

Basic Concepts

Biblical archaeology, with its concentration on the Levant, deals with the study of the archaeology of the Hebrew Scriptures and the New Testament. Through biblical archaeology researchers gain a fuller perception of the events and the lifeways of the peoples described in the Bible. In biblical archaeology we reconstruct the lifeways of biblical peoples and learn of the cultural change, known as cultural process, in their civilizations.

Culture in the study of ancient peoples refers to their learned and transmitted behavior over time. A procedural definition of biblical archaeology emphasizes the systematic recovery of the surviving remains of ancient civilizations in the Bible lands.

In its quest to illuminate our understanding of biblical times, biblical archaeology, reflects the defining characteristics of both the humanities and the sciences. Its focus is the production of knowledge concerning biblical peoples and their lifeways from their earliest beginnings through the period of the New Testament. The epistemological question challenging biblical archaeologists is--what can we know and how can we know it?

At one time the Bible, supported by other ancient texts such as the works of Flavius Josephus, Herodotus, and Eusebius, provided the structure for interpretation of bible lands sites and artifacts. Today biblical archaeologists place less emphasis upon written texts and draw more heavily upon the sciences to do their work. Some biblical archaeologists consider themselves scientists and others do not.

As the discipline becomes increasingly secularized its task is less the search for truth and more a search for facts. The underlying ends of biblical archaeology, a specialty in archaeology, are the advancement of knowledge through reconstruction of the lifeways of biblical peoples and their explanation.

When the primary means by which biblical archaeologists achieve these ends is by the discovery of the material culture of biblical peoples, through science informed by history, biblical archaeology is part of the social sciences. The desired outcome is explanation.

When the primary means is by textual study, that is, by history informed by science, biblical archaeology is part of the humanities. The desired outcome is interpretation.

Another trend in archaeological thought is postmodernism. Biblical archaeologists following this approach draw upon the methods and principles of philosophical hermeneutics, to "read" the archaeological record, rather than those of science.

The archaeology of the New Testament refers to the excavation, preservation, and analysis of the material culture of biblical peoples during the New Testament period (ca. 4 BCE-CE 135). This, of course, entails the study of socio-cultural systems outside the Levant including Asia Minor, Greece, Rome, and even as far as Spain and Roman Britain.

The archaeology of the Hebrew Scriptures, that of the Old Testament in Christian terminology, refers to that of the Tanakh. Interestingly, some Israeli archaeologists narrowly construe biblical archaeology to be that of the Hebrew Scriptures. We, of course, disagree preferring a much broader focus.

Three-Age System

The basis of the three-age system, emphasizing archaeological periods, is the 1819 work of Danish archaeologist Christian J. Thomsen (1788–1865). He related the classification of artifacts to technology, that is, according to the materials in which made (stone, bronze, and iron), thereby defining the Stone Age, the Bronze Age, and the Iron Age. See table below for the Levantine Archaeological Periods based upon the three-age system.

Thomsen developed the three-age system as a means for the display of artifacts for the Museum of Northern Antiquities (now the National Museum of Denmark). Thomsen held that the three-age system had chronological significance where stone preceded bronze, and bronze preceded iron. The “Law of Association” arose from this presumption. The Law of Association is that objects placed in a grave as part of a burial generally consist of things in use at the time of interment.

Jens Jacob Asmussen Worsaae (1831–1835), a later associate of Thomsen succeeded him at the museum. Worsaae, now generally acknowledged as the first true professional archaeologist, field-tested the three-age system and verified the Law of Association. He found that in undisturbed graves that grave goods found together generally consisted of objects in use at the time of interment. Archaeologists quickly recognized the general application of the three-age system to archaeological work.

Sir John Lubbock (1834–1913) later further subdivided the Stone Age into Paleolithic and Neolithic periods. Late in the nineteenth century, the Mesolithic period became recognized. Further refinements have continued to the present day. In geological time, the Paleolithic Period belongs to the Pleistocene Epoch. The Mesolithic Period to the present day is of the Holocene Epoch.

