

Lecture 06: Archaeology

1. Etymology

The word comes from the Greek *archaia* (“ancient things”) and *logos* (“theory” or “science”).

2. Definition

also spelled archeology, is the scientific study of the material remains of past human life and activities. These include human artifacts from the very earliest stone tools to the man-made objects that are buried or thrown away in the present day: everything made by human beings—from simple tools to complex machines, from the earliest houses and temples and tombs to palaces, cathedrals, and pyramids. Archaeological investigations are a principal source of knowledge of prehistoric, ancient, and extinct culture.

3. Description

The archaeologist is first a descriptive worker: he has to describe, classify, and analyze the artifacts he studies. An adequate and objective taxonomy is the basis of all archaeology, and many good archaeologists spend their lives in this activity of description and classification. But the main aim of the archaeologist is to place the material remains in historical contexts, to supplement what may be known from written sources, and, thus, to increase understanding of the past. Ultimately, then, the archaeologist is a historian: his aim is the interpretive description of the past of man.

4. Excavation

Archaeological excavation is the procedure by which archaeologists define, retrieve, and record cultural and biological remains found in the ground. Past activities leave traces in the form of house foundations, graves, artifacts, bones, seeds, and numerous other traces indicative of human experience.

Excavations can be classified, from the point of view of their purpose, as planned, rescue, or accidental. Most important excavations are the result of a prepared plan—that is to say, their purpose is to locate buried evidence about an archaeological site. Many are project oriented: as, for example, when a scholar studying the life of the pre-Roman, Celtic-speaking Gauls of France may deliberately select a group of hill forts and excavate them, as Sir Mortimer Wheeler did in northwestern France in the years before the outbreak of World War II. But many excavations, are done not from choice but from necessity. Gravel digging, clearing the ground for airports, road widening and building, the construction of houses, factories, and public buildings frequently threaten the destruction of sites known to contain archaeological remains. Emergency excavations then have to be mounted to rescue

whatever knowledge of the past can be obtained before these remains are obliterated forever.

The role of chance in the discovery of archaeological sites and portable finds is considerable. Farmers have often unearthed archaeological finds while plowing their fields.

5. Interpretation

Excavation often seems to the general public the main and certainly the most glamorous aspect of archaeology; but fieldwork and excavation represent only a part of the archaeologist's work. The other part is the interpretation in cultural and historical contexts of the facts established—by chance, by fieldwork, and by digging—about the material remains of man's past. This task of interpretation has different aspects.

5-1 Classification and analysis

The first concern is the accurate and exact description of all the artifacts concerned. Classification and description are essential to all archaeological work, and the first requirement is a good and objective taxonomy. Second, there is a need for interpretive analysis of the material from which artifacts were made. This is something that the archaeologist himself is rarely equipped to do; he has to rely on colleagues specializing in geology, petrology (analysis of rocks), and metallurgy. In the early 1920s, H.H. Thomas of the Geological Survey of Great Britain was able to show that stones used in the construction of Stonehenge (a prehistoric construction on Salisbury Plain in southern England) had come from the Prescelly Mountains of north Pembrokeshire; and he established as a fact of prehistory that over 4,000 years ago these large stones had been transported 200 miles from west Wales to Salisbury Plain.

In the third place, the archaeologist, having dealt with the material of his artifacts by classification and taxonomy, and with its physical nature by petrology and metallurgy, turns to the remaining information he can get from his colleagues in the natural sciences. These tell him the environmental conditions in which the people he is studying lived; he now sees his material remains not as isolated artifacts but in the context of their original environments.

5-2 Dating

The greatest revolution in prehistoric archaeology occurred in 1948, when Willard F. Libby, at the University of Chicago, developed the process of radioactive carbon dating. In this method, the activity of radioactive carbon (carbon-14) present in bones, wood, or ash found in archaeological sites is measured.

