

Culture History: A Culture-Historical Approach

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The history of ideas is concerned with all that insidious thought, that whole interplay of representations that flow anonymously between men.

—Michel Foucault,
The Archaeology of Knowledge

CULTURE HISTORY CAN be variously conceived. Many have considered it the dominant twentieth-century paradigm prior to the New Archaeology of the 1960s—at least among Anglo-American trained archaeologists (Strong 1952; Trigger 1989:206; Lyman et al. 1997b:v, 1997a:1; Binford 1965, 1968; Caldwell 1959; Meltzer 1979; Dunnell 1978; Flannery 1967). Others, like Clarke, have seen it as a preparadigmatic “disconnected bundle of inadequate sub-theories” (D. Clarke 1968:xiii). It is often written about as though synonymous with the research histories or biographies of certain key figures, “culture history is what culture historians do,” or, as Lyman et al. (1997b:vi) note, as “the thinking of a group of archaeologists characterized by processual archaeologists as ‘culture historians’” (Daniel 1950; Fitting 1973; Willey and Sabloff 1974; Trigger 1989:414, bibliography).

Culture history has also been variously referred to as a period or stage in archaeological evolution (Willey and Sabloff 1980); as a movement (Trigger 1989:table 1), an approach (Trigger 1989), a perspective (Preucel and Hodder 1996:6), an interpretive trend (Trigger 1989:12), and as an intellectual adaptation to specific sociopolitical circumstances (Trigger 1989:148, 1978; Patterson 1986). Alternatively, its texts have been examined as literary tropes (Hodder 1989) and exploited for literary effects (Webster 1999).

Instead, I have chosen to conceive of culture history—as a culture historian should—as one among several archaeological traditions to which archaeologists contributed, mainly during the first half of the twentieth century. This view approaches archaeological texts of the period as artifacts—the material expression of the shared ideas or norms governing a particular kind of archaeological thought and practice

called culture-historical. And it distinguishes culture-historical from alternate contemporaneous types of texts (e.g., functional-processual, evolutionary) on the basis not of age or author or sociopolitical function, but rather on the basis of the formal characteristics displayed by their statements.

As with any classificatory approach, culture history has benefits and weaknesses (Mayr 1995). On the positive side it puts order to the unwieldy variation displayed by the massive culture-historical literature. In doing so it makes possible comparisons with other such traditions, as well as their accompanying discourse. A classificatory approach also seems especially suited to a phenomenon of such uncertain historical integrity. For it is important to realize that culture-historical archaeology—its tenets and principles—was largely defined in retrospect, and usually by its critics (Lyman et al. 1997b:vii). Archaeologists who actually practiced culture history were little aware of it, at least prior to the 1950s. They rarely referred to themselves as culture historians, nor saw what they were doing as particularly culture-historical, as opposed to other kinds of archaeologies. “Culture history” as a term and concept would have been better understood as it was used in eighteenth- and nineteenth-century German ethnology, to denote the product of research: a *Kulturgeschichte*, or culture history (Trigger 1989:148). Archaeologists seem not to have used the term themselves until the 1930s (Kidder 1932) and only rarely before the 1960s to differentiate a distinctive kind of approach (Taylor 1948; Willey and Phillips 1958). Rouse’s (1953) often cited programmatic essay “The Strategy of Culture History” is a review of “research planning with respect to the study of culture history,” and *not* a description of one particular paradigm compared to others. It is likely that most archaeologists of the period saw themselves simply as archaeologists doing archaeology—as studying the archaeological record, with the only real distinction being whether they were dealing with prehistoric or historic remains. In contrast to later periods there was less reflection, less self-awareness; the modern (or rather

postmodern) idea of alternate archaeologies (Hodder 1999) would have been foreign.

This has several implications. It raises first a question about the wisdom of undertaking any project which hopes to characterize in some concise and useful way a phenomenon which could in reality be no more than the label which history and historians have hung on nebulous congeries of poorly articulated concepts, ill-reported methods, and badly remembered personalities. At the same time it warns of the potential dangers of studying any such phenomena typologically. The greatest one is certainly the ramifications of confusing typological creations with empirical reality; assuming that people lived in a prehistoric past where the units archaeologists recognize and navigate by in the present are the same as those used by their prehistoric subjects. In the present chapter the risk is of lending historical reality to what may be largely a typological creation. It is easy to confuse the illusion of a consensus of opinions produced by typologically reducing variation with some real consensus originally present. There are risks to taking the subject of culture history as a distinct body, when the ideas could be an arbitrary chunk of the normative continuum between culture history, and contemporaneous traditions such as functional-processual or evolutionary traditions. Culture historians worry about just these problems (Lyman et al. 1997a).

In the remainder of this chapter, I will describe the diagnostic features of a culture-historical tradition as I have defined it.

NORMATIVE THEORY

Culture-historical texts are first distinguished by statements which reveal common notions about the nature of ancient cultures; about their qualities; about how they related to the material record; and thus about how archaeologists might effectively study them.

As Trigger (1978:100–101, 1989:161–163) has chronicled, by the turn of the twentieth century archaeologists were looking for new concepts to put order to increasingly numerous and diverse collections of remains. As classic evolutionism lost influence, archaeologists adopted concepts from ethnology and human geography (Daniel 1963:98). One was the belief that it is possible to group archaeological collections—assemblages, aggregates—that are comparable on some measure to form cultural units that are analogous to ethnological cultures (Trigger 1978:100). Several interrelated assumptions are involved.

Partitive Culture or Cultures

A central notion of culture history is that cultures constitute real or empirical divisions of the cultural whole, which E. B. Tylor (1871:1) defined as “that complex whole which includes knowledge, belief, art, morals, law, custom, and other capabilities and habits acquired by man as a member of society.” As Trigger states it (1978:76), “From this holistic or processual view of culture it was an easy step to a partitive one of individual cultures as ways of life transmitted by specific peoples from generation to generation.” The resulting *partitive* or *unit concept of culture* came originally from German ethnology and geography (Trigger 1989:162) and was used by the mid-eighteenth century to denote *customs of individual societies* and published as *culture history* (*Kulturgeschichte* and *Kulturwissenschaft*) (Kroeber and Kluckhohn 1952). By the late nineteenth century Friedrich Ratzel and Franz Boas promoted the idea of cultures as geographically discrete entities—culture areas or “blocks” with unique characteristics brought about by chance combinations of traits (Trigger 1989:148–163). Taylor summed up the concept (1948:110) as follows:

By culture as a partitive concept, I mean a historically derived system of culture traits which is a more or less separable and cohesive segment of the whole—that-is-culture and whose separate traits tend to be shared by all or by specially designated individuals of a group or society.

The unit-culture concept gained popularity in American ethnology in *culture area* and *age-area* concepts (Mason 1896; Wissler 1923:61–63; Kroeber 1931) which reinforced similar notions in archaeology (cf. Holmes 1914). The distinction between holistic culture and partitive culture became thus a central tenet of culture history (Kluckhohn 1960:139; Childe 1956a:26).

Normative Cultures

A second concept—perhaps originally from Durkheim (1895)—is the idea that cultures are bound together by common and distinct sets of norms, the *normative view of culture* (Willey and Phillips 1958:18). As Childe (1956a:17–18) described it, culture (in a partitive sense) denotes patterns of behavior common to a group, to all members of a society (“every society of men does impose on its members close conformity to more or less rigid standards or norms of behavior”) in traditional standards of behavior. Culture, then, is a mental construct consisting of ideas (Taylor 1948:101).

This also implies that cultures are to be studied as whole entities, since as natural packages they are normatively homogeneous (Willey and Phillips 1958:18; Binford 1965:204; Rouse 1953:84). C. Hawkes (1954:157) stated it as a central axiom: "The human activity which it [archaeology] can apprehend conforms to a series of norms, which can be aggregated under the name of cultures."

Fluid Cultures

Cultures in the partitive-normative sense were further understood to behave in a manner described metaphorically as fluid—the so-called aquatic view of culture (Binford 1965:204). Culture-historical texts abound in phrases like "cultural stream," "the flowing of new cultural elements into a region," and "vast flowing stream of ideational norms" (Ford 1949:38–39; Binford 1965:204). The idea was inherent in the original age-area concept in which culture traits were thought to disperse out from their point of origin—a culture center (Wissler 1923:203–205)—like "ripples" (Murdock 1948:294; quoted in Lyman et al. 1997a:19). Steward (1941:376) later said of archaeology, "the purpose is to represent the development, interaction, and blending of diverse cultural streams."

Particulate Cultures

Cultures are thought to be fluid but also vaguely *particulate*—composed of unique *traits*. The notion that traits dispersed from culture centers or diffused from one to another culture were well established in ethnology and human geography from the time of Ratzel and Boas. By mapping trait distributions one could establish a culture's boundaries as well as its history (Trigger 1989). A consensus on what a culture trait actually constituted was never established in either ethnology (e.g., a unit of observation of tribal culture [Wissler 1923:50]; ambiguous and partable [Kroeber 1940:29]) or archaeology (e.g., "unit of culture" [Taylor 1948:96]; "an artifact" [Ehrich 1950:471]).

