6) Describe various phases of the Harappan Culture based on the excavations at the site of Harappa.

7) Discuss the Harappan hinterland trade and trade mechanism.

8) Describe the Harappan burial custom with special reference to the evidence from the site of Farmana.

9) "Harappan international trade was one of the most important factors for the development of the culture". Discuss.

10) What are various theories about the decipherment of the Harappan script? Discuss the recent theory in detail.

11) How do you compare Harappan Religon with their counterparts in Mesopotamia and Egypt?

12) Elaborate on the functional aspects of Harappan seals and weights.

13) Discuss classical Harappan pottery from technological and functional point of view.

14) Evaluate the evidence from Harappan sites in respect to the Socio/political organisation.

15) What are the causes and consequences of the decline of the Harappan Civilzation?

16) Discuss the characteristic features and settlements of the Late Harappan culture of Gujarat.

17) "The Harappan Legacy continues till the modern times". Elaborate.

18) Discuss the interaction between the Harappans and their contemporaries the Chaclolithic cultures.

# UNIT 2 APPLIED ASPECTS

**Contents**



**Learning Objectives**

Once you have studied this unit, you should be able to

- define the nature of "Applied Archaeology";
- demonstrate the relationship between "archaeological record" and "cultural heritage";
- interpret the role of institutions in heritage studies; and
- analyse the idea of "Archaeological Tourism".

## 2.1 INTRODUCTION

In this unit we will discuss about the usage of "archaeological record "by human societies and individuals. The usage of "archaeological record'/knowledge of ancient materials and applying the same to interpret archaeology of a society is a complex process and is completely dependent on time, place and population associated with it. Archaeological records are basically composed of material objects which cannot speak for themselves. Meanings of these objects are assigned to them by individuals or societies and such meanings ultimately influence all other following actions such as applications of archaeological knowledge in different contexts of modern human life. Thus, the interpretation of archaeological record occupies the central place in all archaeological studies.

To comprehend the process mentioned above, we have to understand the roles played by explanatory or interpretative methods in defining archaeological record. Archaeological records were created by people in the past and the knowledge gathered from it, is intended for the public of the present and future generations.

Archaeological knowledge is mainly governed by three basic questions (Gamble 2002:73):

- Who do we want to know?
- What can we know? and
- How do we know?

Is it the individual or the group? Is it possible to reach individuals of past societies through archaeological record? Is Archaeology only capable of acquiring fragmentary knowledge on group behaviours? Is there a pattern in all human activities which can be explained if you follow a distinct method of investigation? This dilemma is faced by all researchers and archaeological site managers. One of the best examples in this context is the problem of interpreting archaeological records at Stonehenge (United Kingdom) (see Box 1) to the public and academicians.

**Box 1: Stonehenge, United Kingdom**

Stonehenge is one of the best known prehistoric monuments of England, located in the English county of Wiltshire. The site has huge stones standing freely in space, arranged in an unfinished double circle and contains a large number of Neolithic as well as Bronze Age burials. Archaeologists believe that these stones were assembled in the third millennium BC but their exact purpose is still unknown to us. There are many hypotheses regarding their usage, ranging from astronomical calculations to druidic practices. These kinds of situations create great difficulties and at the same time give liberties to the site managers in interpreting, conserving and preserving the site. (Source: http://www.english-heritage.org.uk/daysout/properties/stonehenge/history; as accessed on 27.11.2010)

Gathered archaeological knowledge about Stonehenge is mainly about group activities where the role of individuals has been lost in the mist of unknown past. But there are other instances where information on individual choices have also been acquired from archaeological records such as individual taste in arrangement of furniture in a room or preference of a certain material over another etc. Each material object contains some intrinsic as well as extrinsic meanings. The importance given to one sort of meaning over another depends on the choice of the researcher and often influenced by intended audience. Therefore, the meaning of archaeological record does not remain static and this has been reflected in all areas of "Applied Archaeology".

## 2.2 APPLIED ARCHAEOLOGY

The field of "Applied Archaeology" denotes the usage of archaeological record or knowledge for the benefit of public. Archaeology's role as a contributing discipline to the body of human knowledge is probably the most significant aspect of its applicability. Apart from this basic usage, which is common for all knowledge-building systems, the field of "Applied Archaeology" has been developed as an emerging discipline with a lot of financial implications. Archaeological knowledge has been utilised in the field of landscape studies, industrial studies (Industrial Archaeology), community and public studies including museum studies (Public Archaeology and Museology), in the field of

built environment, planning and development studies, entertainment industry and last but not the least in tourism and other associated disciplines. All these aspects are subject matters of Applied Archaeology.

Archaeology acts as the key resource in understanding the development of human settlement patterns over the ages, environmental impact on these patterns and subsequent changes. Landscape has been viewed as a basic economic resource and the utilisation processes of this resource can be benefited from ancient wisdoms. Ancient land-use system and efficient use of natural resources are key areas which have been emphasised by archaeologists and planners alike. One of the finest examples of archaeological knowledge on efficient usage of natural resources can be seen at the Harrappan city of Dholavira (see Box 2).

**Box 2: Dholavira, India**

The city of Dholavira is spread over an area of 100 hectares with huge remains of fortified settlements, townships for lower and middle economic groups and an advance system of water management. Kutch area of modern Gujarat is known for the scarcity of water where Dholavira is located. The city existed for nearly one thousand and five hundred years in an environment which was not much different from present times and successfully carried out trade and other activities over a vast area of land mass. The water management system (with at least six reservoirs) of Dholavira may act as a knowledge base for developers and planners in Kutch (Source: http://asi.nic.in/asi_exca_2007_dholavira.asp ; as accessed on 27.11.2010)

Planners have thought about similar use of archaeological knowledge of raised field system – found in the Titicaca Basin of Peru and Bolivia, which was earlier known as a mere waste land.