Earth Layers

The Wheeler–Kenyon Method (earth layers analysis) of excavation emphasizes the vertical dimension through analysis of earth layers, or strata, and their contents. Vertical control comes from the use of the balks separating grid squares. Horizontal control comes from keeping the working surface of the square level for any given locus and proper three-dimensional recording.



Above the archaeological field at Lachish illustrating balks and grid squares. A BIBARCH™ Photo.



Three dimensional recording requires constant surveying. A BIBARCH™ Photo from the Tel Hazor Excavations in honor of Yigael Yadin.

The Wheeler–Kenyon method bears the name of the two archaeologists credited for developing it—Mortimer Wheeler and Kathleen Kenyon. The Albright–Wright Method (architectural approach) of excavation stresses the wide-scale exposure of complete architectural units.

The prevailing Levantine approach, with a focus on interpretation, not explanation, emphasizes a combination of the earth layers analysis and the architectural approach wherein excavations proceed through earth layers analysis including the exposure of complete architectural units (through grid squares and balks.

This approach supports both processual scientific) and postprocessual (postmodern) archaeological research although the latter prevails in contemporary Levantine sites. A criticism of the approach consists of the problem that exposure of complete units does not leave the opportunity for re-excavation with improved techniques by subsequent generations.

The Archaeological Record

The archaeological record, the domain of the science of archaeology, exists as a repository wherein the decaying material remains of ancient beings and civilizations lie. As archaeologists approach their work they encounter raw data from the archaeological record which serves as the source of their evidence.

With respect to the production of raw data, to how it becomes evidence, and to the existence of its inferential value, two technical issues regarding the archaeological record have particular importance. The first deals with data, fact,

and evidence as they relate to an acceptable standard of proof and the second with the nature of the archaeological record.

It's Nature

The archaeological record has its own reality and exists only in the here and now. The archaeological record exists alienated from its original meaning. How do archaeologists give meaning to it? What constitutes its essential relation to its originators? Scientific archaeology and hermeneutics do not approach these questions in the same way. In either case ideology conditions what one studies in the archaeological record, perceives as relevant evidence, and the meaning of that evidence.

In hermeneutics, e.g., contextual archaeology, the first proposition of exegesis consists of the acceptance of the archaeological record as a text. While nature remains neutral, the archaeological record has no neutrality as it results from the interaction of culture and natural processes. The archaeological record exists as one of context representing an interaction between nature and culture. The archaeological record offers no self-declaration of meaning. In hermeneutics archaeologists attempt to make clear where it came from and why. The exegete gives meaning to the archaeological record through hermeneutical interpretation.

Can the archaeological record exist as a text exists to be read? The answer depends upon who you ask. If by "text" one means the "context" of an artifact or other pertinent finds then there is text in a hermeneutical sense. This would not satisfy the scientific archaeologist. If text means a form of record then perhaps it can be "read" but this consists of no more than playing with words. The word "record" comes from the Latin *recordari* meaning "to call to mind." Among the postmodern meanings ascribed to the word "record" as a noun includes its evidentiary purpose "to serve as evidence of." Within its scope comes anything that serves as evidence of an event. Often "record" implies a text or writing. For hermeneutics, the archaeological record must be understood like any other text that requires understanding, and this kind of understanding requires acquisition.

A goal of archaeological endeavor consists of the recovery, classification, and description of the durable remnant of human activities of antiquity to expand the knowledge of the present about the past. Stuart Piggott suggested a moderate hermeneutic approach when he submitted that archaeologists seek to:

...discover the latent or hidden content of such things from the point of view of recovering or reconstructing the past from them (Piggott 1959:24.)

In hermeneutic terms the archaeological record projects a "world" which shapes the judgment of the researcher who enters it. The incomplete nature of the evidence available to the archaeologist may frustrate his or her work, but the reality of the archaeological record transcends the content of the consciousness of the researcher. Its structure, form, and composition determine what counts as

appropriate knowledge and action for the researcher. As Fuller said, one's mind can be so delighted with all the "evidence" and "coherency" its construction draws from the data at hand that anger is easily generated against different constructions (Fuller 1982:864).