Despite a need for consensus on this issue (Dunnell 1978), no agreement on unit of culture has entered common use in culture history for classifying cultural similarities and differences (Lyman et al. 1997a:161–162, 165, 183, 191). Evolutionary archaeologists argue that the best way to know what the true cultural units are is to monitor their replicative success over time (Dunnell 1978; Lipo et al. 1997; Lyman and O'Brien 1998). Others define the cultural unit as a statistical clustering of physical traits or artifacts (Cavalli-Sforza and Feldman 1981; Clarke 1968; Fry 1979).

Archaeological Cultures

Culture history typically views the archaeological record as not the culture itself, which is a fluid-normative phenomenon, but rather as its cultural product: the objectified or materially expressed norms of the culture or cultures that produced it (Ford 1954c:47). The resulting concept—the archaeological culture—is considered by some (Hodder 1991:3) to be the single most significant building block of European prehistory. Trigger (1989:165) traces its European origins to Kossinna (1911), who interpreted his mapped distributions of northern European artifacts as cultural mosaics (Kulturen or Kultur-Gruppe) comprising the remains of discrete peoples with diverse lifestyles and ethnicities. It was eventually adopted by Childe (1925, 1929, 1939), who systematized its use. In America the concept may have an independent origin in early work by Mills (1902) and others in the Ohio valley. It was eventually used by Kidder (1924) in the first culture-historical synthesis of southwestern archaeology (Trigger 1989:187–188; Meinander 1981).

CULTURAL TYPOLOGIES

A second distinguishing feature of culture-historical texts is a preoccupation with classification and typology. Normative cultural theory implies that archaeology properly carried out is a comparative study of the material expressions of normative culture units or archaeological cultures, each of which, according to C. Hawkes (1954:157), is "definable in terms of time and space and recognizable each by its standard [read: normal] range of material products." Thus a primary objective of culture history is to document the historical development of cultures in various areas, through a study of the relationships of form, temporal locus, and spatial locus exhibited by their representative artifacts (Lyman et al. 1997a:2; Kidder 1932:8; Willey 1953b:361).

Classifying Data

Culture historians have employed several systems for ordering their data—classification, typology, taxonomy. Rouse (1952:324–340, 1953:89–90) laid out the more or less standard classificatory procedure. First, artifacts are grouped according to material (ceramic, stone, wood, glass, etc.); then they are subdivided on the basis of techniques of manufacture, shape, decoration, function, and so on. The result is a hierarchical series of classes, subclasses, and so forth, each consisting of artifacts with similar physical properties, uses, and features. As empirical groupings, such classes are

deemed best for describing aggregates of artifacts or other material units having fixed provenience (e.g., sites, features, components), and they might be further used as a basis for drawing behavioral or even ethnological inferences (Smith 1910; Clark 1952; Taylor 1948:170–171; cf. Kroeber 1939b). From such classes one might then define *types* as “a series of attributes which are shared by such a group of artifacts and which distinguish them as a class”; while the series of diagnostic attributes (its *significata*) he termed a *mode* (Rouse 1952:325–330). Types being theoretical or analytical units (as opposed to classes) could be used “in defining units of culture for use in distribution studies or for some other interpretive purpose” (Rouse 1953:89).

Cultural or Normative Types

Types are needed on practical grounds for reducing the “bewildering variety of human behavior to manageable proportions for scientific treatment” (Childe 1956a:34; Piggott 1965:2; Rouse 1953:98). But how can they also serve to document normative culture units? Culture history addressed the problem by translating abstract notions of cultural norms to concrete notions of material norms as manifested in the observable variability within material traits—artifacts. Flannery described the arguments as follows (1967:119):

culture historians . . . treat culture as a body of shared ideas, values, and beliefs—the “norms” of a human group. Members of a given culture are committed to these norms in different degrees—the norm is really a bell-shaped curve of opinions on how to behave. Prehistoric artifacts are viewed as products of these shared ideas, and they too have a “range of variation” that takes the form of a bell-shaped curve.

C. Hawkes (1954:157) was similarly explicit (see also Childe 1956a:34; Krieger 1944:272):

In the standard range, however delicately the bounds of classification are adapted to the variability, the notion of types must be comported. And change, from one norm to another, is to be followed in the changing of the types, and of the standard ranges of the products whence the norms can be inferred.

Consequently culture history tends to focus on variation that is thought to reflect the diagnostic norms of a culture, rather than merely utility or function, in hopes of “abstracting from cultural products the normative concepts extant in the minds of men now dead” (Binford 1965:203; cf. Childe 1956a:11),

and thus revealing “the inherent order that exists in culture at all times and places” (Ford 1954c:52).

In practice this has often been a matter of trial and error. Certain types defined on the basis of style attributes may have “limited and coherent temporal and spatial distributions” (Krieger 1944:272, 277–278; cf. Whiteford 1947:228), thus making them more useful for discovering or analyzing culture-historical units (Ford 1938). The assumption that style might cross-cut functional variation and measure normative-cultural variation became well established (Kidder 1916:122; Kroeber 1916b:36, 1919:239; Nelson 1916:162; Spier 1917:277; Wissler 1916:195). As Lyman et al. (1997a:10) explain,

Because styles change independently of changes in selective environments, one can define classes [read: types] of styles—historical classes—that allow the measurement of time; further, because stylistic similarity results from transmission, styles can be used to measure interaction between spatially separate groups of people.

Thus culture history tends to focus on potentially homologous as opposed to analogous similarities (Lyman et al. 1997a:10) measurable by types which would “to a greater or lesser degree, be a reflection of the boundaries to one stream of ideas which the culture bearers considered related” (Ford 1954c:52). Types found to consistently fulfill this role have come to be alternately termed diagnostic, cultural, historical, index, marker, or key types, sometimes type fossils (Ford 1954c:52; Childe 1956a:111–134; Willey and Woodbury 1942:236).

Seriation

Culture history requires methods to establish the relative age of various classes of remains as a basis for defining and comparing culture units. Before the development of radiocarbon dating and the widespread use of dendrochronology, *frequency seriation*—the relative dating of assemblages on the basis of proportional representations of constituent culture-historical types—was the primary method (Heizer 1959:222–343, 376–488). It was not only precise but made use of the most common remains: pottery shards.

Less precise forms of seriation (cf. Rouse 1953:94) had long been used in the Old World—termed alternatively contextual, developmental, or phyletic seriation (Lyman et al. 1997:43–62). There were several necessary assumptions: (1) types change gradually over time as observed stratigraphically; (2) due to the diffusion

of norms, geographically similar types are more or less contemporary; (3) types tend to improve, evolve, or develop (rarely degrade) over time. On this logic C. J. Thomsen arranged European collections into successive Stone, Bronze, and Iron Ages; Montelius seriated bronze implements as a basis for his regional cultural sequences; and Petrie seriated Predynastic Egyptian pottery from cemeteries at Diospolis Parva (Trigger 1989:73–80, 155–161, 200–201). Such methods based on qualitative (presence/absence) comparisons and cross-dating, although rarely precise, continued in use, especially outside North America (Rouse 1953:94–95; Garrod and Bate 1937; cf. Piggott 1965:11).

Frequency seriation, by contrast, is quantitative, requires no developmental assumptions, and is based on the critical discovery that types (generally called styles) change in frequency over time in a more or less uniform manner—according to the so-called popularity principle (Lyman et al. 1997:43). Styles are thought to appear, gradually to reach a peak of popularity, then gradually to decline. When viewed diagrammatically the changing frequencies produce normal, unimodal, or lenticular patterns—so-called battleship curves. Assemblages collected in single-component sites or from the surface can be thus relatively dated from the relative percentages or frequencies of the constituent styles. Seriations were corroborated by stratigraphic excavations; and dendrochronology, used in both Europe and North America from the 1920s for dating structures, eventually offered *absolute date calibrations* for seriations (Baillie 1982; Douglass 1919, 1921).

Frequency seriation appears to have developed first in the southwestern United States, after Nelson at Pueblo San Cristobal (Nelson 1916) and Kidder at Pecos Pueblo (Kidder and Kidder 1917) recognized normal frequency distributions of pottery types across levels. But Kroeber first used the popularity principle for seriating shards collected from the surface of Zuni Pueblo, New Mexico (Kroeber 1916a,b). The procedure was continuously refined (Spier 1917; Robinson 1951; Brainherd 1951; Deetz and Dethlefsen 1965; Kendall 1969) and widely employed, for example, in the Viru valley, Peru (Ford 1949), the lower Mississippi valley (Ford 1936), the Arctic (Collins 1937), and the Middle East (Hole et al. 1969). More recently, some archaeologists are showing renewed interest in frequency seriation (Lipo et al. 1997).

Classifying and Synthesizing Aggregates

Culture-historical types have been widely used for classifying and correlating aggregates of remains to build

larger culture units. According to Rouse (1953) this is done by “classifying sites instead of artifacts, structures, or parts thereof” (when dealing with culturally homogeneous sites or components): “one groups the sites or occupational units into classes on the basis of the similarities and differences in their cultural material, notes the elements of culture which are shared by each class and uses these elements to define the type of culture represented by the class” (Rouse 1953:91).