Industrial Archaeology is another sub-discipline of Applied Archaeology, developed in the 1950s in Britain. The aim of this branch is to study the remains of industrialisation which requires development of new techniques – besides those old ones - used in other branches of Archaeology. This branch has provided important inputs on the impact of industrialisation over landscape and human beings. Stephen Hughes of the Royal Commission on Ancient and Historical Monuments (UK) has shown the relationship between transport and power systems to mines, quarries and iron work (Shaw and Jameson 1999: 306). The centre for Applied Archaeology, University of Salford, considers Industrial Archaeology and built environment studies as integral parts of Applied Archaeology (http://www.sobe.salford.ac.uk ).William Rathje's Garbage Project, set up in Tucson, Arizona, United States, is one important experiment in this subject where archaeological methods were used to understand the pattern of consumption of modern urban population (Renfrew and Bahn 1996:13). The knowledge gathered from these kinds of experiments can easily be utilised by business houses for developing marketing strategies, advertisement campaigns etc.

Community and public studies as well as Museology are other fields where archaeological records or knowledge are often used. Involvement of communities in archaeological work or conservation/preservation of heritage or working towards the dissemination of archaeological knowledge among general public – has been developed as a separate branch of Archaeology i.e. Public Archaeology.

It involves working in public interest to conserve artifacts, sites, built environment, enforcement of heritage legislation, managing museum collections, presentation of the past to the public and assessing as well as reducing the impact of building and construction projects on archaeological remains (Renfrew and Bahn 2005:219).

Museums are no longer considered as simple storage of archaeological records. Museum collections are increasingly targeting educated and uneducated public alike for dissemination of knowledge as well as providing entertaining experiences. Displays are not restricted to the artifacts or ecofacts only but extended to the presentation of archaeological sites as museums where artifacts can be viewed "in action". *Indira Gandhi Rastriya Manav Sangrahalaya,* Bhopal is such a museum, known for its innovative display techniques and efforts towards wholesome visitor experiences.

Archaeological knowledge is often used in fictions, movies and TV serials. The realm of the past always creates huge public interest that has been aptly utilised by authors, actors or film makers. *Indiana Jones Franchise* is a famous example of such usage where the discipline of Archaeology takes the center-stage in a series of movies (see www.indianajones.com). There is a whole genre of computer games, based on Archaeology such as "Lara Croft Tomb Raider" or "Diving me Crazy" – highly popular among the public. There is a danger in such usages as complete imaginations may take over the place of archaeological facts and chances of misrepresentation of archaeological knowledge increase thereof.

Public Archaeology often adds elements of ethics in areas of planning and development. The direct outcome of such ethical perspectives is the "conservation movement". The past has been considered as a limited resource which should be preserved for posterity. Therefore, all development activities should take cognizance of archaeological heritage at its planning stage. It has become mandatory in many countries to get archaeological clearance before the start of any development or construction activity. Public agencies or private commercial farms work in tandem with planners in such projects, on the basis of contracts and this arrangement has been termed as "Contract Archaeology". Development studies, is another field which is utilising archaeological record and knowledge in a positive way. It has been recognised now that archaeological remains can attract tourists and investment in large amount. The use of Archaeology in development sector, promotes sustainable growth practices through community participation. Public attachment to these resources has made archaeological tourism a thriving service- sector industry. It is no wonder that the Taj Mahal is one of the top tourist destinations in India which attracts more than 3 million tourists every year.

The current discussion has demonstrated how Applied Archaeology ensures healthy negotiations between academics and lay people in a fruitful manner.

## 2.3 CULTURAL HERITAGE: VALUES AND IDENTITIES

As we have just discussed, the significance of archaeological record or knowledge lies in its usage by general public. We have already explored different possibilities of using archaeological records and now we know that the key to the success of

conservation and preservation efforts in archaeological heritage lies in informed participation of lay people. If an emotion of belonging develops towards an archaeological heritage, it ensures certain degrees of attachment of the public to that object or site and it also generates awareness about its values. Such emotions of belonging create the ideas of cultural affiliation of a particular object which in turn becomes a valuable treasure for a human group or their culture. These types of cultural treasures are known as "Cultural Heritage" which connects people with their past and provide specific identities to different communities. People now look at Archaeology for finding their cultural roots. Searching for cultural identity has become an extremely relevant quest for post colonial new nation states (such as Zimbabwe).

Not every aspect of heritage is valued and the merit of any aspect of cultural heritage is judged on the basis of contemporary sense of its worthiness and identities it creates. Now "culture" has become a subject of debate rather than a field of consensus. Values added to an archaeological object in most cases (not always) give it a cultural significance. Cultural significance of archaeological heritage can work at different levels such as aesthetic, religious, political, economic etc. The attribution of values to any piece of cultural heritage may be defined in three levels: intrinsic (attached with the place or object – in reality, it is subjective and contextual), institutional (derived from the work of agencies) and instrumental (values measured in terms of economic and social benefits). All these values belong to two types of processes, namely, valuing (appreciating existing value or intrinsic value) and valorizing (giving added values). The entire valuation process of cultural heritage and especially valorizing is guided by power equations. The values assigned to an object by powerful groups (like academics) generally get preference over the values considered important by weaker sections (illiterate population). What should be construed as cultural heritage and what should not, is guided by valorizing processes. These valuation processes are influential in attaching heritage objects to a particular human group which often moulds their concepts of identity. An infamous example of identity crisis as well as valorizing process, associated with cultural heritage, is the destruction of Bamiyan Buddha statues in Afghanistan (see Box 3).