Ian Hodder, in his contextual archaeology, advocated that the archaeological record be "read" as a text using hermeneutical analysis (Hodder 1986). Robert W. Preucel, who discussed this textual metaphor, concluded that Hodder:

...puts forth the idea that material culture can be read in ways analogous to the reading of literary texts. This "reading," however, is not direct since material culture is a "less logical, more ambiguous language" than speech. Consequently, the act of reading the past involves a continuous dialogue of moving between sense and referent. Stated another way, this reading involves the transfer of meaning from one context to another through an interpretative exercise in which each individual actor must decide upon appropriate signification. (Preucel 1991:23.)

The ideas advanced by Hodder appear to closely resemble the same moderate approach advocated by Piggott who held:

The view of the past which one can form is conditioned by the evidence from which this view is constructed, especially as meaningful arrangements of the phenomena observed can only be made within the framework of some sort of conceptual model which will permit their interpretation. The models used when dealing with archaeological evidence have to be largely technological, evolutionary and economic, because it is these aspects of history which are reflected in the material culture which forms the archaeologist's subject-matter, and in the absence of historical documents archaeological evidence on its own will necessarily tend to produce a materialist view of the past, simply owing to the nature of the evidence available within this particular discipline. (Piggott 1959:126.)

Matrix and Provenance

Matrix

Matrix consists of the mass of material or physical substance that surrounds a find (clay, gravel, mud, sand, or water). Water and soil constitute the matrix in most archaeological sites. The matrix at any archaeological site has resulted from any number of possibilities including the result of cultural, chemical, and physical activity. The formation of soil results from the interaction of organic matter, rock, climatic conditions, and time.

Different climatic conditions produce varying soil conditions through calcification, lateralization, and podzolization. Calcification refers to the build up of calcium and magnesium salt deposits in the soil. Lateralization refers to the process of producing laterite a red, porous deposit containing large amounts of aluminum and ferric hydroxides, formed by the decomposition of certain rocks subjected to leaching as a result of rainfall. Podzolization refers to the slow decomposition of organic matter over highly leached soil producing a type of relatively infertile soil

found typically in forest lands and consisting of a thin, ash-colored layer overlying a brown, acidic humus.

Provenience and Three-Dimensional Control

Field excavators must retain strong three-dimensional control to record the provenience of finds thereby facilitating their analysis. Provenience, of course, refers to the location of an object in situ. The three-dimensional method of recording fixes the location of artifacts and structures as they were found in the archaeological record. Objects are recorded in their horizontal and vertical position with reference to the site grid i.e., on an x, y, z axis. This permits three-dimensional mapping for analysis.

Law of Superposition

The geological layers of the earth lie stratified or superimposed one upon another like layers of a cake wherein the lower strata are earlier than upper strata. The Law of Superposition states that in any deposit with a known top and bottom the order of succession from bottom to top constitutes the order of deposition. This does not mean that the bottom layer has claims as the oldest, e.g., inverted layers exist in the archaeological record.

Stratigraphic Excavations in Tells and Settlements

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The prevailing Levantine approach emphasizes a combination of the earth layers analysis and the architectural approach wherein excavations proceed through earth layers analysis including the exposure of complete architectural units through grid squares and balks. This approach supports both processual and postprocessual archaeological research although the latter prevails in contemporary Levantine sites. A criticism of the approach consists of the problem that exposure of complete units does not leave the ability for re-excavation with improved techniques by subsequent generations.

Epigraphs

Artifacts known as epigraphs, e.g., inscriptions, seals, monuments, consist of written materials found in the archaeological record. Written materials discovered by archaeologists can illuminate (adding to knowledge) or confirm (provide concrete evidence) biblical events.

In Mesopotamia archaeologists discovered thousands of clay tablets. Egypt has yielded "tons" of written material. In Palestine little written material survives. For example, at the Hazor Excavations in Memory of Yigael Yadin scarabs found in Late Bronze Age strata incited considerable excitement as these rare artifacts provide helpful means for establishing the absolute chronology of the loci in which excavators found them.

Ancient languages, existing as non-alphabetic representations, required "decoding", e.g., the Rosetta Stone which proved to be the key to "unlock" the hieroglyphics of ancient Egypt.