In Europe, following Oscar Montelius and Gustaf Kossina (Trigger 1989:155–170), Childe used select diagnostic types or index types to define a culture as “certain types of remains—pots, implements, ornaments, burial rites, house forms—constantly recurring together” (1929:v–vi), and (later) “an assemblage of the same types that recur at several distinct sites” (1956a:14, 16). Although he felt the concordance of several types was required to define a culture (cf. Childe 1956b:126; Piggott 1965:7), it was rarely possible to find concordance among a greater number. Childe was, however, careful to distinguish between the *definition* of a culture on typological grounds and its *description* by delineating its constituent elements: “A culture . . . is not constituted by the few types used as diagnostic fossils but by the whole assemblage of types and traits associated” (1956b:121).

For determining the spatial extent of a culture, Childe (1956b:112) reasoned that because

a people always inhabits a definite territory, and its extension must be in some sense orderly, though not necessarily continuous . . . the distribution of an archaeological culture should define the habitat of its authors, and thus its distribution will most conveniently be revealed by the distribution of the diagnostic types used to distinguish it. Hence . . . [a type] should exhibit an intelligible pattern and cluster round one or more recognizable foci. Every other type, attributed on the strength of associations to the same culture, when mapped in its turn should exhibit the same general distribution pattern.

Rarely was it possible to identify archaeological cultures with known ethnic divisions such as Celtic or Iberic “with the aid of toponymy and written sources” (Childe 1956a:36). Usually a conventional name was affixed designating a diagnostic trait (e.g., Battle Ax, Bell Beaker, Tumuli) or with a geographic location, sometimes with period suffixed (e.g., Aunjetitz, Hallstatt, Thessalian Neolithic, British Iron Age, etc.). By aligning the resulting cultures chronologically by means of stratigraphy, seriation, and synchronism,

Childe constructed the first major cultural syntheses of several European regions (Childe 1925, 1929; see also Leakey 1931; Clarke 1968 for review of classifications in Europe).

A variety of systems were developed in North America, which were mainly modifications of two basic schemes (Lyman et al. 1997a:159–205). The Gladwin system was a hierarchical classification of culture units for the American Southwest (Gladwin and Gladwin 1934) based on the relative degree of trait similarities, including common pottery types. *Roots* subsumed the large regional groupings: Basketmaker, Anasazi, Hohokam, Caddoan. *Roots* comprised *stems* denoting specific regional culture units. These in turn were further subdivided into more geographically specific *branches* and *phases* (similar to Childe's cultures, above; see Rouse 1955). The resulting dendritic classification defining temporal, spatial, and formal similarities gave the appearance of a tree of historical relatedness of southwestern cultures (Lyman et al. 1997a:168), although it never demonstrated common ancestry and subsequent divergence (Willey and Sabloff 1980:105).

More influential outside the Southwest was the so-called Midwestern taxonomic or McKern system (McKern 1939) originally developed for classifying large amounts of materials from unstratified contexts. It too classified finds on formal criteria. As in Childe's procedures, *assemblages* from single occupation units—*components*—were grouped into *foci* (similar to Gladwin's phases and Childe's; see Rouse 1955) on the basis of shared types (styles); *foci* were in turn grouped into *aspects*; *aspects* into *phases* (not equivalent to Gladwin's); *phases* into *patterns* (McKern's phases and patterns were later dropped). Like European cultures, *foci* and *aspects* were arranged to form local and regional cultural chronologies (Trigger 1989:192).

Components of both classifications (often with modified nomenclature and meaning) were later synthesized (Phillips and Willey 1953; Willey and Phillips 1955) for integrating broader regions; Ford and Willey's (1941) synthesis of eastern North American prehistoric phases (cultures) used developmental stages—Archaic, Burial Mound I, Burial Mound II, Temple Mound I, Temple Mound II. The system correlated phases and *foci* on the basis of a persistence of traits—types, classes, assemblages—to form *traditions* (Rouse 1939:14; Willey 1945:53), and geographically on the basis of trait similarities to form *horizons* (Kroeber 1944:108–111; Rouse 1953:70).

Ethnological Interpretations of Culture Units

Inherent within the normative theory of culture is the original notion that archaeological cultures represent real ethnic or cultural units in the ethnological sense. Thus larger culture units were frequently interpreted in these terms. In Europe, Childe (1956a:36), following Kossina (1911) and others (Myres 1911; Peake 1922; Fox 1923) referred to the material remains of a people or peoples. "Now types are repeatedly associated together not only because they were current at the same time, but also because they were made and used by the same people." But he was rarely more specific, saying "the sociological counterpart of an archaeological culture can only be designated by the non-committal term people" (Childe 1956b:133); and he cautioned, "what sort of unit that society was—a tribe, a nation, a caste, a profession—can hardly be decided from purely archaeological data" (Childe 1956a:18).

Similar interpretations were sought in North America (Jennings 1947:192; Sears 1961). Holmes (1914:413; 1919:77) spoke of antiquities in terms of ethnic and tribal differences; Spier (1918:345; 1919:386) interpreted pottery styles in terms of groups, and Vaillant (1931, 1936, 1937) in terms of peoples and tribal entities. Speaking of components, McKern (1940:18) stated, "A complex of traits at a site may represent the customs and ways of . . . a local group representing a single variety, or band, of Indians." Gladwin's roots and stems were likened to groups of people, and branches to culture areas. Colton (1939:5) called culture units tribes, and Phillips and Willey (1953) referred to a "locality or site" as "community" and a "region" as a "tribe." Despite these frequent pronouncements, systematic efforts to correlate archaeological with ethnic or sociocultural units have never been central to the culture-historical tradition.

Problems and Debates

Culture historians had problems trying to isolate and define culture units as they had conceived them. Establishing the boundaries of such units by the concordant distributions of more than a few diagnostic traits was notoriously difficult (Childe 1956a; McKern 1934); ethnology had similar difficulties (Kroeber 1939a:1–2). Moreover, problems with blurring, mixing, overlapping, and blending of type distributions as well as the drifting or creeping of type modes worsened as sample coverage and size increased within regions or even stratified deposits, or when measured quantitatively (Ford in Phillips et al. 1951:223–224; Kroeber and Strong 1924:49–54; Colton and Hargrave

1937:2–3, 30; Rouse 1953:92; Lyman et al. 1997a:65, 68–69, 87). What today are better understood as typological and sampling effects were—prior to the 1960s—interpreted variously as behavioral—coming from trading or raiding (Childe 1956b:118), phyletic—from historical relationships (Haury 1937:212; Kidder 1915, 1917), and postdepositional—from mixing (Brew 1946:63); they were only rarely identified as typological (Ford 1954c).

Methodological responses also varied. In heavily studied areas like the lower Mississippi valley and the Southwest, subtypes and varieties were designed better to reflect the ceramic continuum (Wheat et al. 1958:35–36; Phillips et al. 1951:63). Approaches taken to control the problem of too much variation included using only a few diagnostic types (e.g., index fossils, key types, marker types) to define units (Childe 1956a:20, 1956b:112; Willey and Woodbury 1942:236) and favoring qualitative presence/absence criteria over quantitative statistics for unit discrimination (Childe 1956b:121; Kluckhohn 1960:139).

Rouse (1953:93–94) noted the difficulties archaeologists were having establishing culture areas from distribution data (Strong 1933; Shettrone 1941), since “culture areas are not so likely as natural areas to remain constant through time” (Rouse 1953:93), although there were apparent exceptions (Bennett 1948). Rouse suggested that alternatively one might refer one’s data: (1) “to the (cultural) center (Wissler 1923:61–63) which it most closely resembles . . . [for example] where several tribes with different cultures live side by side and it is therefore impossible to define a single, culturally homogeneous area”; (2) to arbitrary geographic divisions such as cartographic areas (Rouse 1953:94) like the map quadrangles used by Gladwin and Gladwin (1934); or (3) to natural areas (Rouse 1953:93) as is still done today to form archaeological regions—geographically bounded areas with some cultural homogeneity (Fagan 1991:47). All these responses had the effect of masking variation and reifying the unit culture concept.

Prior to the 1960s, such concerns were frequently aired in debates over the meaning of types (Kluckhohn 1939; Rouse 1939; Krieger 1944; Brew 1946; Taylor 1948; Ehrich 1950; Brainerd 1951b). These reached a climax in the famous Ford–Spaulding debate (Ford 1954a,b,c; Spaulding 1953a,b; 1954a,b; see Lyman et al. 1997a:149–157 for a detailed summary and interpretation). Spaulding—probably representing the majority (Brainerd 1951b; Gifford 1960; C. Hawkes 1954:157; cf. Childe 1956a:18) view—held that types

were empirically real: they potentially corresponded to the emic types of their makers, which were expressed materially as discontinuous clusters of attributes. He suggested they might be discovered using statistics—cluster analysis—and compared qualitatively (Spaulding 1953a,b). Ford—representing the minority view (Brew 1946:46)—held that all types—whether constructed by the archaeologist, the ethnologist, or the ancient artisan—were classificatory devices used to break up the cultural continuum. Although types did exist as “a reflection of the boundaries of one stream of ideas which the cultural bearers considered related,” so constructed, they provided little help in measuring culture history (Ford 1954c:45, 52).