**Box 3: Bamiyan Buddha**

The Bamiyan valley of Afghanistan, encircled by high mountains of Hindukush range, became a flourishing centre of Buddhism in the 3rd Century BC and continued to remain an important trading station till the 13th Century AD. The area is known for its beautiful sculptures of Gandhara School of Art, monasteries, sanctuaries and fortifications of the Islamic period. The most famous edifices of Bamiyan were two colossal Buddha images, measuring 55 and 37 meters – all carved into a mountain cliff. The Taliban government of Afghanistan shocked the entire world by destroying these statutes in 2001. They declared that the existence of these statutes is sinful as they promote the practice of idolatry - forbidden in Islam. Undoubtedly, these sculptures were created locally and signified a direct cultural link between the ancient Afghan civilization and the modern one. The act shows a certain level of detachment of the contemporary Afghanistan from its own cultural heritage. They lost a link to identify themselves with these sculptures and attached only negative values to them. (Source: http://whc.unesco.org/en/list/208 ; as accessed on 28.11.2010)

The above mentioned incident notifies the value of interpretation in preservation and conservation of cultural heritage. The entire field of conservation and preservation of cultural heritage is known as Cultural Resource Management (CRM) in United States or Archaeological Heritage Management in Europe and elsewhere. "Conservation" has been visualized as processes of "looking after a *place* so as to retain its *cultural significance* " while "Preservation" is defined as a process "for maintaining the *fabric* of a *place* in its existing state and retarding deterioration" (Article 1.4 & 1.6; Burra Charter 1999).

## 2.4 CONSERVATION AND PRESERVATION OF CULTURAL HERITAGE

Conservation and preservation of heritage objects starts with their identification by stakeholders and subsequent valorizing processes. The philosophy of these actions are guided by conservation ethics and composed of various technical responses for maintaining *status quo* in heritage objects and space. However there is an inherent contradiction in every conservation and preservation effort as all new initiatives in these directions require further interpretations of the heritage values. Therefore conservation scientists try to consider "all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of the others" (Article 5; Burra Charter 1999).

Conservation and preservation of cultural heritage give special emphasis to the principles of minimum intervention, reversibility and authenticity. These principles are parts of internationally accepted regulations, laws, charters and recommendations, specially formulated for the preservation and conservation of cultural heritage.

## 2.5 LAWS, CHARTERS, CONVENTIONS, DECLARATIONS AND RECOMMENDATIONS

The last one hundred and fifty years document is a slow progress of the legislature in cultural heritage preservation. The history of cultural heritage laws, regulations, charters, conventions or recommendations reflect the political as well as economic considerations that prevailed at the time of their compilation. Either these laws have jurisdiction over a certain nation only or they enjoy wide international acceptance.

The word "Conventions" denotes international legal documents that need ratifications by member states of Inter-governmental organisations such as UNESCO or EU etc. Member states generally enact, modify and implement these conventions at their national level. "Charters" are declarations by a group of experts under the sponsorship of international professional organisations such as ICOM (International Council of Museums) or ICOMOS (International Council on Monuments and Sites) and ratified by sponsoring organisations. "Recommendations" and "Declarations" are similar to charters, but do not enjoy similar level of organisational support.

India has one of the earliest legislative measures in the field of cultural heritage. The first Indian legislation for cultural heritage preservation is known as the Indian Treasure Trove Act of 1878. After the independence, the Indian government

formulated several acts for conservation and preservation for cultural heritage such as the Antiquities (Export Control) Act, 1947; the Ancient Monuments and Archaeological Sites and Remains Act, 1958 (AMASR); the Antiquities and Art Treasure Act, 1972. The AMASR Act of 1958 has recently been amended and validated in 2010. These acts are aimed at protecting, conserving and preserving cultural heritage of national importance and recognise the Archaeological Survey of India, Government of India as the legal custodian of these properties. Each state of India has separate laws, besides those above-mentioned ones, for the protection of other heritage properties, not considered as "sites of national importance" which are located in respective states.

In comparison to the international conventions, charters or recommendations, national laws on cultural heritages have more power over the heritage properties as respective governments can punish the offenders while formers are toothless in this aspect even though they enjoy a larger area of jurisdiction. A few important international conventions, charters, recommendations for the preservation of cultural properties are as follows:

- Charter of Athens for the Restoration of Historic Monuments 1932
- Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict 1954
- The Venice Charter: International Charter for the Conservation and Restoration of Monuments and Sites 1964
- Norms of Quito: Final Report of the Meeting on the Preservation and Utilisation of Monuments and Sites of Artistic and Historical Value (Organisation of American States and ICOMOS 1967)
- Recommendation of Tunis on Conservation, Restoration and Revival of Areas and Groups of Buildings of Historical Interest 1968
- Convention Concerning the Protection of the World Cultural and Natural Heritage (UNESCO1972)
- The Nara Document on Authenticity 1994
- The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (the Burra Charter;4th Edition 1999)

All of these regulations or recommendations reflect the policies of international organisations including intergovernmental organisations (UNESCO, Council of Europe), professional organisations e.g. ICOMOS, ICOM, UNWTO (United Nations World Tourism Organisation), membership organisations (WAC: World Archaeological Congress, Europa Nostra) or one off ministerial conferences (joint dealing of a particular theme).

## 2.6 ROLE OF INTERNATIONAL ORGANISATIONS IN PRESERVATION OF CULTURAL HERITAGE: UNESCO

As we have discussed above, the national policies of different states on cultural heritage, often get influenced by the principles of international organisations. Though these organisations have hardly any implementing power over the sovereign countries, they may exert their authority by mobilizing international

opinion against the defaulters. Inter-governmental organisations (like UNESCO) are especially effective in this respect as member states are voluntary signatories of their conventions. UNESCO or United Nations Educational Scientific and Cultural Organisation, is at the forefront of all international initiatives on cultural heritage preservation. In November 1945, thirty seven countries founded UNESCO and it came into force following the ratification of its constitution by 20 countries on 4th November 1946. Presently, this organisation has 197 members and seven associate members. The main objective of UNESCO is to create a space for dialogue among civilizations, cultures and people, based on shared values to achieve sustainable development. UNESCO recognises diverse forms of culture as found in tangible and intangible heritages and works for their protection and conservation to promote cultural diversity.

