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Author(s): Lewis R. Binford

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MORTUARY PRACTICES: THEIR STUDY AND THEIR POTENTIAL

LEWIS R. BINFORD

ABSTRACT

The explanations of burial customs provided by previous anthropologists are examined at length together with the assumptions and data orientations that lay behind them. Both the assumptions and explanations are shown to be inadequate from the point of view of systems theory and from a detailed examination of the empirical record. A cross-cultural survey drawn from the Human Relations Area Files shows that associations do exist between measures of mortuary ritual variety and structural complexity. It was found that both the number and specific forms of the dimensions of the social persona commonly recognized in mortuary ritual vary significantly with the organizational complexity of the society as measured by different forms of subsistence practice. Moreover, the forms that differentiations in mortuary ritual take vary significantly with the dimensions of the social persona symbolized. Hence, much of contemporary archaeological conjecture and interpretation regarding processes of cultural change, cultural differentiation, and the presence of specific burial customs is inadequate as well as the ideational propositions and assumptions underlying these notions. Inferences about the presumed "relationships" compared directly from trait lists obtaining among archaeological manifestations are useless without knowledge of the organizational properties of the pertinent cultural systems.

Department of Anthropology
University of New Mexico
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HUMAN BURIALS are one of the most frequently encountered classes of cultural feature observed by archaeologists. If this high frequency of encounter were to bring with it greater conceptual elaboration, as postulated in Whorf's "Eskimo and snow principle" (1956:216), then we might expect archaeologists to have developed a complicated paradigm for describing and analyzing human burials. Yet, while there exists a specialized descriptive lexicon (extended, flexed, semi-flexed burials, bundle or flesh burials, cremations or inhumations, etc.) which reveals a concern with the description of observed differences and similarities, there is a surprising lack of literature in which attempts are made to deal with burials as a distinct class of variable phenomena. The majority of both comparative and theoretical efforts have been made by ethnologists working with data from living groups. Rarely, however, have there been attempts to explain variable burial data as observed at a given location, between locations, or as documented in the general literature.

In approaching the literature on mortuary practices, three general classes of information were sought:

1. Documentation of the philosophical perspective from which previous workers have approached the problem of explaining various facets of mortuary custom.
2. An inventory of both the specific arguments and empirical generalizations which have been offered to explain variations in mortuary practice.
3. From the above, I have sought to document arguments which have been advanced regarding variations in the form of spatial configurations of burials, as well as observable trends, or temporal sequences of formal changes, in mortuary practice.

PHILOSOPHICAL PERSPECTIVES OF PAST INVESTIGATORS

The relevance of mortuary practices to the general study of religion served to focus early anthropological interests in this area. Discussion of mortuary customs was normally presented within the context of considerations of "primitive religion."

Tylor (1871) developed the argument that animism, or the belief in spiritual beings, arose in the context of dream and death experience. A body-soul dichotomy was perceived in dream, and projected into the death situation in which survival of the ghost-soul after destruction of the body was postulated. Frazer (1886) elaborated on these ideas and argued that all mortuary ritual was motivated by fear of the deceased's ghost-soul, and was an attempt on the part of the living to control the actions of the ghosts of the dead. For instance, he states that:

heavy stones were piled on his grave to keep him down, on the principle of "sit tibi terra gravis." This is the origin of funeral cairns and tombstones [1886:65].

The nearly universal practice of leaving food on the tomb or of actually passing it into the grave by means of an aperture or tube is too well known to need illustration. Like the habit of dressing the dead in his best clothes, it probably originated in the selfish but not unkindly desire to induce the perturbed spirit to rest in the grave and not come plaguing the living for food and raiment [1886:74-75].

In the tradition of Tylor-Frazer, we can document the rationalist-idealist's argument that ideas or beliefs were the relevant variables to be used in understanding cultural or behavioral differences and similarities. In the same year as Frazer's works quoted above, the first comparative study of mortuary practices was published in the United States (Yarrow 1880, 1881). Justification for the study was given in the following way: "The mortuary customs of savage or barbaric people have a deep significance from the fact that in them are revealed much of the philosophy of the people by whom they are practiced" (Yarrow 1880:3). An early comparative study of mortuary practices as known archaeologically was conducted by the Frenchman, Viollier. "We study burial to gain information on religion and beliefs" (Viollier 1911:123). Later, the same tradition of anthropological investigation is exemplified by John M. Tyler, "The changes in the mode of disposal of the dead are evidently the results of changed views concerning the future life" (Tyler 1921:123).