In a brilliant study of space/time variation in housing on the fictitious island of Gamma, Ford (1954c) illustrated what some ethnologists (Milke 1949) had begun to suspect already: that types varied not only over time (by the popularity principle) but also relative to the level of abstraction chosen for the definition, and also socio-centrally—as “a function of the locality at which it is defined.” Ford showed how types looked real or natural” when the spatial sample was small, but began to overlap or blur, and the mean or norm of the type to drift as sample coverage increased. His conclusion: Given the multidimensional, conceptual nature of cultural types, archaeologists should employ theirs to cut the cultural stream into arbitrary pieces as a methodological expedient for measuring space/time variation in selected attributes or traits—as was done in seriation (Ford 1954c).

In retrospect these debates seem at cross-purposes: Spaulding’s approach wanted to group traits into natural classes, then compare them qualitatively—classification. Ford’s wanted rather to make types to measure cultural variation over space and time. Cowgill (1963:697) has suggested the approaches are not incompatible, and Childe seems to have used both to distinguish a culture’s defining characteristics (by concordant select types or typology), from the same culture’s description (an enumeration of its contents as a class of phenomenon by classification) (cf. Childe 1956a:118–120).

Field Methods

Although methodology is treated elsewhere in this volume, note that some field methods employed by early culture historians tended to confuse or obscure rather than clarify issues of interpretation. Using natural strata as analytical units produced the appearance of abrupt transformations which were often

interpreted as real cultural discontinuity (Lyman et al. 1997a). Similarly, the restricted lateral excavation samples deemed sufficient for classifying sites by cultural affiliation (Trigger 1989:204) reinforced notions of cultural homogeneity (Willey and Phillips 1958:18). But, as Trigger (1989:199) points out, modern forms of three-dimensional excavation and recording within lateral exposures were widespread by the 1930s under the advocacy of Sir Mortimer Wheeler (1954).

HISTORICAL EXPLANATIONS

Explaining cultural variability as revealed through classification and typology has never been a primary objective within the culture-historical tradition (Childe 1956b:112; Hawkes 1968:236). So culture history is often characterized as descriptive (Fagan 1991:41). Still, culture-historical texts do frequently include generalizing statements which attempt to explain (Rouse 1953:99), to explicate (Binford 1962:218) or—more accurately—to interpret variability in the material record in terms of the historical processes or mechanisms which created them (J. Hawkes 1968:236; Spaulding 1968:34; Rouse 1953:98; Sabloff and Willey 1967:313). What culture historians mean by historical has been much debated (Taylor 1948; Spaulding 1968; Binford 1968; Morris 2000). As stated by J. Hawkes (1968:236), “the reconstruction of individual events in time” is the final historical purpose of archaeology; and this seems to be the common understanding (Sabloff and Willey 1967:269; Spaulding 1968:36; Buettner-Janusch 1957; Binford 1962:217; Morris 2000:4–6, 109, 310). Toward this end, culture history can be said to support historic objectives.

Historic Objectives

In his programmatic 1953 paper, Rouse listed ten categories of processes as historic objectives, these being “possible explanations for the facts of culture history” (1953:98). Of these, six fall squarely within the culture-historical tradition as I have defined it: diffusion and persistence; independent invention; migration and other mechanisms of spread; participation in culture; acculturation; and parallel development. The remainder—evolution, phylogeny, ecological adaptation, other processes—seem better placed within parallel archaeological traditions of functionalism, processualism, and evolutionism. In any case, these culture-historical processes can be seen as derivatives of a central concept: diffusion.

Diffusion in its variant forms has been the principle explanation for the widespread (geographically) or

continuous (temporally) distribution of culture traits (artifact types, assemblages, etc.): “that the unit has diffused from one point in its distribution to the others—usually from the point where it occurs earliest or in greatest complexity” (Rouse 1953:98; Hawkes 1954:165; Childe 1950:9–10). It thus follows the age-area assumption (Wissler 1923:203–205 and above). Geographical diffusion might be primary, involving “actual folk migrations of peoples, or human groups” (Hawkes 1954:165), or even invasions (Sabloff and Willey 1967) if, for example, the “diffused unit is complex, as in the case of a *Kulturkreis*” (Rouse 1953:99; Schmidt 1939). Or it might be secondary, involving acculturation or transculturation (Rouse 1953:99; Ortiz 1947:97–103) and amounting to “influences transmitted from one group or people to another without actual group migration” (Hawkes 1954:165). Literally, “the peoples involved have borrowed the idea from one another” (Rouse 1953:99; Linton 1936:324–346) as might occur through trade or other intercultural contacts. Willey (1953a:379) saw such evidence as “a blend of the intrusive elements with the old local forms.”

Diffusion has been used both to explain and to align area sequences when their dissynchrony was thought to be due to the inherent time lag in the spatial movement of traits (Ford 1952). Evidence for geographical discontinuity on the other hand might be explained in terms of barriers to acculturation and diffusion that were natural (e.g., rivers, mountain) or cultural—linguistic, developmental, habitual (Linton 1940; Binford 1965:204). Migration and diffusion are deeply rooted concepts in culture-historical thought (Trigger 1989:150–160, 420–421).

Similarly, the evidence of a continuous/discontinuous distribution of a culture unit through time has been explained in terms of intergenerational diffusion or *enculturation*. First, temporal continuity as observed in the persistence of a trait over time may be assumed—other things being equal—to be the natural rate of cultural change (given the aquatic view of culture, as a “slow shifting of norms,” Ford 1949:38–39). Discontinuity, on the other hand, has often been assumed to be the exception (but see Spaulding in Willey and Phillips 1958:15–16); and hence requiring explication by invoking the processes of, for example, diffusion/migration, trade, or even invasions, if there were abrupt differences in superimposed traits (Childe 1956a:19; Caldwell 1958:1; Ritchie 1937; Willey 1953a:370, 374).

When frequency data (as from seriation analysis) has revealed the expected normal distributions, such

trait persistence might be further characterized in terms of the rising and falling of its popularity relative to alternatives—the popularity principle described above (Philips et al. 1951:219–223), sometimes called drift (Ford 1954c:51), participation in culture (Rouse 1954:99), or change in fashions (Childe 1956a:19). Aberrant or atypical traits might represent either normal or deviant behavior on the part of the makers, or intrusions from outside contact (Rouse 1941:14–15, 1954:99; Linton 1936). Only rarely have original innovation or independent invention been invoked to explain change, for example, when a new trait caused temporal discontinuity in a sequence (Spaulding 1953a). Some have believed these events were limited to the rarer so-called innovating societies (Piggott 1965:18–19); others have wondered whether they ever took place at all (Rouse 1953:99; Lowie 1937:158).

Especially in North America, diffusionary explanations have been posed in terms of cultural traditions reducing, elaborating, diverging, converging, or persisting as direct, on the basis of temporal variations in the similarity or dissimilarity of traits (Thompson 1956; Rouse 1953:100; Sapir 1916:43; Childe 1956a:19). Spatial continuity/discontinuity might be explained in terms of the extent of a cultural horizon (see above and Lyman et al. 1997a:185–202).

If as Spaulding (1968:35, quoting Brodbeck 1962:254) pointed out, “There are no such thing as historical explanations only the explanation of historical events,” what can be said about the interpretive statements made by culture history? Spaulding (Lyman et al. 1997a; Kluckhohn 1939; Binford 1968:267) contrasted culture-historical statements with scientific explanations as typically relying on implicitly stated generalizations about human dispositions which were—whether coming from ethnology or history—based on common sense and not theoretically justified (e.g., stylistic influences, popularity, receptivity to new traits, conservativeness/innovativeness, etc). In consequence, culture-historical explanations have been termed idealist, ideational, or ideographic as well as particularizing—sometimes with reference to Collingwood’s methods (Trigger 1989:373; Collingwood 1939:132; Renfrew and Bahn 1991:416; J. Hawkes 1968:236).

Induction and Validation

In the preface to his 1951 edition of *Man Makes Himself*, Gordon Childe stated, “Almost every statement in prehistory should be qualified by the phrase: ‘On the evidence available today the balance of probability

favors the view that.’” Culture-historical methodology has tended to be inductive in its procedures for gaining knowledge (Hawkes 1954:157). Frankfort (1951:21) called it “a viewpoint whence many seemingly unrelated facts are seen to acquire meaning and cohesion [and] likely to represent an historical reality.” For Childe (1956b:112) it was a matter of “the induction of the pattern that integrates the bits” (or data) from classifications. Kidder (1917:369) saw theories “forming themselves from data.”

Still, it would be wrong to characterize culture history as lacking any theory or objective performance standards (Carr 1967:3–35), as some have suggested (Lyman et al. 1997a:3; Thompson 1956:335). It is clear that culture-historical generalities were derived from a common set of assumptions about a normative basis of culture (above). Although these have rarely taken the form of explicitly stated deductions as nomothetical-deductive methodology requires (Hempel 1966), these explanations have constituted hypotheses of sorts (Rouse 1953:100). As such, they have been submitted to continuous evaluation as part of the normal course of research. For example, expectations about the distributions of culture units in the space/time continuum have changed in light of new data; while interpretations of these patterns have gained or lost favor. Migration (or primary diffusion) gave way to diffusion (or secondary diffusion) as a preferred account toward the middle of the twentieth century (Trigger 1978:29; Rouse 1953). Piggott (1965:10) referred to this kind of evaluation of archaeological facts as “cumulative credibility” (Childe 1956a:35).