Besides UNESCO there are other professional international organisations which are working actively in this field. ICOMOS is a professional organisation which works for the conservation and protection of cultural heritage sites. Currently it has 9500 members through out the world.

## 2.7 WORLD HERITAGE SITES

The General Conference of UNESCO adopted the "Convention Concerning the Protection of the World Cultural and Natural Heritage" in 1972. The convention encourages international understanding of cultural heritage of "outstanding universal value" to the humanity as a whole. It invites the member states to submit an inventory of their heritage properties which includes sites of national cultural and natural heritage, to be included in a list of World Heritage sites. These inventories are known as tentative lists of World Heritage sites. The sites have been divided into three categories namely, cultural, natural and mixed. UNESCO's "Operational Guidelines for Implementation of the World Heritage Convention" specifies ten criteria to nominate sites for inscription in the final World Heritage list. Protection, management, authenticity and integrity of properties are also important considerations.

Once a site is inscribed to the list of World Heritage it receives international recognition for its heritage values and the owning nation often gets assistance for safeguarding that property. Nearly US $ 4 million is annually available for assisting the member states in identifying, preserving and promoting the World Heritage sites. Emergency assistance is also provided to the countries to repair the damages caused by man-made or natural disasters. These damaged sites are enlisted in the "List of World Heritage in Danger" which enables them to get attention of the international community for catering to their particular conservation needs.

By signing this convention the state parties agree to protect not only the World Heritage sites but other national heritage properties, situated within their territories. The states report regularly on the conditions of these World Heritage sites to UNESCO which reviews and assesses these reports to decide on site specific conservation needs and probable solutions for recurrent problems.

The current World Heritage list includes 911 properties - forming part of cultural and natural properties of humankind which the World Heritage Committee considers as having "outstanding universal value". India is an active member of

the World Heritage Convention since 1977 and presently has 27 world Heritage properties which include some famous tourist destinations like Taj Mahal, Rock Cut Caves of Ajanta, Churches and Convents of Goa, Kaziranga National Park etc. The Archaeological Survey of India is the nodal agency for all World Heritage properties in the country.

The declaration of properties as World Heritages has its own problems too. Often these properties become targets of man made damages, done knowingly or unknowingly. The very reason of inscribing one property to the World Heritage list is the cause for attracting millions of tourists to a heritage property. Undoubtedly this influx of tourists boosts local economy and creates new ways of development. But such endeavors also test the carrying capacity of a site in question, definitely mold its characters and influence its authenticity. One of the major challenges faced by UNESCO today is not only making the national authorities, private sector and civil societies realise that the World Heritage convention is not merely a tool for enhancing cultural and biological diversity but also a significant means for sustainable development.

## 2.8 CULTURAL HERITAGE AND TOURISM

Arguably, tourism is the biggest money spinning industry associated with cultural heritage. "Cultural Tourism" has been considered as a subset of tourism proper which includes archaeological tourism. However, a closer inspection will reveal that all types of tourism, where the objective is pleasure, are forms of "Cultural Tourism" only. UNWTO defines "Cultural Tourism" as:

"……..movements by people motivated by cultural intents such as study tours, performing arts, festivals, cultural events, visits to sites and monuments as well as travel for pilgrimages. Cultural tourism is also about immersion in and enjoyment of the lifestyle of the local people, the local area and what constitutes its identity and character".

Naturally, archaeological heritage constitutes the central part of all such tourism activities. A list of top ten tourist destinations in the world in 2007 by Forbes (http://www.forbestraveler.comstory.html) shows, that every entry in this list is actually a cultural monument or a site (Table 1.1).

**Table 1.1: Most Visited Attractions by Domestic and International Tourists in 2007 (Top 10 Tourist Attractions)**

| World ranking | Tourist attraction | Location | Country | Number of visitors (in million) |
|---|---|---|---|---|
| 1 | Times Square | New York City | United States | 35 |
| 2 | National Mall and Memorial Parks | Washington, D.C. | United States | 25 |
| 3 | Walt Disney World Resort's Magic Kingdom, Lake Buena Vista | Orlando | United States | 16.6 |

| | | | | |
|---|---|---|---|---|
| 4 | Trafalgar Square | London Kingdom | United | 15 |
| 5 | Disneyland Anaheim | California | United States | 14.7 |
| 6 | Niagara Falls | Ontario & New York | Canada & United States | 14 |
| 7 | Fisherman's Wharf & Golden Gate | San Francisco, California | United States | 13 |
| 8 | Tokyo Disney land & Tokyo Disney Sea | Tokyo | Japan | 12.9 |
| 9 | Notre Dame de Paris | Paris | France | 12 |
| 10 | Disney land Paris | Paris | France | 10.6 |

These sites easily qualify as "attractions representing human cultural dimensions " (that makes Niagara a "Cultural Tourism" destination too) but only a few of them can really claim to be of profound archaeological importance.

Besides "archaeological tourism", there are several subsets of cultural tourism like "heritage tourism" or "cultural heritage tourism" – all of which have really fuzzy boundaries. The National Trust for Historic Preservation, USA included all historic, cultural and natural attractions in the field of "cultural heritage tourism". The ambiguity of the term creates confusions in understanding its proper role in any given context.

UNWTO notes that in 2008, the international tourism grew by 2% which generated a profit equal to 30% of the world's export service in that year. At a seminar on sustainable development in South Africa 2002, the Secretary General of UNWTO declared that the basic aim of his organisation is to eliminate poverty through tourism.

It is no wonder that tourism has been closely linked with World Heritage sites. UNESCO has noticed an upsurge in tourism activities at every site after its nomination as a World Heritage property. Materialising the potential benefits of tourism at these sites require careful planning and well thought-out management strategies. The maintenance of authenticity and integrity of a site is essential for the sustenance of tourism at that particular place and backbone of any management plan. These demands of sustainability force all stakeholders to follow ethics of tourism.