Those who approached their subject matter from the perspective of the rationalist-idealist normally generated propositions which correlated certain practices with certain postulated or observed forms of belief. Sometimes these proposed or observed correlations are cited as "rational" or "natural" intellectual responses to certain classes of experience.

In defense of this approach, it should be pointed out that men like Tylor and Frazer were interested primarily in cultural similarities. They sought to uncover the common basis for diverse practices and to document similarities between the practices of a wide variety of peoples. Seldom was analytical attention given to cultural differences except insofar as they were thought to reflect societies at different levels in a postulated sequence of progressive development.

The argument against an idealist position is, of course, to point out that, by a referral of observed differences within one class of phenomena (behavior) to postulated differences within another (ideas), we are forced to seek the explanations for differences in ideas and in the conditions favoring their change. Robertson Smith was one of the early challengers to the idealists' philosophy as exemplified by Tylor and Frazer; "Our modern habit is to look at religion from the side of belief rather than of practice . . . so far as myths consist of explanations of ritual, their value is altogether secondary . . . the conclusion is that in the study of ancient religions we must begin, not with myth, but with ritual and traditional usage" (Smith 1894:16-18). This criticism was elaborated and developed by members of the *L'Annee Sociologique* school of Durkheim. They stressed that rites were related to other institutions of the social system and could be expected to vary in form and structure with the social variables. Hertz was one of the earliest of the Durkheimian thinkers to treat mortuary ritual effectively. He argued that simplistic "explanations" of burial rites as natural human responses of horror to a decaying corpse are untenable, since this "natural horror" is mitigated by the social importance of the deceased. "Within the same society the emotion provoked by death varies wildly in intensity according to the social character of the deceased" (Hertz 1960:82). Hertz goes on to point out that children and aged persons (1960:92) as well as persons suffering violent deaths, death by accident, suicides, death in childbirth, etc., are frequently afforded differential mortuary treatment (1960:95). This is in addition to the differentiations previously mentioned which relate to the social position of the deceased. Hertz develops the argument that death occasions an initiation rite into the afterworld (1960:86), and is treated by members of society as are other status changes, such as initiation at puberty, birth rites, etc. He argues that differences in mortuary ritual will vary directly with (a) the status of the person within the living community and (b) the perceived relationship of that status to the status of full participant in the "society of souls." Persons who are full participants in the corporal society at the time of their death must be afforded rites which sever their relationship with that society.

A common practice is a second rite which marks the incorporation of the deceased into the "invisible society." For those who are not full societal participants at the time of death, minimal rites of incorporation into the "invisible society" are given. Such is the case with very old men, who have essentially ceased participation, or children, who have not yet become members of the "visible society."

Four years after the publication of Hertz's work, Van Gennep published his famous work *Les Rites de Passage* (1932) in which there is an expansion of the thesis that rites serve to mark changes of status or condition. There is, however, no specific development of arguments about mortuary practices beyond those of Hertz.

Durkheim, in writing about mortuary rites (1954:403), treats them in the generic sense as had Van Gennep; there is no development or argument which would offer explanations for differences observed in such rites.

Following the works of the French school was the publication of Radcliffe-Brown's monograph, *The Andaman Islanders*. He discusses the problem of the basis for the practice of mortuary rites, stating that:

The burial customs of the Andamanese are to be explained, I believe, as a collective reaction against the attack on the collective feeling of solidarity constituted by the death of a member of the social group [1922:286].

Defining the "social personality" of an individual as being the sum of characteristics by which he has an effect upon the social life and therefore on the social sentiments of others, we may say that by death the social personality is not annihilated but undergoes a profound change, so that from being an object of pleasurable states of the social sentiments it becomes an object of painful states [1922:285].

Shortly afterwards, Malinowski (1925) presented his well-known thesis that magic is practiced in the presence of anxiety stemming from inadequate control of the forces of nature.

Death in a primitive society is, therefore, much more than the removal of a member. By setting in motion one part of the deep forces of the instinct of self-preservation, it threatens the very cohesion and solidarity of the group, and upon this depends the organization of that society . . . ceremonial of death . . . counteracts the centrifugal forces of fear, dismay, demoralization, and provided the most powerful means for reintegration of the group's shaken solidarity [1925:53].