ASSESSMENTS

Following the publication of Walter Taylor’s *Study of Archaeology* in 1948, culture history came under increasing criticism for what were perceived as inherent limitations to the normative-inductive approach for explaining cultural variability (Binford 1962, 1965). The result was the now well-documented fall of culture-historical archaeology to the so-called New Archaeology during the 1960s (Trigger 1989:244–328; Willey and Sabloff 1980; Binford 1965).

More recently Lyman et al. (1997a,b) have argued that early innovations in culture-historical archaeology—frequency seriation and a materialist conception of cultural variability (the particulate-aquatic view of culture)—promised the development of a truly scientific theory of archaeology. That this was never realized they have attributed to culture history’s “wrong view of reality” (Lyman et al. 1997a:2) manifest in a

basic paradox first detected by Brew (1946). As Lyman et al. (1997a:93) see it,

on the one hand, human history was a stream of attributes, ever changing, flowing from past to future; on the other hand, experience suggested that humanity was divisible into more or less discrete groups or cultures and it was these groups that required explanation.

The critical result, according to Lyman et al. (1997a,b), was the conflation of two metaphysics—essentialist/typological and materialist/population thinking which led culture history to futile attempts to study typological units such as types, cultures, phases, traditions, and so on, as though they were real, rather than artificial chunks of the space/time continuum.

At the same time, culture history's contributions to archaeology have been widely recognized. Most agree it filled an essential stage in the evolution of the discipline by laying the necessary classificatory foundation (Phillips and Willey 1953:214–231; Willey and Sabloff 1974); in doing so it was “a logical prelude to the systematic study of prehistoric cultures from functional and processual perspectives” (Trigger 1989:288; see also Binford 1962:217).

CULTURE HISTORY TODAY

Although no longer commanding a central position in theoretical discourse, culture history continues to assert a profound influence on archaeological thought and practice. The established utility of its concepts and practices can be seen in several areas of research.

First, as Trigger has documented, culture history remains viable in regions where historical conditions support an interest in understanding the prehistory and identity of specific peoples or ethnic groups (Trigger 1989:205, 174–186; cf. Hodder 1991), as for example on the west Mediterranean islands (Webster 1996a:15–19). Trigger (1989:205) concludes:

Ethnic and national groups continue to desire to learn more about their prehistory and such knowledge can play a significant role in the development of group pride and solidarity and help to promote economic and social development. . . . While the findings of cultural-historical archaeology can be enriched by techniques of reconstructing prehistoric cultures and explaining cultural change that have developed outside the framework of this kind of archaeology, only an approach that is focused on understanding the prehistory of specific peoples can fulfill the needs of nations in a post-colonial phase.

The culture-historical tradition also remains influential within archaeologies less influenced by anthropology. This applies to much of European prehistoric research today within the so-called Germanic School, where the emphasis is on the study of artifacts—mainly pottery and metal—toward the primary aim of constructing and refining regional cultural sequences (Champion et al. 1984:2). This is particularly true, for example, within the west Mediterranean (Webster 1996a:15–25).

Although developing its own distinctive archaeological tradition, classical archaeology—at least as it is traditionally practiced—remains strongly culture-historical to the degree that it focuses on artifacts as the normative expressions of culture units (see Gill, chapter 5). As William Biers in his widely influential text *The Archaeology of Greece* (1987:13) states, “Archaeologists work primarily with the objects or artifacts they recover, seeking to fit them into the cultural and historical framework of the area. Cultures differ, as does the evidence available to archaeologists in reconstructing them.”

Classical archaeologists have tended also to address questions of material variability in culture-historical terms. The classic debate over interpretations of Barbarian Ware within Iron Age Greek contexts as evidence alternatively for foreign—Dorian—invasions, migrations, or cultural diffusions is a prime example (Morris 2000:198–201).

Much of archaeology as it is practiced today operates within a culture-historical framework. A perusal of major syntheses of European and American prehistories reveals the continued usefulness of organizing concepts like archaeological culture, culture area, phase, tradition, and horizon (Fagan 1991; Jennings 1987; Champion et al. 1984). Our confidence in identifying materials from excavations and surveys as representing known types, as well as the subsequent assignment of these types into known culture units (e.g., Anasazi, Hopewell, Woodland in North America; Beaker, Polada, Chassen, Hallstatt, Nuragic in Europe), rests on a deeper culture-historical assumption that formal stylistic variability follows normative principles—the essentialist metaphysic. As such, culture-historical procedures continue to serve the interests of low-level theory (Trigger 1989:21).

Normative culture unit assumptions also underpin much of middle-level theory, particularly the archaeological interpretation of patterns of exchange and interaction (e.g., Harrison's study of the Bell Beaker Folk [Harrison 1980], Braun's study of the Hopewell

Culture interaction sphere [Braun 1986:117–126], Hedeager's study of exchange between imperial Rome and free Germany [1978:191–216], and our own study of native-colonial interactions in Late Nuragic Sardinia [Webster and Teglund 1992]. In the absence of analytically based source analyses (e.g., trace element analysis, isotopic analysis) such studies have relied on typological analyses for determining the distribution and movement of goods, and for identifying them as indigenous or foreign. The underlying assumption—usually implicit—comes from culture history: that there are culturally specific, and archaeologically identifiable, ranges of formal stylistic variation (Renfrew and Bahn 1991:307–337).

Recently Preucel, and Hodder (1996:6–7) have recognized culture history's general usefulness

as describing a facet of any archaeological research in a region, as sites and artifacts are categorized into cultural units which can be compared and dated. The description of the development, diffusion and movement of cultural traits establishes a space-time systematic which forms an essential building block for research in a new region.

There are interpretive advantages to conducting field-based research—regardless of its ultimate theoretical aims—within a culture-historical framework, as our own work at the Nuragic culture settlement of Duos Nuraghes can attest. Interpreting finds within a nested series of partly inherited/partly newly constructed culture units (architectural feature, settlement, local culture, regional culture, insular culture) has allowed reconstructions having social and historical relevance. At the same time, it has forced us to confront the classificatory nature of such units when studying them in relation to newly introduced (colonial) cultures, which in turn has led us to reconsider questions of cultural origins, transitions, influences, and extinction (Webster 1996b; Webster and Webster 1998b,c).

CULTURE HISTORY TOMORROW

But is there a future for culture-historical archaeology within so-called post-processual archaeologies? Before giving an opinion, I want to consider the implications of the question implied by culture history's critics: Why in the face of disparaging evidence did culture history remain popular for so long?

The easy response is simply that it took fifty or so years of feedback from field data for culture historians to realize the futility of a normative-typological-historical approach, and so to move on to more realistic

alternatives, as, for example, Lyman et al. (1997a) have implied. But it seems there were plenty of early clues. The chronic problems with methodology (see above and Lyman et al. 1997a,b) included difficulties in establishing multiple-concordant trait distributions and determining culture areas and in interpreting typological effects like transitional, overlapping, and intermediate types and typological creep. The result: much debate among archaeologists over types, and their space/time distributions, less over the cultural meanings of these units.

Moreover, the ethnological correlates of the emergent units were rarely well defined or well supported by archaeological evidence; and ethnologists themselves were rethinking unit culture concepts (Milke 1949; Kroeber 1939a:1–2; Quimby 1954). At the same time, early functionalists were showing the benefits of alternate approaches for reconstructing ancient life-ways, such as functional typologies and ethnographic analogy (Smith 1910; Childe 1931; Clark 1939).

In light of the evidence, culture history's response might have been other than more and better cultural typologies (Lyman et al. 1997a). Its basic assumptions might have been more seriously questioned: *Do cultures actually exist as real, empirical units to be discovered?* More might have concluded, as apparently Ford (1954c) and Brew (1946) had, that types—whether of artifacts, cultures, phases, or traditions; whether defined by the archaeologists or by the ancient artisans—were just that, *classificatory constructs, conceptualizations of reality* viewed from different positions across one common ground—the continuously varying material record. In sum, they might have concluded that the essentialist/materialist paradox was unsolvable, and abandoned their attempts to do so. Many did of course. But many didn't. Why?

I suggest that it is not the substantive reality of human populations or of their material records per se that ultimately interests culture historians. It is culture—the classificatory, normative, sociocentric, ideographic, often irrational attempts to make sense out of disturbing variation—that set humans apart (Wylie 1985:90; Webster 1996b). As Lyman et al. (1997a:5) note, "The essentialist metaphysic is manifest in human thinking." And so is the persistent interest. This is why perhaps more culture historians were convinced by Spaulding's essentialist argument, which promised to get them closer to the ideas behind the artifacts, the culture, than Ford's materialist one that promised them only more variation, and the implication that the whole concept of culture was an illusion.

What culture historians wanted to do (and many still do) is difficult, perhaps impossible: to link up the etic with the emic; to match the researcher's constructs with those of the subject (Hodder 1999:72–78). This involves inferences about ideology, which Hawkes (1954:162) put at the top of his hierarchy of inference, saying “the more specifically human are men's activities, the harder they are to infer.” More recently it has been recognized as doubly difficult—the problem of a double hermeneutic in which “archaeologists have to translate between their frame of meaning and that of the people being studied” (Preucel and Hodder 1996:13).