## 2.9 ETHICS OF ARCHAEOLOGICAL TOURISM

We have already discussed about the limited nature of archaeological resources which can not be regenerated or replaced. Therefore all tourism activities should take care of maintaining the "*fabric"* of archaeological treasures so that the level of tourist interest to a particular heritage property does not get diminished. Ethics of archaeological tourism concentrates on responsible tourism practices and promotes active participation of all stakeholders in conservation activities. Such participations include the involvement of general public as well as non-governmental organisations in conservation and preservation drives.

UNWTO has formulated the Global Code of Ethics for Tourism (GCET) as a set of references for responsible and sustainable development of the World Tourism. This code is intended to be a living document which targets it reader for its circulation and the implementation of good tourism practices. Ethics of tourism try to minimise the negative impacts of tourism sector over the cultural heritage. All nine articles of the GCET speak about the rules of responsible tourism while the tenth article provides a mechanism for redressal of grievances and enforcement of tourism regulations.

Article 4 of this code of conduct especially deals with archaeological and cultural heritage. Tourism has been visualized here as a user of cultural heritage and a contributor to its enhancement. It recognises the right of mankind and particular communities over a cultural heritage. In addition to these rights, UNWTO recognises the need of participation of all stakeholders in management of cultural properties. The code emphasises the necessity of conservation of such properties and also the responsibility of the site managers in providing "meaningful and considerate access to as many visitors as the site can allow". All of these ethical practices are intended for better visitor experiences which are dependent on supportive infrastructures – built on sustainable management practices.

## 2.10 VISITORS, INFRASTRUCTURE AND MANAGEMENT

Anybody is a potential visitor to a cultural heritage site and all heritage properties are ultimately intended for wholesome visitor experiences. A visitor travels to a site for gaining pleasure in a variety of manners. Ethics of tourism restrict visitors' freedom at a cultural heritage site to conserve it for future generations. Visitors ensure recognition of a site, help in developing the infrastructure and create employment opportunities for the local people. A successful management strategy helps visitors in interpreting the sites through proper conservation initiatives, guidance and ultimately creates a feeling of belongingness to the site in the mind of the tourist/visitor.

Visitor arrivals have negative impacts on the sites too. It is an act of external intrusion to the local life which creates local imbalance and may cause a concern for the security of the site (international smuggling of artefacts is a serious threat to archaeological monuments and sites). The alien domain of other past cultures often gets mingled with present cultural conditions which influences certain expectations of the tourists from the local communities (the concepts of objective authenticity = museum version; constructive authenticity = something that can emerge beyond the objective authenticity or acquire social recognition as authentic – are important here. Cole 2007:944).

**Reflection and Action on 2.3 and 2.4**

How does the interpretation of an archaeological site affect its management strategies? Reflect and analyse.

These visits may prove to be financial burdens to the site management authorities as visitor influx requires proper investment in infrastructure development. To establish a balance between visitor influx and conservation efforts, visitor

movements in cultural heritage properties are restricted through the implementation of proper management strategies like fixing of opening and closing hours, controlled visitor movements, limiting the number of visitors per day and raising entrance fee etc.

The infrastructure for roads, accommodation, food and communication are basic needs of every site to cater to the demand of tourism. Investments for these activities are not easily available in developing economies. The amount of money spent at a site is often the major deciding factor in measuring the strength of the infrastructure and the carrying capacity of a site. The amount of expenditure on a site is generally influenced by its importance among the tourist destinations and the relationship between these two factors is basically cyclic in nature. If money is not spent, a proper tourism infrastructure will not be built. The absence of infrastructure will reduce the number of tourists at that site. If the number of tourists at a site gets reduced, it will loose its importance as a major tourist destination and will attract less amount of investment and so on.

A good management plan makes arrangements for all these factors and develops policies after considering the values, resources and constraints of the sites. All management plans are aimed at managing changes, identifying possible solutions and making decisions in informed contexts. A successful management plan is vigilant on conservation ethics, participatory in nature and promotes sustainable development practices.

## 2.11 SUSTAINABLE TOURISM

Constant influx of more than optimum number of visitors (the maximum number of tourists a site can contain) deteriorate its environment and may prove harmful to the future prospects of the site. It creates pressure on the infrastructure and makes it vulnerable to future failures. The publicity initiatives like advertising to attract tourists, sometimes add woe to the sites too. The pressure of tourism at the famous rock cut caves of Ajanta, India (a World Heritage Site), seriously damaged the site that forced the conservators to suggest restricted tourist inflow at this place. Costly measures to check further damages are not easy to perform in cash-strapped developing economies. UNESCO, Bangkok is studying the impact of tourism on cultural heritage sites in Asia for the last couple of years and suggests “controlled tourism” as a measure for restricting further damage.

In this context of growing threats to heritage sites, the World Conference on Sustainable Tourism created a charter in 1995 to protect heritage sites from such damages. It is known as the Charter for Sustainable Tourism. It describes the positive and negative aspects of tourism and calls for planning and management of tourism for the conservation and protection of heritage properties. The charter visualizes the objectives of sustainable tourism to be ecologically bearable, economically viable, socially equitable for local communities and sustainable to the future. The Charter advises to assess the impact of tourism on cultural and natural heritage and recommends special assistance to the areas that have been degraded by tourism activities. Now UNWTO promotes the idea of sustainable tourism in all of its activities.