In 1939 Radcliffe-Brown argued strongly against the ideas of Malinowski, setting forth the opposite proposition that "if it were not for the existence of the rite and the beliefs associated with it the individuals would feel no anxiety, and that the psychological effect of the rite is to create in him a sense of insecurity or danger" (Radcliffe-Brown 1952:142).

In this same article, it is quite clear that Radcliffe-Brown was not particularly interested in offering explanations for observed differences. Like his rationalist-idealist predecessors, he was primarily interested in abstracting analogous features from observed situations. These then served as the basis for generalizations about the subject class of phenomena, and were in turn cited as "explanations" for the observed behavior (Homans 1941):

Ritual values exist in every known society, and show an immense diversity as we pass from one society to another. The problem of a natural science of society is to discover the deeper, not immediately perceptible, uniformities beneath the superficial differences [Radcliffe-Brown 1952:142].

The basic question is what is the relation of ritual and ritual values to the essential constitution of human society [Radcliffe-Brown 1952:142].

Although Radcliffe-Brown seems to have shared a basic methodology with his predecessors, he differed in what he considered appropriate features for generalizing. He did not cite generalizations regarding beliefs (as explanation) but rather those regarding sentiments, "The beliefs by which the rites themselves are justified and given some sort of consistency are the rationalizations of symbolic actions and of the sentiments associated with them" (Radcliffe-Brown 1952:152).

These works provide the general intellectual context in terms of which anthropologists have approached the study of mortuary custom. Common to these writers has been the development of arguments regarding the motivational or responsive context in which individuals might be expected to differentially behave, though this differential behavior is always commensurate with the range of behavioral variability known ethnographically.

Little attention was actually given to the study of distributions of variability as documented either within or among socio-cultural units. Concern in these works had been with mortuary custom in the abstract or focused on particular categories of mortuary practices; double burial (Hertz 1960), burial cairns (Frazer 1886), or the burial practices of a particular society (Radcliffe-Brown 1922). While there has been some progressive discussion of the most fruitful context in which to perceive customary differences in mortuary practice, differences in belief systems, differences in forms of social organization, or differences in systems of social value,

theory has failed to develop to a point where it yields a context in which explanations can be offered for observed differences or similarities.

Anthropologists, particularly archaeologists, working to achieve the reconstruction of culture history have approached the study of mortuary custom much differently. It is to these types of study that I now turn my attention.

HISTORICAL-DISTRIBUTIONAL APPROACHES

The culture historian may begin by plotting the distribution of a given form and then attempts to "explain" it in historical terms, or he may present a historical "reconstruction" in terms of which a distributional prediction is advanced. Regardless of the strategy followed, some assumptions or propositions must be put forward regarding the variables which would operate to generate formal variability in mortuary custom and to condition different spatial-temporal configurations.

Further, some assumptions must be made regarding the historical significance of observed differences or similarities, and the degree that formal analogies would be accepted as stemming from identical or related historical-event sequences. While not particularly concerned with the specifics of the interpretive principles employed for "reading history" from distributions, I am vitally interested in the methods that have been employed and the assumptions which have been made about the determinant context in which variability might be expected to arise.

The purpose of this discussion is to determine whether or not there is sufficient empirical material extant in the literature to evaluate the accuracy of the assumptions made by culture historians in arriving at historical reconstructions based on mortuary data.

The assumptions commonly governing historical reconstruction can be outlined as follows:

1. *Culture is a body of custom which arises in the context of the conceptual-intellectual life of peoples; it distributionally varies directly as a function of the patterns of transmission and communication among peoples, and with the differential capacities or opportunities for intellectual experience.* This is, of course, my generalization of the idealist's assumption which has dominated anthropology and is still the most accepted conceptualization of culture (see Kroeber and Kluckhohn 1952:180-190).
2. *The customs of a single socio-cultural tradition were originally uniform and formally distinct.* This assumption normally remains implicit in most studies but is easily inferred from one of its corollaries given below. There is an interesting analogy between this assumption and that of the now-discredited assumption of "pure races" which misguided racial studies for many years. The modal or normative assumption is still current in archaeology (see Aberle 1960, and Binford 1965, for criticism). *Multiple practices observed among socio-cultural units result from cultural mixing or hybridization in the past.* (Perry 1914; Rivers 1913; Thomas 1908; Toulouse 1944; Davidson 1948; James 1928; Stanislawski 1963; Myers 1942).
3. *For practical purposes, the degree of formal similarity observed among independent socio-cultural units is a direct measure of the degree of genetic or affiliational cultural relationship among the units being compared.* It has frequently been argued that this is particularly true with regard to mortuary practices which have been frequently endowed, by observers, with unusual stability (see Rivers 1913; Perry 1914; Stanislawski 1963).