Neither processualism nor neo-evolutionism has yet solved this issue. Both have taken easier courses: the study of systems or artifacts. Middle-range theory has had modest successes in linking artifacts and normative-ideographic culture (Hodder 1982). But the problem is being embraced most fully within recent so-called interpretive and reflective archaeologies (see Hodder's chapter in the *Methods* volume). These more theoretically inclusive programs integrate contemporary historiography and social theory (Bourdieu 1977; Giddens 1979) within a hermeneutic epistemology (Hodder 1999; see Gardner, chapter 7). There is emphasis on the significance of historical specificities and how these are perceived by purposive human agents in creating archaeological patterning (Hodder 1992)—an approach anticipated by Childe (1949, 1956c). Constructing chronologies has again become important, as have inductive methods for attaining a full or deep description of the circumstances of continuity and change (Preucel and Hodder 1996:10; Hodder 1999; Morris 2000; Webster, in press). Most important: culture—its normative dimension—is again being foregrounded as a central and legitimate focus of analysis—a *cultural archaeology* (Morris 2000:18–24).

This reengagement with the culture history tradition can best be seen in recent text-aided archaeological practice. The prime example is Ian Morris's cultural history of Dark Age Greece. The program combines ideas of the Annaliste school of historians, like Braudel's proposal “to dissect history into various planes . . . to divide historical time into geographical time, social time, and individual time” (Braudel 1972:21, quoted in Morris 2000:4) with the idealism of the “new cultural history” (cf. Chartier 1988) which rejects material causality as primary and “focuses on how people represent their worlds, the social categories they create, and the conflicts these generate” (Morris 2000:9).

Operating within a culture unit framework of regional material cultures, Morris wishes to redirect Greek archaeology toward a “culture history of society,” or—following Samuel (1992)—from “fact-grubbing toward mind-reading” (2000:13), thus retrieving the normative view of archaeological culture so criticized by earlier processualists (Binford 1965; Flannery 1967). Morris interprets evidence from Lefkandi toward an “event-oriented narrative” of normative changes during the Dark Ages—a method reminiscent of some earlier culture-historical writings, like Gordon Childe's *Man Makes Himself*. At the same time, he challenges traditional culture-historical approaches to classic problems like the Dorian invasion, which he acknowledges “rest on essentialist models of ethnicity, which break down when we confront the complexity of the evidence and the discursive, subjective construction of identities” (Morris 2000:207). But rather than abandoning the issue as did processualists, Morris opts for viewing evidence of variation in the material record in terms of “a series of decisions which changed material culture”; then further interrogating these in terms of normative change, which in eleventh-century Greece he feels amounted to no less than “symbolic chaos verging on anarchy” (2000:201; see also Webster 2001b). Given more studies of this kind, we might justifiably speak of a new culture history project.

REFERENCES

- Baillie, M. G. L. 1982. *Tree-ring dating and archaeology*. London: Croon Helm.
- Bennett, Wendell. 1948. The Peruvian co-tradition. In *A reappraisal of Peruvian archaeology assembled by Wendell C. Bennett*, 1–7. Memoirs 4. Menasha, WI: Society for American Archaeology.
- Biers, William R. 1987. *The archaeology of Greece: An introduction*. Rev. ed. Ithaca, NY: Cornell University Press.
- Binford, Lewis R. 1962. Archaeology as anthropology. *American Antiquity* 28: 217–225.
- . 1965. Archaeological systematics and the study of culture process. *American Antiquity* 31: 203–210.
- . 1968. Some comments on historical versus processual archaeology. *Southwestern Journal of Anthropology* 24: 267–275.
- Bourdieu, Pierre. 1977. *Outline of a theory of practice*. Cambridge: Cambridge University Press.
- Brainherd, George W. 1951a. The place of chronological ordering in archaeological analysis. *American Antiquity* 16: 301–313.
- . 1951b. The use of mathematical formulations in archaeological analysis. In James B. Griffin, ed., *Essays on archaeological methods: Proceedings of a conference held*

- under the auspices of the Viking Fund, 117–127. *Anthropological Papers* 8. Ann Arbor: University of Michigan Press/University of Michigan Museum of Anthropology.
- Braudel, Fernand. 1972. *The Mediterranean and the Mediterranean world in the age of Philip II*. London: Collins. Originally published as *La Méditerranée et le monde méditerranéen à l'époque de Philippe II*. Paris: Colin, 1949.
- Braun, David. 1986. Midwestern Hopewellian exchange and superlocal interaction. In Colin Renfrew and John Cherry, eds., *Peer polity interaction and sociopolitical change*, 117–126. Cambridge: Cambridge University Press.
- Brew, J. Otis. 1946. *Archaeology of Alkali Ridge, Southeastern Utah*. Papers 21. Cambridge, MA: Peabody Museum of American Archaeology and Ethnology.
- Brodbeck, M. 1962. Explanation, prediction, and “imperfect” knowledge. In Herbert Feigl and Grover Maxwell, eds., *Scientific explanation: Space and time*, 231–272. *Minnesota Studies in the Philosophy of Science* 3. Minneapolis: University of Minnesota Press.
- Buettner-Janusch, J. 1957. Boas and Mason: Particularism versus generalization. *American Anthropologist* 59(2): 318–324.
- Caldwell, Joseph R. 1958. *Trend and tradition in the prehistory of the eastern United States*. Memoirs 88. Menasha, WI: American Anthropological Association.
- . 1959. The new American archaeology. *Science* 129: 303–307.
- Carr, E. H. 1967. *What is history?* New York: Vantage.
- Cavalli-Sforza, L. Luca, and Marcus W. Feldman. 1981. *Cultural transmission and evolution*. Princeton, NJ: Princeton University Press.
- Chartier, Roger. 1988. *Cultural history: Between practices and representations*. Ithaca, NY: Cornell University Press.
- Childe, V. Gordon. 1925. *The dawn of European civilization*. London: Kegan Paul.
- . 1929. *The Danube in prehistory*. Oxford: Oxford University Press.
- . 1931. *Skara Brae: A Pictish village in Orkney*. London: Kegan Paul.
- . 1939. *The dawn of European civilization*. 3rd ed. London: Kegan Paul.
- . 1949. *Social worlds of knowledge*. Oxford: Oxford University Press.
- . 1950. Cave men's buildings. *Antiquity* 24: 4–11.
- . 1951. *Man makes himself*. New York: Mentor.
- . 1956a. *Piecing together the past: The interpretation of archaeological data*. London: Routledge & Kegan Paul.
- . 1956b. *A short introduction to archaeology*. New York: Collier.
- . 1956c. *Society and knowledge*. London: Allen & Unwin.
- Clark, J. Grahame D. 1939. *Archaeology and society*. London: Methuen.
- . 1952. *Prehistoric Europe: The economic basis*. London: Methuen.
- Clarke, David L. 1968. *Analytical archaeology*. London: Methuen.
- Collingwood, R. G. 1939. *An autobiography*. Oxford: Oxford University Press.
- Collins, H. 1937. Archaeology of St. Lawrence Island, Alaska. *Smithsonian Miscellaneous Collections* 96(1).
- Colton, Harold S. 1939. Prehistoric culture units and their relationships in northern Arizona. *Museum of Northern Arizona, Bulletin* 17.
- Colton, Harold S., and Lyndon L. Hargrave. 1937. Handbook of northern Arizona pottery wares. *Museum of Northern Arizona, Bulletin* 11.
- Cowgill, George. 1963. Review of “A qualitative method for deriving cultural chronology,” by James A. Ford. *American Anthropologist* 65: 696–699.
- Daniel, Glyn. 1950. *A hundred years of archaeology*. London: Duckworth.
- . 1963. *The idea of prehistory*. Cleveland: World.
- Daniel, Glyn, ed. 1981. *Towards a history of archaeology*, 100–111. London: Thames & Hudson.
- Deetz, James, and E. Dethlefsen. 1965. The Doppler effect and archaeology: A consideration of the spatial aspects of seriation. *Southwestern Journal of Anthropology* 21: 196–206.
- Douglass, Andrew E. 1919. *Climatic cycles and tree growth: A study of the annual rings of trees in relation to climate and solar activity 1*. Washington, DC: Carnegie Institution.
- . 1921. Dating our prehistoric ruins. *Natural History* 21: 27–30.
- Dunnell, Robert C. 1978. Style and function: A fundamental dichotomy. *American Antiquity* 43: 192–202.
- Durkheim, Emile. [1895] 1938. *The rules of sociological method*. 8th ed. Ed. G. E. G. Catlin. Glencoe, IL: Free Press.
- Ehrich, Robert W. 1950. Some reflections on archaeological interpretation. *American Anthropologist* 52: 468–482.
- Fagan, Brian. 1991. *Ancient North America: The archaeology of a continent*. London: Thames & Hudson.
- Fitting, James E. (ed.). 1973. *The development of North American archaeology*. Garden City, NY: Anchor.
- Flannery, Kent V. 1967. Culture history v. culture process: A debate in American archaeology. *Scientific American* 217(2): 119–122.
- Ford, James A. 1936. *Analysis of village site collections from Louisiana and Mississippi*. Anthropological Study 2. New Orleans: Department of Conservation, Louisiana Geological Survey.
- . 1938. A chronological method applicable to the Southeast. *American Antiquity* 3: 260–264.
- . 1949. Cultural dating of prehistoric sites in the Viru valley, Peru. *American Museum of Natural History, Anthropological Papers* 43(1): 29–89.
- . 1952. Measurements of some prehistoric design developments in the southeastern states. *American Museum of Natural History, Anthropological Papers* 44(3): 313–384.