## 2.12 SUMMARY

In the present unit we have tried to cover all major aspects of Applied Archaeology. The discussion moved around the basic concept of archaeological record, its meaning and utilisation. Now we understand the powerful role of "interpretation" in applications of archaeological knowledge which guides all other "valorising" processes and makes objects or places culturally significant to different communities. The communities in turn develop a feeling of belongingness to these properties and thrive for their conservation and protection. The role of intergovernmental organisations such as UNESCO is important in this respect which was instrumental in enacting the World Heritage Convention and its implementation. This convention helps in creating World heritage properties and promotes them for tourism. Culture of archaeological tourism has its own benefits and problems too. It is crucial for development initiatives but at the same time, diminishes the values of these properties. The basic aim of all cultural tourism activities is to create general awareness about ethical tourism practices and provide means for sustainable tourism. Cultural heritage is a limited source and it should be accessible to all and preserved for future generations to come and cherish.

### Suggested Reading

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Guide Books: *World Heritage Series.* New Delhi: Archaeological Survey of India.

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### Useful Links

The Archaeological Survey of India: http://www.asi.nic.in

The Getty Conservation Institute: http://www.getty.edu/conservation/

ICOMOS: http://www.icomos.org

ICCROM: http://www.iccrom.org

UNESCO: http://www.unesco.org

UNESCO World Heritage Centre: http://www.unesco.org/whc/

UNWTO: http://www.unwto.org

**Sample Questions**

1) What is Public Archaeology? Discuss the role of public Archaeology in heritage Management.

2) What do you know about UNESCO World Heritage Sites? Reflect on the problems of maintaining a World Heritage Site.

# UNIT 3 CULTURAL RESOURCES

**Contents**



**Learning Objectives**

Once you have studied this unit, you should be able to:

- discuss the definition of Cultural Resource vis-à-vis Cultural Heritage/ Heritage Culture;
- understand the initial sources of Cultural Resource;
- describe the subsequent sources of Cultural Resources;
- explain the cultural Resource Management (CRM); and
- understand the legislation towards protection of Cultural Resources.

## 3.1 INTRODUCTION

Cultural resources refer to both tangible and intangible heritage. The present lesson focuses on tangible heritage. In simple words it includes both man-made and natural features associated with human activities. Cultural resources are the heritage of mankind and therefore such evidences require our attention. They are all unique, non-renewable resources and comprise of sites, structures/monuments, features and artifacts significant in human history. As a matter of fact, history of mankind has been reconstructed with the help of varieties of cultural resources, which were left behind by our early ancestors. Tangible variables of human culture in most parts of the Old World and in the New World occur in the form of some objects that draw the attention of modern man, and such archaeological remains help in the reconstruction of history of mankind.

Here in this sub-unit on Cultural Resource Management, we will learn the definition of "Culture", 'Cultural Resources' and "Cultural Resource Management".

With a series of evolution on the positioning of thumb and big toe, enlargement of his cranial capacity, he adopted bipedalism and realised the needs to develop tools for his day-to-day activities. A tool is the smallest unit of cultural resource. As this Cultural Resource is a reflection of his thoughts and actions, it may be viewed as incorporating both tangible and intangible traits of man.

## 3.2 CULTURAL RESOURCE MANAGEMENT (CRM)

Today, CRM is understood in terms of taking care of the archaeological remains and in management of the cultural resources. It deals with the application of management skills to conserve cultural heritage for the benefit of the public and future generations. The idea of *Cultural Resource Management (CRM)* came into existence in the mid 1970s and brought an end to the anxieties of archaeologists and folklorists over the destruction of archaeological remains, historical buildings and paved a way to look into the dimensions of intangible variables.

## 3.3 EXPOSITION OF CULTURAL RESOURCE BY EXPLORATION AND EXCAVATION

Modern man got acquainted with antiquities from different parts of the world during his travels which was necessitated by trade and missionary activities. He collected objects which appeared queer to him with an intention to decorate his sitting room or his drawing room, and on certain occasions collected such objects to demonstrate them before scholars. During the renaissance movement in Europe there was a great demand for antiquarian objects from the new world. The widespread interest and demand for these objects led to the looting and smuggling of antiquities in order to cater to this demand. In the initial stages, objects of cultural and antiquarian significance was collected by man merely to satisfy his curiosity which later became important as humans understood that the objects they collected represent activities of their ancestors. This slowly became an organised exercise and came to be known as exploration followed by unearthing the buried past known as excavation. Since ancient times, thieves and thugs had been looting antiquity-rich places for buried or hidden treasures.

Heinrich Schliemann, a German businessman in 1873 discovered around seven cities in Greece including Homer's legendary city of Troy. Being a wealthy merchant at St. Petersburg, Russia, he started the first digging in search of the city of Troy at Hissarlik, with a manpower of 150 workers. Owing to the unsystematic nature of his work, Schliemann destroyed more evidence compared to the discoveries he made and out of his interest towards the great gold treasures, which he allowed his Greek wife to wear on her neck, which was 'unethical' in today's terms and in this process he destroyed the upper layers.

Fox Pitt-Rivers later formulated a formal procedure of scientific excavation with historical tradition. Augustus H. Lane Fox was a military General, later changed

his name to Augustus H. Lane Fox Pitt-Rivers, and inherited Rivers Estate in southern England after he retired from military service in 1880. Finally, he became popularly known as Pitt-Rivers who pioneered methods of elaborate and painstaking procedures of excavation that the archaeologists undertake today. Flinders Petrie was one of his contemporaries and contributed a lot to the development of archaeological methods. No doubt excavation is rightly called the destruction but what it retrieves forms the base to reconstruct the cultural history of a locality. The excavation what we see today is a further modified version of the earlier by several people, particularly Sir Mortimer Wheeler.

## 3.4 LEGISLATION AND SALVAGE ARCHAEOLOGY

In order to prevent merciless and massive destruction of human heritage, certain rules restricting the damage of sites, structures and artifacts relevant to history or archaeology were necessary. In India, under an act called, Antiquity Preservation Act, 1904, which was later amended in 1947 with certain modifications gave powers to the State and Central Government authorities to safeguard, protect and preserve the cultural heritage. Legislation was enforced not only to conserve the remains but also towards conservation of the sites at the Government level. The remains of Indus Valley Civilization was first discovered accidently while constructing a railway line in Northwest India during British rule. The Government immediately went ahead with its excavations followed by the conservation of its ruins.