Following the revolutionary discovery of radioactive carbon dating, other physical techniques of absolute dating were developed, among them potassium–argon dating and dating by thermoluminescence. Potassium–argon dating has made it possible to establish

that the earliest remains of man and his artifacts in East Africa go back at least 2,000,000 years, and probably further.

5-3 Historical judgments

The last and most important task of the archaeologist is to transmute his interpretation of the material remains he studies into historical judgments. When he is dealing with medieval and modern history he is often doing no more than adding to knowledge already available from documentary sources: but even so his contribution is often of great importance; for example, in relation to the growth and development of towns and the study of deserted medieval villages. When he is dealing with ancient history and prehistory, he is making a contribution of the greatest importance and often one that is more important than that of purely literary and epigraphical sources. For the prehistoric period, which now appears to stretch from 2,000,000 years ago to about 3000 BCE, archaeological evidence is the only source of knowledge about human activities. But prehistoric remains have always been the most difficult to interpret, precisely because there are no written records to aid in the task. Now, with exact dating techniques at his disposal, the prehistorian is becoming more like the historical archaeologist and is concerned with the periodization and the historical contexts of his finds.

6. Archaeological Sites

An archaeological site is any place where there are physical remains of past human activities. There are many types of archaeological sites. Prehistoric archaeological sites are those without a written record. They may include villages or cities, ancient cemeteries, campsites, and megalithic stone monuments. A site can be as small as a pile of chipped stone tools left by a prehistoric hunter. Or a site can be as large and complex as the prehistoric settlements of Chaco Canyon in the American southwest. Historical archaeology sites are those where archaeologists can use writing to aid their research. Those could include densely populated modern cities, or areas far below the surface of a river, or the sea. The wide variety of historical archaeological sites include shipwrecks, battlefields, slave quarters, cemeteries, mills, and factories.

6-1 Artifacts, Features, and Ecofacts

Even the smallest archaeological site may contain a wealth of important information. Artifacts are objects made, modified, or used by humans. Archaeologists analyze artifacts to learn about the people who made and used them. Non-portable artifacts called features are also important sources of information at archaeological sites. Features include things like soil stains that show where storage pits, structures, or fences once existed. Ecofacts are natural remains related to human activity. Plant and animal remains can help archaeologists understand diet and subsistence patterns.

6-2 Some Archaeological Sites in Algeria

Tassili n'Ajjer Wilaya of Tamanrasset and Illizi: This site is home to one of the most important groupings of prehistoric cave art in the world. More than 15,000 drawings and engravings record the climatic changes, animal migrations and evolution of human life on the edge of the Sahara from 6,000 B.C. to the first centuries of the present era.

Djemila Wilaya of Sétif: Situated 900 metres above sea-level, Djemila, or Cuicul, with its forum, temples, basilicas, triumphal arches and houses, is an interesting example of Roman town planning adapted to a mountain location.

M'Zab Valley Wilaya of Ghardaïa: A traditional human habitat created in the 10th century by the Ibadites around their five ksour (fortified cities), has been preserved intact in the M'Zab valley. Simple, functional and perfectly adapted to the environment, the architecture of M'Zab was designed for community living.

Al Qal'a of Beni Hammad, Wilaya of M'Sila, Commune of Maadid "Bechara": In a mountainous site of extraordinary beauty, the ruins of the first capital of the Hammadit emirs, founded in 1007 and demolished in 1152, provide an authentic picture of a fortified Muslim city. The mosque, whose prayer room has 13 aisles with eight bays, is one of the largest in Algeria.

Kasbah of Algiers: The Kasbah is a unique kind of medina or Islamic city. It stands in one of the finest coastal sites on the Mediterranean where a Carthaginian trading-post was established in the 4th century B.C. The Kasbah contains the remains of the citadel, old mosques and palaces as well as the vestiges of a traditional urban structure associated with a deep-rooted sense of community.

Homework:

why is archaeology important?