- . 1954a. Comment on A. C. Spaulding's "Statistical techniques for the discovery of artifact types." *American Antiquity* 19: 390–391.
- . 1954b. Spaulding's review of Ford. *American Anthropologist* 56: 109–112.
- . 1954c. On the concept of types: The type concept revisited. *American Anthropologist* 56: 42–53.
- Ford, James A., and Gordon R. Willey. 1941. An interpretation of the prehistory of the eastern United States. *American Anthropologist* 43: 325–363.
- Foucault, Michel. 1972. *The archaeology of knowledge*. New York: Pantheon.
- Fox, Cyril. 1923. *The archaeology of the Cambridge region*. Cambridge: Cambridge University Press.
- Frankfort, Henri. 1951. *Birth of civilization in the Near East*. London: Bann.
- Fry, Robert E. 1979. The economy of pottery at Tikal, Guatemala: Models of exchange for serving vessels. *American Antiquity* 44: 494–512.
- Garrod, Dorothy, and D. Bate. 1937. *The Stone Age of Mount Carmel*. Vol. 1, *Excavations at el Wady El-Mughara*. Oxford: Clarendon.
- Giddens, Anthony. 1979. *Central problems in social theory*. Cambridge: Cambridge University Press.
- Gifford, James C. 1960. The type-variety method of ceramic classification as an indicator of cultural phenomena. *American Antiquity* 25: 341–347.
- Gladwin, W., and S. Gladwin. 1930. *The western range of the Red-on-Buff culture*. Medallion Papers 5. Globe: Arizona State Museum.
- . 1934. *A method for the designation of cultures and their variations*. Medallion Papers 16. Globe: Arizona State Museum.
- Harrison, R. J. 1980. *The Beaker Folk*. London: Thames & London.
- Haury, Emil W. 1937. *The Mogollon culture of southwestern New Mexico*. Medallion Papers 20. Globe: Arizona State Museum.
- Hawkes, Christopher F. C. 1954. Archaeological theory and method: Some suggestions from the Old World. *American Anthropologist* 56: 155–168.
- Hawkes, Jacquetta. 1968. The proper study of mankind. *Antiquity* 42: 255–262.
- Hedeager, Lotte. 1978. A quantitative analysis of Roman imports north of the Limes (0–400 AD) and the question of Roman-German exchange. In Kristian Kristiansen and C. Paludan-Müller, eds., *New directions in Scandinavian archaeology*, 191–216. Copenhagen: National Museum of Denmark.
- Heizer, Robert, ed. 1959. *The archaeologist at work: A source book in archaeological method and interpretations*. New York: Harper & Row.
- Hempel, Carl G. 1966. *Philosophy of natural science*. Englewood Cliffs, NJ: Prentice-Hall.
- Hodder, Ian. 1982. *The Present Past*. London: Batsford.
- . 1989. Writing archaeology: Site reports in context. *Antiquity* 63: 268–274.
- . 1991. Interpretive archaeology and its role. *American Antiquity* 56: 7–18.
- . 1992. *Theory and practice in archaeology*. London: Routledge.
- . 1999. *The archaeological process*. Oxford: Blackwell.
- Hole, Frank, Kent V. Flannery, and James Neely. 1969. *Prehistory and human ecology of the Deh Luran plain*. Memoirs of the Museum of Anthropology 1. Ann Arbor: University of Michigan.
- Holmes, William H. 1914. Areas of American culture characterization tentatively outlined as an aid to the study of antiquities. *American Anthropologist* 16: 413–466.
- . 1919. *Handbook of aboriginal American antiquities*. Pt. 1, *Introductory: The Lithic industries*. Bureau of American Ethnology, Bulletin 60. Washington, DC: Government Printing Office.
- Jennings, Jesse D. 1947. Review of "Hiwassee Island" by Thomas M. N. Lewis and Madeline Kneberg. *American Antiquity* 12: 191–193.
- . 1987. *The prehistory of North America*. 3rd ed. Palo Alto, CA: Mayfield.
- Kendall, David. 1969. Some problems and methods in statistical archaeology. *World Archaeology* 1: 68–76.
- Kidder, Alfred V. 1915. Pottery of the Pajarito plateau and of some adjacent regions in New Mexico. *American Anthropological Association, Memoir* 2: 407–462.
- . 1916. Archaeological explorations at Pecos, New Mexico. *National Academy of Sciences, Proceedings* 2: 119–370.
- . 1917. A design-sequence from New Mexico. *National Academy of Sciences, Proceedings* 3: 369–370.
- . 1924. *Papers of the Southwestern Expedition, Phillips Academy*. Vol. 1, *An introduction to the study of southwestern archaeology, with a preliminary account of the excavations at Pecos*. New Haven: Yale University Press.
- . 1932. *Papers of the Southwestern Expedition, Phillips Academy*. Vol. 6, *The artifacts of Pecos*. New Haven: Yale University Press.
- Kidder, Madeleine A., and Alfred V. Kidder. 1917. Notes on the pottery of Pecos. *American Anthropologist* 19: 325–360.
- Kluckhohn, Clyde. 1939. The place of theory in anthropological studies. *Philosophy of Science* 6: 328–344.
- . 1960. The use of typology in anthropological theory. In Anthony F. C. Wallace, ed., *Selected papers of the Fifth International Congress of Anthropological and Ethnological Sciences*, 134–140. Philadelphia: University of Pennsylvania Press.
- Kossinna, Gustaf. 1911. *Die Herkunft der Germanen*. Leipzig: Kabitzsch.
- Krieger, Alex D. 1944. The typological concept. *American Antiquity* 9: 271–288.

- Kroeber, Alfred L. 1916a. Zuni culture sequences. *National Academy of Sciences, Proceedings* 2: 42–45.
- . 1916b. Zuni potsherds. *American Museum of Natural History Anthropological Papers* 18(1): 1–37.
- . 1919. On the principal order in civilization as exemplified by changes of fashion. *American Anthropologist* 21: 235–263.
- . 1931. The culture-area and age-area concepts of Clark Wissler. In S. Rice, ed., *Methods in social science*, 248–265. Chicago: University of Chicago Press.
- . 1939a. Culture and natural areas of native North America. *University of California Publications in American Archaeology and Ethnology* 38: 1–242.
- . 1939b. *Cultural element distributions*. Vol. 11, *Tribes surveyed*. Berkeley: University of California. Anthropological Records 1(7).
- . 1940. Statistical classification. *American Antiquity* 6: 29–44.
- . 1944. *Peruvian archaeology in 1942*. Viking Fund Publication in Anthropology 4. New York: Viking Fund.
- Kroeber, Alfred L., and Clyde Kluckhohn. 1952. *Culture: A critical review of concepts and definitions*. Papers of the Peabody Museum of American Archaeology and Ethnology 47. Cambridge, MA: Peabody Museum.
- Kroeber, Alfred L., and William D. Strong. 1924. The Uhle pottery collections from Chinch. *University of California Publications in American Archaeology and Ethnology* 21(1): 1–54.
- Leakey, Louis. 1931. *The Stone Age cultures of Kenya Colony*. Cambridge: Cambridge University Press.
- Linton, Ralph. 1936. *The study of man: An introduction*. New York: Appleton-Century.
- . 1940. *Acculturation in seven American Indian tribes*. New York: Appleton-Century.
- Lipo, Carl P., Mark E. Madsen, Robert C. Dunnell, and Terry Hunt. 1997. Population structure, cultural transmission, and frequency seriation. *Journal of Anthropological Archaeology* 16: 301–333.
- Lowie, Robert H. 1937. *The history of ethnological theory*. New York: Farrar & Rinehart.
- Lyman, R. Lee, and Michael J. O'Brien. 1998. The goals of evolutionary archaeology. *Current Anthropology* 39: 615–652.
- Lyman, R. Lee, Michael J. O'Brien, and Robert C. Dunnell. 1997a. *The rise and fall of culture history*. New York: Plenum.
- Lyman, R. Lee, Michael J. O'Brien, and Robert C. Dunnell (eds.). 1997b. *Americanist culture history: Fundamentals of time, space, and form*. New York: Plenum.
- Mason, Otis T. 1896. Influence of the environment upon human industries or arts. *Annual Report of the Smithsonian Institution for 1895*, 639–665.
- Mayr, Ernst. 1995. Systems of ordering data. *Biology and Philosophy* 10: 419–434.
- McKern, W. C. 1934. *Certain cultural classification problems in Middle Western archaeology*. Washington, DC: National Research Council, Committee on State Archaeological Survey.
- . 1939. The Midwestern taxonomic method as an aid to archaeological culture study. *American Antiquity* 4: 301–313.
- . 1940. Application of the Midwestern taxonomic method. *Bulletin of the Archaeological Society of Delaware* 3: 18–21.
- Meinander, C. 1981. The concept of culture in European archaeological literature. In Glyn E. Daniel, ed., *Toward a history of archaeology*, 100–111. London: Thames & Hudson.
- Meltzer, David. 1979. Paradigms and the nature of change in American archaeology. *American Antiquity* 44: 644–657.
- Milke, W. 1949. The quantitative distribution of cultural similarities and their cartographic representation. *American Anthropologist* 51: 237–252.
- Mills, W. 1902. Excavations of the Adena mound. *Ohio Archaeological and Historical Quarterly* 10: 452–479.
- Morris, Ian. 2000. *Archaeology as cultural history*. Oxford: Blackwell.
- Murdock, George. 1948. Clark Wissler, 1870–1947. *American Anthropologist* 50: 292–304.
- Myers, J. L. 1911. *The dawn of history*. London: Williams & Norgate.
- Nelson, Nels C. 1916. Chronology of the Tano ruins, New Mexico. *American Anthropologist* 18: 159–180.
- Ortiz, F. 1947. *Cuban counterpoint: Tobacco and sugar*. New York: Knopf.
- Patterson, Thomas C. 1986. The last sixty years: Toward a social history of Americanist archaeology in the United States. *American Anthropologist* 88: 7–26.
- Peake, H. J. E. 1922. *The Bronze Age and the Celtic world*. London: Benn.
- Phillips, Philip, James A. Ford, and James B. Griffin. 1951. *Archaeological survey in the lower Mississippi valley, 1940–1947*. Paper 25. Cambridge, MA: Peabody Museum of American Archaeology and Ethnology.
- Phillips, Philip, and Gordon R. Willey. 1953. Method and theory in American archaeology: An operational basis for culture-historical integration. *American Anthropologist* 55: 615–633.
- Piggott, Stuart. 1965. *Ancient Europe*. Edinburgh: Edinburgh University Press.
- Preucel, Robert, and Ian Hodder (eds.). 1996. *Contemporary archaeology in theory*. Oxford: Blackwell.
- Quimby, George I. 1954. Cultural and natural areas before Kroeber. *American Antiquity* 19: 317–331.
- Renfrew, A. Colin, and Paul G. Bahn. 1991. *Archaeology: Theories, methods, and practice*. London: Thames & Hudson.
- Ritchie, W. 1937. Cultural influences from Ohio in New York archaeology. *American Antiquity* 2: 182–194.
- Robinson, W. 1951. A method for chronologically ordering archaeological deposits. *American Antiquity* 16: 293–310.