Cultural Resource Management (CRM), in most cases is an affair of the Government who will take note of different discoveries in its country and take adequate steps towards protection and conservation of the site along with its ruins. Upon urgent demand of an endangered site, action to protect the site will be undertaken under the purviews of Salvage archaeology. There are many examples in this regard and UNESCO's project of re-locating the Abu Simbel temple in Egypt is the first of its kind. When Abu Simbel temple was endangered in the wake of construction of the Aswan High Dam resulting in rise of water level of Lake Nasser, UNESCO undertook the Salvage operation. A similar project of 15 years' duration was undertaken in Andhra Pradesh at the Nagarjuna Sagar or *Nagarjuna Konda*.

All the famous historical remains in India, particularly in the Northern and North-western India such as the Taj Mahal, Fatehpur Sikri, Lal Quila and others are looked after by Archaeological Survey of India. There are many monuments of these kinds in other parts of India. In Assam, all the historical sites belonging to Ahom Kingdom at Sibsagar and its Royal burial grounds at Charaideo, famous Khaspur ruins near Silchar, world renowned *Shaktipith*- the Kamakshya temple at Guwahati, Surya Pahar at Marnai in Goalpara are some of the remains under the protection of the Archaeological Survey of India. In other parts of the World there are private agencies that work in this direction on contract basis.

## 3.5 MANAGING OF ARCHAEOLOGICAL SITES

In India in addition to the Archaeological Survey of India, all the State Governments have Departments of State Archaeology together with Historical and Antiquarian Study Departments responsible for undertaking surveys to trace

the existence of antiquities in the form of sites, monuments and similar structures in their respective States. Upon receiving information, the Registering Officer from the said agency visits the locality and identifies the heritage structures. After it is entered in the National Registry, the concerned authority brings it to the notice of the State/Central Government for taking appropriate steps to protect the heritage. Sites and other remains are brought to the notice of the Government with information from the concerned public and also from the sources of construction agency engaged in developmental works. Ambari, a historical site in Assam at the heart of Guwahati City came to public notice and also to the State Museum of Assam when the Reserve Bank of India selected the site for construction of its building. Huge cultural remains were discovered at the site and later the Government of Assam protected the site. On the other hand, protection of Ambari site led local people of the region, engaged in construction of their residential buildings to hide information regarding the cultural finds and the occurrence of any kind of archaeological materials to the authority with an apprehension of the site being taken over by the Government. This is not the only isolated case, in parts of Assam, there are plenty of information of such kind of attitude on the part of the public to conceal the available information of heritage under their residential buildings.

Under the prevailing situations in our country, the conservationists and the archaeologists have to jointly think of overall strategies, conservation priorities, and field-research designs to ensure close linkage between the latest methodological and theoretical approaches followed by salvage excavation i.e. application of salvage operations in the field. In urban localities, it should be made mandatory for all concerned, who want to undertake new constructions, to carry out a survey at their proposed construction sites. After all, we have to conserve our heritage with utmost priority.

## 3.6 COMPLIANCE PROCESS

Compliance involves the question of formulating a practical solution for the continuous loss of cultural heritage materials in our country, and therefore there is a growing need to create a general consciousness and awareness among all sections of population. During the Taliban regime in Afghanistan, the world famous statues of Buddha at Bamian were blown to dust with a total disrespect, irrespective of appeals from all over the World not to demolish the structures. Can we suspect the attitude of a new authority or a community after their conversion to a different religion to ignore the already existing heritage of that place? In fact, it cannot be a situation at all in a secular country like India. It should be the sentiments of the general people to uphold and respect all sorts of archaeological remains in our country irrespective of religious status and identity. However, we must carefully proceed with the policy of conservation of historical and archaeological ruins.

First, an overall assessment of the cultural resources of our country is necessary, followed by an option to make a public appeal, to make the people aware of their cultural heritage in different regions of our country. Accordingly, sites and archaeological remains should be identified for the benefit of the nation for alerting its population about the past heritage of the country. In this kind of compliance process, it may be accepted as a project of awareness and therefore there will be

a necessity of continuous role on the part of the archaeologists and people concerned to tirelessly work towards the preservation of the heritage resources of the country at the State and Central level. It appears not an easy task because it involves so many hurdles to be crossed in the process of negotiating with the Government agencies.

### 3.6.1 Conservation

Brian M. Fagan (1991) writes, *Ethics* in archaeology demand conservation of many sites as far as possible. In this respect, sites which are not threatened by modern infrastructure development, are ideally suitable. However, any investigator involved in such endeavour has to develop a research design based purely on scientific considerations. Nevertheless, many other issues like budget, public interest, possible design alternatives in the development project, and mitigation cost come into play when sites are threatened by imminent destruction. Then, there is the problem of "secondary impacts", when unexpected spin-offs of the main project destroy resources outside the main project area.

### 3.6.2 Management Versus Academic Research

Resource Management and academic research in archaeology enter into apparent conflicting dilemma in any project, which is managed, controlled and carried out by Governmental agencies, unlike in a developed country, which has a procedure of giving an archaeological survey or any authorized agency a contract of preservation. In such situations contracting agencies consider archaeology as an inductive science that comes under normative view. The normative view ascribes a descriptive approach to culture, which can be used to describe culture during one time period or throughout time. Archaeologists view that the surviving artifacts, such as potsherds in regard to their style, its form and its changes are the manifestations of human behaviour over the period of time. Culture-historical reconstruction is a useful organisational tool that has added some descriptive order to world archaeology. Inductive method is useful in general exploratory research that is carried out in case of many large survey areas.

