

A Suggested Standardization of Nomenclature in Archaeological Methodology

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This paper is an attempt to standardize terminology of practical value for methodological use in archaeology. The proposed nomenclature is presented in Table 1. This nomenclature was successfully employed in site report presentation by the writer (1).

TABLE 1

	general	analytical	interpretative
artifact-free, specific	<i>attribute</i>	<i>mode</i>	<i>element</i>
artifact-bound, interrelated attributes	<i>class</i>	<i>type</i>	<i>trait</i>
integrative, attributes and/or classes	<i>collection</i>	<i>complex</i>	<i>pattern</i>

Analysis

To understand the distinctions made in defining these terms the difference between analysis and interpretation must be made clear. Analysis is the procedure whereby archaeological data are placed in a framework of time and space; it is the initial step in the studying of archaeological materials obtained in the field (2). Analysis, as here defined, may be considered to be distinct in its purposes and goals from cultural reconstruction, for which it provides the required temporal-spatial ordering. Analysis, then, can be seen as the manipulation of masses of archaeological data for the purpose of deriving temporal-spatial order. Such order must be accomplished by classification, the procedure by which manipulable units, essential for demonstrating similarities and differences through time and space, are formed (3).

The basic unit employed in archaeology is the *attribute*. An attribute is any quality or aspect of material manifestation that can be ordered or described. As Spaulding points out (4) an "attribute may be one of a continuous group, a measurement of length . . . or a discrete quality, as in the case of observing that an object is made of bone . . . It may be a physical or chemical property— . . . weight, shape, chemical composition, etc." Krieger's term *feature* (5) is equivalent to an attribute.

Attributes that are diagnostic temporal-spatial indicators are here termed modes. The concept of *mode* was introduced into the literature by Rouse (6), and is equivalent to Krieger's *character* (5). Rouse would limit mode to include only attributes with cultural significance, while I would exclude attributes with cultural significance that possessed no

time-space implication. "By the term 'mode' is meant any standard, concept, or custom which governs the behavior of the artisans of a community . . . Analytic classification, then, must single out modes, which are cultural, and exclude those traits [attributes] which are purely biological, chemical, or physical" (7). It is conceivable, though perhaps improbable, that an attribute may have temporal-spatial significance, but no cultural significance. For example, unknown to a community of potters, a microscopically imperceptible alteration might naturally occur in a clay deposit that is microscopically detectable to an archaeologist when incorporated into a pottery form. Such an alteration could quite likely be sensitive to change in time and space. An attribute caused by this clay alteration would have no cultural significance if imperceptible to the potters on a conscious and subconscious level.

Another unit used in archaeology, but seldom formally defined, is a *class*. A class is simply a group of artifacts sorted together as a unit by similarity of appearance. Class as used here differs from Osgood's meaning (3) which is restricted to a group of artifacts manufactured from a single material. Daugherty's term *form* (8) implies that shape or form is the only criteria used, and, therefore, is not employed here. A class that successfully serves as a diagnostic temporal-spatial indicator is a *type*. A type, like a *mode*, need not have cultural significance. This use of the type concept conforms with Steward's Historical-Index Type (9). In essence, a type is nothing more than a related set of recurring artifact-bound attributes. Spaulding (10) and Shepard (11) have implicitly extended the concept of type to include clusterings of attributes, statistically derived, independent of artifact classes. I believe that this does violence to the typological concept and such a term as attribute cluster would be more appropriate.

Archaeological *collections*, temporally-spatially ordered, are here termed *complexes*. Complexes are portions of phases that share some common mode, or partitive units of such interrelated segments. Braidwood's term *industry*, used in Old World archaeology (12) is similar in concept to complex. Distributions of specific modes and types can also be plotted on these ordinates.

Interpretation

Procedures of interpretation do not actually follow upon the previous objective of time-space framework formulation, but rather start at the same level as analysis, utilizing the additional data of analysis, but directing this data to a different goal. The goal of interpretation is to discover how an assemblage of artifacts was manufactured and used at a certain place and at a specific time, not the ordering of data temporally or spatially. The interpretative procedure must be performed after analysis has identified a temporal-spatial unit, so that an artifact inventory can be determined.

The bulk of direct evidence on cultural evolution has been derived from data interpreted from archaeological remains. Awareness of the value of interpretation is largely incipient, however. This lack of emphasis was pointed out by Steward and Seltzer (13), and was strongly indicted by Taylor (14).

Epistemological considerations of archaeological interpretation have been examined by Thompson (15). Archaeological interpretation is the result of the inferential process which proceeds in two steps, indication and testing. Indication is that activity of making indicated conclusions from observed indicative data. Testing is that activity of making inferences by analogy of indicated conclusions with probative data. The inferential process is operative on the analytic level, but is presented here since it is at the interpretative level that the final results of inference become manifest.

The most reliable probative data is association. From the relative position of two or more objects with one another, or with one or more objects with some significant natural features, valuable probative data can be obtained. For example, if red ocher is found adhering to the grinding surface of a palette, the inference that the palette served as a device for preparing red paint pigment seems plausible. Interpretation of this type corresponds to Taylor's Conjunctive Approach (14).

Less reliable is ethnographic data obtained in the same area as the archaeological materials. Best results of this type of data can be obtained if the archaeological material is not too early in time, and recent conquests and invasions have not occurred in the area. If these conditions are met it can be assumed that there is historical continuity between ethnographic practices and archaeological evidences. Interpretation in this situation has been termed the Direct Historical Approach by Steward (16).

Often local ethnographic data are unobtainable. Attention should then be given to finding ethnographic analogs from societies with similar subsistence levels and habitats. This type of comparison is called the "New Analogy" by Ascher (17). Of course if data of this nature are unavailable other ethnographic data must be relied upon.

If ethnographic data are unavailable or poor, Experimental Analogy (18) can be utilized. Valuable inferences on chipping techniques of paleolithic tools have been obtained in this manner, for example Semenov (19).

The smallest units of interpretative significance are here termed elements. Linton's concept of *item* (20) is comparable. Elements fall into two basic categories, manufacturing techniques and uses of objects. There are three types of manufacturing techniques, (1) selection of materials for manufacture, (2) manufacturing of objects by reduction, that is the removing of matter from an original piece of raw material, and (3) manufacturing of objects by construction, combining raw materials to build a qualitatively distinct form. The analytic counterpart of an element is an attribute.

Uses may be either dynamic, that is a moving action is required in its employment, or static. Also, uses may be utilitarian, that is required to maintain a livelihood, or non-utilitarian. A description of the manufacturing techniques and uses of an assemblage of artifacts is the *techniculture* (3) of a community.

A larger synthetic unit is the *trait*. A trait differs from an element in that a "unit of observation" is implied (21). In archaeology, due to the nature of the materials studied, a trait acquires a more formal

aspect. Traits are simply "functional types," classes of artifacts grouped together on the basis of suspected common use. Functional types seldom coincide with analytic types, defined on temporal-spatial bases.

The basic unit of reconstruction is here called a *pattern*. This concept is similar to Wissler's Universal Pattern (21) and Reed's Culture Category (22). Unlike complexes, patterns must occur at one time and place, that is within a phase as defined by Willey and Phillips (23). The analytic procedure of defining a phase in space and time must precede cultural reconstruction of interpretative data into patterns. A description of the patterns of a phase constitute, essentially, an "archaeological ethnography," or what Taylor would call "historiography." (14).

It is my belief that application of the terminology proposed in this paper will provide continuity and uniformity to presentation of archaeological data.

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