It is recognized that the various schools of historical interpretation differed over many of the qualifications placed on these assumptions. Similarly, they have varied with regard either to the weighting given various culture traits, or to the specifics of historical significance attributed to these traits. Nevertheless, these assumptions have been basic to historical reconstruction.

Many regional and continental distributional studies were conducted in the context of the various schools of "historical" anthropology. Both Graebner (1905) and Schmidt (1913) studied mortuary practices as means to historical reconstruction, as did their students (Küsters 1919-20). Similarly, the leaders (Perry 1914) as well as the followers of the "Pan-Egyptian" arguments showed particular interest in mortuary practices, especially mummification (Dawson 1928) and celestial references in mortuary rites (Rose 1922). Historical reconstructions based on the comparative study of mortuary rites have also been attempted by American and less extreme

British diffusionists (James 1928; Thomas 1908; Toulouse 1944; Davidson 1948; Stanislawski 1963).

In 1927, A. L. Kroeber published a short paper titled "Disposal of the Dead" in which he questioned the degree that burial practices distributionally studied were as useful for historical inquiries as other features of culture. He observed that the distributions of mortuary traits did not conform to the boundaries of culture areas or sub-areas as defined by other traits. He reasoned that "If the distributions were to be interpreted as is customary, it was evident that methods of corpse disposal have had a history that was less simple and regular, and more fluctuating, than most elements of native Californian Culture" (Kroeber 1927:308). Kroeber then proceeded to argue that there may be less stability in "affect-laden customs" than in those which are "emotionally low-toned." By the citation of empirical studies documenting great variability in the distributions of mortuary traits, he further argues that:

These variations between adjacent peoples, and the numerous instances of coexistence of several practices within one population, constitute a powerful argument for instability [Kroeber 1927:313].

From this follows the generalization that intensity of feeling regarding any institution is likely to be a poor criterion, if any, of its permanence. Emotion evidently attaches secondarily to social behavior much as thought does. The completeness and plausibility of a rationalization are no index of the reality of its purported motivation; the immediacy and intensity of emotion concerning a cultural practice are no index of the origin or durability of that practice. [Kroeber 1927:313].

Up until this point, Kroeber seems to be directing his argument generally against W. H. R. Rivers, who had argued that, because of the affect associated with death rites, mortuary customs would be adhered to with special tenacity. Once Kroeber presents his argument against this position, he states:

More fruitful, perhaps, is a consideration of the type of motivation or historic causality that influences modes of disposal of the dead. Here it appears that a feature which is pretty likely to characterize mortuary practices is their dissociation from certain large blocks of cultural activity, especially those having to do with material and economic life, its subsistence and mechanical aspects. That is, disposal of the dead has little connection with that part of behavior which related to the biological or primary social necessities, with those activities which are a frequent or constant portion of living and therefore tend to become interadapted and dependent one on the other. On the other hand, disposal of the dead also does not lend itself to any great degree of integration with domains of behavior which are susceptible of formalization and codification, like law, much of religion, and social organization. Standing apart, therefore, both from the basic types of activities which mostly regulate themselves unconsciously, and from those which largely involve relations of persons and therefore become socially conscious and systematized, disposal of the dead falls rather into a class with fashions, than with either customs or folkways on the one hand, or institutions on the other. It does not readily enter intrinsically into the inevitable integrations of the bases of life nor into attempts at wider systems [Kroeber 1927:314].

Kroeber's argument considers the degree to which "emotion" plays a role in conditioning the environment for intellectual innovation and transmission of information. In his argument, he is essentially in agreement with Radcliffe-Brown's proposition (1952:148-149) that the differential intensity of emotional responses to different life experiences would not condition the form and direction of cultural innovation directly. This position, as we have pointed out, was opposed by Malinowski (1925).