The decade of 1970s saw increase in the utility of deductive research in archaeology when archaeologists began viewing fieldwork and excavation activities (or exploration and excavation) as a problem oriented to testing hypothesis.

### 3.6.3 Research Design

Formulation of a research design is also a primary requirement in cultural resource management or heritage management. An outline of the proposed research with a nomenclature, together with the nature of the project, its methodology needs to be chalked out. The following part involves collection of data, its analyses and finally writing an analytical report. Conservation and Preservation of the same may follow the report submission. A site under immediate threat or a locality selected for developing a project needs to be attended immediately.

A senior archaeologist along with experts in relevant disciplines is ideally suited to undertake a CRM project. However, a large number of hands may be required in such projects and in such situations new entrants may also be trained.

### 3.6.4 Safeguarding and Public Participation

Local population around the cultural remains is the best agency to be chosen to entrust with its protection. Owing to their close proximity to the remains, the local population develops a sense of belongingness to the antiquarian site. These people revere the remains. Further, people in the vicinity also report its existence to the Government or equivalent authority for undertaking the conservation of the site and its remains. Once the site is conserved and preserved, its importance can be spread to the surrounding regions through the means of Public Archaeology and tourism.

### 3.6.5 Public Archaeology

'Public Archaeology' is a branch of archaeology that deals with creating awareness about the cultural wealth and the importance of preserving them. It also encourages archaeologists to understand how a layman views his immediate or distant past. Certain ruins are connected to the people of a locality since time immemorial, and it is closely connected to them in the form of a living practice. The concerned community undertakes certain festivity in close connection with the remains at a particular time of the year. Further, the thoughts and respect for such remains encourage people to initiate social customs. To cite an example, the Megalithic monuments of different shapes and sizes of the Karbis of Karbi Anglong of Assam, since ancient times, are available in plenty. To commemorate this ancient practice of Megalithism, Dilip Medhi (2002) organised three different public functions in the name of 'Megalithic Monument Conservation Day' at Tengralangso and Kamarpha in 1997, at Tika in 1998 and at Nongjrong in 1999 with active cooperation of the local people. Thus, Public Archaeology spread the message of conservation of cultural heritage and resources among the public who become actively involved in safeguarding the archaeological remains and cultural sites. Naga communities hold a stone pulling festival to commemorate the Megalithic practice amongst them.

### 3.6.6 People Related to Archaeological Resources

Ruthann Knudson, points out 'ownership issue' of archaeological sites (1986) with regards to their owner and finds. It may be noted that even in cases when an archaeological site falls within a private property, the ownership of the remains are with the Government as all the material remains belong to either the nation or the world.

## 3.7 IMPORTANCE OF INDIAN ARCHAEOLOGICAL HERITAGE SITES

Starting with the initial discoveries of archaeological evidences during the British regime in India, archaeological evidence began to be incorporated by the historians and archaeologists. Bruce Foote's discovery of handaxe at Pallavaram near Madras in 1863 was an eye opener to South Asian Prehistory. Later V.D. Krishnaswami (1938) reported a very rich and varied Lower Palaeolithic assemblage from the Kortalayer valley in the Chingleput District of Tamil Nadu. Further the discovery of the Indus Valley Civilization at the time of the Railway construction project in Northwest India was a major eye opener to the first urbanization of the subcontinent.

## 3.8 ARCHAEOLOGICAL MUSEUMS

Archaeological Museums are the places where antiquities are displayed chronologically. There are a number of museums all over the world and the United States of America is famous in this respect because apart from public museums, almost each and every Department of Anthropology and Archaeology has an associated museum.

The British Museum was established in the 18th Century. However, the Danish archaeologists were the pioneers in the establishment of a museums of antiquities.Its first curator C. J. Thomsen put forwarded the concept of 'Three Age System' on the basis of its antiquities. In fact, it was an outstanding endeavour of a few Danish elites interested in antiquities, comprising of Rasmus Nyerup, Vedel-Simonsen, Sven Nilsson, J. J. Worsaae and Christian Jurgensen Thomsen who set up the 'National Museum of Danish Antiquities' in 1806 with the small collection of antiquities from the University of Copenhagen. Initially classification of the antiquities were not possible, however, Thomsen initiated it and came up with the Three Age System which meant that the entire history of manknnd passed through Stone Age, Bronze Age and Iron Age, which was later confirmed by the excavation of Pitt Rivers.

In India, there are a number of museums either at the State or at the National levels, and today the Department of Culture under the Ministry of Human Resources has given many of them the status of 'National Museum', prominent among them being National Museum at New Delhi and Indian Museum at Kolkata. Apart from the National Museums, there are some 'Site Museums' in our Country and the one at Nagarjunakonda is famous in this regard. Japanese Open Air Museum at its former capital in 'Nara' is one of the famous museums in Asia. There are many such museums in the Philippines, Malaysia and Vietnam.

## 3.9 RESEARCHES INTO THE HERITAGE CULTURAL RESOURCES AT MUSEUMS

Museum exhibits are the objects of cultural resources of human past. They are static in nature but are the suitable objects to speak the dynamic cultural evolution of mankind in the past. As mentioned earlier in the case of 'National Museum of Danish Antiquities', researches undertaken at a museum may reveal meaningful and suitable information on certain aspects of cultural history of humankind.

## 3.10 SUMMARY

Studies into the Cultural Resource vis-à-vis Cultural Heritage make people aware of their past and brings the knowledge regarding what kind of culture the people of a region had in the past. Therefore the Government of a Country on its own and also with the help of education-cum-research Institutes along with suitable learned agencies always works on preservation of the archaeological sites. Government of each and every country, including India, all over the world has different kinds of rules and regulations in this regard and also enact State Legislation for conservation of Cultural Resources of respective State.

## Suggested Reading

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## Sample Questions

1) How will you define Cultural Resource Management and its importance in Indian Archaeology?

2) Write short answers for the following

   i) What is Museum?