- Rouse, Irving. 1939. *Prehistory in Haiti: A study in method*. Yale University Publications in Anthropology 21. New Haven: Yale University Press.
- . 1941. *Culture of the Ft Liberte Region, Haiti*. Yale University Publications in Anthropology 24. New Haven: Yale University Press.
- . 1952. Puerto Rican prehistory: Introduction: Excavations in the west and north. *Transactions of the New York Academy of Science* 18(3): 305–460.
- . 1953. The strategy of culture history. In Sol Tax, ed., *Anthropology Today*, 84–103. Chicago: University of Chicago.
- . 1955. On the correlation of phases of culture. *American Anthropologist* 57: 713–722.
- Sabloff, Jeremy, and Gordon R. Willey. 1967. The collapse of Maya civilization in the southern lowlands: A consideration of history and process. *Southwestern Journal of Anthropology* 23: 311–336.
- Samuel, R. 1992. Reading the signs, part II: Fact-grubbers and mind-readers. *History Workshop Journal* 33: 220–252.
- Sapir, Edward. 1916. *Time perspectives in aboriginal American culture: A study in method*. Canada Department of Mines, Geological Survey, Memoir 90. Ottawa: Government Printing Bureau.
- Schmidt, W. 1939. *The culture historical method of ethnology*. New York: Fortuny's.
- Sears, William H. 1961. The study of social and religious systems in North American archaeology. *Current Anthropology* 2: 223–246.
- Shettrone, H. 1941. *The mound-builders*. New York: Appleton-Century.
- Smith, H. 1910. *The prehistoric ethnology of a Kentucky site*. Anthropological Papers 6(2). New York: American Museum of Natural History.
- Spaulding, Albert C. 1953a. Review of "Measurements of some prehistoric design developments in the southeastern states by J. A. Ford." *American Anthropologist* 55: 588–591.
- . 1953b. Statistical techniques for the discovery of artifact types. *American Antiquity* 18: 305–313.
- . 1954a. Reply (to Ford). *American Anthropologist* 56: 112–114.
- . 1954b. Reply to Ford. *American Antiquity* 19: 391–393.
- . 1968. Explanation in archaeology. In Sally R. Binford and Lewis R. Binford, eds., *New perspectives in archaeology*, 33–39. Chicago: Aldine.
- Spier, Leslie. 1917. An outline for the study of Zuni ruins. *American Museum of Natural History, Anthropological Papers* 18(3): 207–331.
- . 1918. Notes on some Little Colorado ruins. *American Museum of Natural History, Anthropological Papers* 18(4): 333–362.
- . 1919. Ruins in the White Mountains, Arizona. *American Museum of Natural History, Anthropological Papers* 18(5): 363–388.
- Steward, J. 1941. Review of "Prehistoric culture units and their relationship in northern Arizona," by Harold S. Colton. *American Antiquity* 6: 366–367.
- Strong, William D. 1933. Plains culture in the light of archaeology. *American Anthropologist* 35: 271–287.
- . 1952. The value of archaeology in the training of professional anthropologists. *American Anthropologist* 54: 318–321.
- Taylor, Walter W. 1948. *A study of archaeology*. Memoir 69. Menasha, WI: American Anthropological Association.
- Thompson, R. 1956. The subjective element in archaeological inference. *Southwestern Journal of Anthropology* 12: 327–332.
- Trigger, Bruce. 1978. *Time and traditions: Essays in archaeological interpretation*. Edinburgh: Edinburgh University Press.
- . 1989. *A history of archaeological thought*. Cambridge: Cambridge University Press.
- Tylor, Edward B. 1871. *Primitive culture*. London: John Murray.
- Vaillant, George C. 1931. Excavations at Ticoman. *American Museum of Natural History, Anthropological Papers* 32(2): 199–432.
- . 1936. The history of the Valley of Mexico. *Natural History* 38: 324–328.
- . 1937. History and stratigraphy in the Valley of Mexico. *Scientific Monthly* 44: 307–324.
- Webster, Gary. 1996a. *A prehistory of Sardinia, 2300–500 BC*. Sheffield: Sheffield Academic Press.
- . 1996b. Social archaeology and the irrational. *Current Anthropology* 37(4): 609–627.
- . 1999. *Archaeology: Verse accounts of the writings of V. Gordon Childe*. Lewiston, NY: Mellen Poetry Press.
- . 2001a. *Duos Nuraghes: A Bronze Age settlement in Sardinia*. Vol. 1, *An interpretive archaeology*. International Series 949. Oxford: British Archaeological Reports.
- . 2001b. Stratification, normative discontinuity, and metaphor: Archaeology of the middle ground. *Cambridge Journal of Archaeology* 11(2): 223–239.
- Webster, Gary, and Maud Teglund. 1992. Toward the study of colonial-native interactions in Sardinia from c. 1000 BC–AD 456. In Robert H. Tykot and Tamsey K. Andrews, eds., *Sardinia in the Mediterranean: A footprint in the sea*, 448–473. Sheffield: Sheffield Academic Press.
- Webster, Gary, and Maud Webster. 1998a. The chronological and cultural definition of Nuragic VII, AD 456–1015. In Miriam S. Balmuth and Robert H. Tykot, eds., *Sardinian and Aegean chronology*: 383–395. Oxford: Oxbow.
- . 1998b. The Duos Nuraghes project in Sardinia: 1985–1996 interim report. *Journal of Field Archaeology* 25(2): 183–201.
- Wheat, J., J. Gifford, and W. Wasley. 1958. Ceramic variety, type cluster, and ceramic system in southwestern pottery analysis. *American Antiquity* 24: 34–47.
- Wheeler, Mortimer. 1954. *Archaeology from the earth*. Baltimore, MD: Penguin.

- Whiteford, A. 1947. Description of artifact analysis. *American Antiquity* 12: 226–239.
- Wiley, Gordon R. 1945. Horizon styles and pottery traditions in Peruvian archaeology. *American Antiquity* 10: 49–56.
- . 1953a. Archaeological theories and interpretations: New World. In Alfred L. Kroeber, ed., *Anthropology today: An encyclopedic inventory*, 361–385. Chicago: University of Chicago Press.
- . 1953b. A pattern of diffusion-acculturation. *Southwestern Journal of Anthropology* 9: 369–384.
- Wiley, Gordon R., and Philip Phillips. 1955. Method and theory in American archaeology II: Historical-developmental interpretation. *American Anthropologist* 57: 723–819.
- . 1958. *Method and theory in American archaeology*. Chicago: University of Chicago Press.
- Wiley, Gordon R., and Jeremy A. Sabloff. 1974. *A history of American archaeology*. San Francisco: Freeman.
- . 1980. *A history of American archaeology*. 2nd ed. San Francisco: Freeman.
- Wiley, Gordon R., and Richard B. Woodbury. 1942. A chronological outline for the northwest Florida coast. *American Antiquity* 7: 232–254.
- Wissler, Clark. 1916. The application of statistical methods to the data on the Trenton Argillite culture. *American Anthropologist* 18: 190–197.
- . 1923. *Man and culture*. New York: Crowell.
- Wylie, Alison. 1985. The reaction against analogy. *Advances in Archaeological Method and Theory* 8: 63–111.