Kroeber's argument, however, shifts the emphasis to a consideration of mortuary practices *per se* and offers the proposition that the apparent "instability" and the documented wide range of formal variability in mortuary practice is evidence of the essential emotional independence of mortuary customs from "core" cultural features. This is a proposition which, if accurate, would be compatible with the apparent failure of mortuary traits to associate with the distributional configurations demonstrated for the "core" cultural features of California aboriginal societies.

Kroeber challenges the implicit assumption that all cultural features, including mortuary practices, are of equal utility for use under the normal assumptions employed in historical reconstruction. This challenge was one of the first serious considerations given to the possibility that all cultural features did not respond mechanistically to the same sets of historical variables. The following materials have been organized to test, with observational data amassed by other investigators, the specific propositions set forth by Kroeber. In addition, I hope to use these observations as a basis for judging the validity of the basic assumptions which have guided historical investigations in anthropology.

The two propositions to be tested are: (1) mortuary customs exhibit “unstable” histories, (2) mortuary customs vary independently of behavior “which relates to the biological or primary social necessities.”

In order to test these two propositions, two summaries will be presented; the first will relate directly to Kroeber’s initial proposition. The second will synthesize observations that have been made on the sets of variables applicable for understanding variation in mortuary custom. The information synthesized in the latter survey will then be used to test the validity of Kroeber’s second proposition and to evaluate the validity of the assumptions used in historical reconstructions.

Erminie Wheeler Voegelin conducted an analysis of the ethnohistorical information available regarding Shawnee burial practices spanning a 114 yr period. She concluded that:

Comparison of the historical material relating to mortuary customs and field accounts of present-day informants has shown the remarkable stability of the Shawnee burial complex. During the period from 1824-1938 the complex remained almost unchanged in its larger features, such as treatment of the corpse, funerary procedure, and construction of graves [Voegelin 1944:666].

Kroeber pointed out in his original argument: “There are certainly instances of mortuary habits that have continued for long times with only minor modification: in dynastic Egypt, for instance; in most of Europe during most of the Neolithic, in all but the fringe of Pueblo culture” (Kroeber 1927:314).

These empirical cases to the contrary provide material for argument against Kroeber’s generalization that mortuary customs have some intrinsic or “essential” qualities which would tend to insure their exhibiting unstable histories. Rather, there seems to be a wide range of variability in the relative stability of mortuary practices. Some historical sequences exhibit a rather remarkable stability while others change radically and rapidly. Some areas are characterized by vast heterogeneity in practices both regionally and with regard to single socio-cultural systems. Explanations for differences and similarities, which are sought by postulating a constant psychological context for the execution of mortuary customs, will never lead to an explanation of observed variability.

The empirical generalization that mortuary customs tend to be inherently less stable and more variable is refuted by numerous empirical cases to the contrary. The attempt to link the postulated instability to the psychological context of “affect-laden customs,” where certain behavioral expectations are proposed, collapses with the demonstrated inaccuracy of the initial empirical generalization.

We now consider Kroeber’s second proposition: the degree that mortuary customs vary independently of behavior “which relates to the biological or primary social necessities.” This can be accomplished by demonstrating that there is an absence of correlation between mortuary customs and social organizational and technological variables. What then of the observations that have been made regarding the correlates of mortuary variability within and among socio-cultural units?

ARGUMENTS OFFERED TO ACCOUNT FOR VARIABILITY IN MORTUARY RITES PRACTICED BY DISTINCT SOCIO-CULTURAL UNITS

In the works of previous investigators, three basic arguments are generally offered to account for differences in mortuary practices as conducted among participants of a single society.

1. The limiting effects of the environment, obtaining at the time of death, on the free exercise of all forms of body disposal.
2. Mutual effects of intersocietal contact in producing amalgamations or replacements of ritual forms.
3. The characteristics recognized as relevant to the relationships either severed or established at death between the deceased and the remaining members of a society.

The first argument is one which recognizes a relationship between the form of mortuary rites, particularly the disposition of the body, and the limiting features of the local environment. For instance, Schoolcraft (1855) proposed that the practices of inhumation and scaffold burial as noted for the Winnebago were options to be exercised alternatively, depending on whether the

death occurred during the winter, when the ground was frozen, or during the warmer months when inhumation was a realistic alternative.

Although this particular hypothesis has been questioned on empirical grounds (Radin 1923:140), the proposition that different forms of corpse disposal may relate to the environmental conditions obtaining at the time of death is a reasonable proposition and one which has prompted very little investigation.

Under the second argument fall the diffusionistic interpretations so common in the literature (see Thomas 1908:388; Perry 1914:289-290; James 1928:229; Griffin 1930:43; Toulouse 1944:70; Stanislawski 1963:308, 315). Perry (1914), in considering the results of culture contacts, argues that the demonstrable variety in burial practices among Australian groups is evidence for sustained contact between diverse cultural systems. In a subsequent article he argues that the presence of different forms of grave orientation as practiced by members of a single society is reasonably taken as evidence for the blending of two cultures previously distinct (Perry 1914:289-290). Frequently, in regional studies, the citation of mixed practices is offered as evidence for contacts between cultures. It is implied that blending is the expected outcome of contacts between socio-cultural systems, each with its own "norm" of mortuary ritual. Diffusionistic interpretations, such as those cited above, are generally given in the context of idealistic arguments where "beliefs" are assumed to be the primary controlling variables in determining the nature of mortuary rites. Contacts are said to foster the exchange of "ideas" which may result in the modification of custom, of which changes in mortuary ritual might be one example.

The following is a list of the most commonly cited propositions as to the relationship between forms of mortuary custom and beliefs.

1. *Propositions offered in "explanation" for formal variations in the manner of treating the dead prior to interment.*
 - a. *Propositions regarding the practice of cremation.*
 - (1) Cremation is associated with belief in an afterworld in the sky; burning the physical remains releases the soul which is then transported to the celestial afterworld via the ascending smoke (James 1928:232-233).
 - (2) Cremation is associated with extreme fear of the corpse and hence a desire to "be done with it" (Malinowski 1925:49).
 - b. *Propositions regarding the practice of mummification.*
 - (1) "The aim of mummification both in Egypt and elsewhere was twofold; first, to preserve the body from decay, and secondly to secure the personal survival of the individual" (Dawson 1928:136; Malinowski 1925:49).
2. *Propositions offered in "explanation" for formal variations in the manner of arranging the body in the grave.*
 - a. *Propositions regarding the practice of flexing the body.*
 - (1) Flexing the body was a copy of the position of the foetus in utero which was taken as a symbol of rebirth (Tyler 1921:124; Wilder and Whipple 1917:376; Grottanelli 1947:83; Küsters 1919-20:684).
 - (2) Flexing of the body was the result of binding the legs to the body to prevent the spirit from walking and thus returning to the living (see Tyler 1921:124; Wilder and Whipple 1917:376; Grottanelli 1947:83).
 - b. *Propositions regarding the orientation of the dead in the grave relative to specific reference points.*
 - (1) Orientation of the body in death with respect to cardinal directions "seems to be the working out of the solar analogy, on the one hand is death at sunset . . . new life at sunrise" (Tylor 1871:508).
 - (2) Orientation of the body in death with respect to cardinal directions (celestial orientation) is related to a belief in a continued life of the dead man at a celestial land of the dead, orientation being in the direction the deceased must travel in their journey to the land of the dead (Rose 1922:132-133).
 - (3) Orientation of the body with respect to terrestrial reference points is related to a belief in reincarnation since the body is aligned toward the location where the soul

must reside before being reborn (Rose 1922:129-132).

- (4) The direction of orientation of the body at death is toward the original home of the forefathers (Spencer 1893, Vol. I:201; Perry 1914:285, Steele 1931:81; Grottanelli 1947:83).

3. *Propositions offered in "explanation" for formal variations in the choice of locations for the grave.*

- (1) "The dead are buried near, or in, their old homes, because they are wanted back again, in the form of babies born of women of their own clan, tribe or family" (Rose 1922:129).
- (2) Tyler, citing the burial of children under house floors, writes: "It is not impossible that we have here one of the ways in which the fear of the dead may have been gradually dispelled. May we not imagine that one of the first steps was the refusal of the mother to allow her dead child to be banished from the house?" (Tyler 1921:125-126).
- (3) In contrast, is the following suggestion as to the origin of hearth burial: "People did not know yet what death was and therefore tried to warm up the body" (Küstters 1919-20:956).
- (4) I will cite one final argument analogous to the one given for orientation; namely, that people selected burial sites with reference to the characteristics of their prior habitat. "Tree burial can be explained by the fact that people originally lived in trees" (Küstters 1919-20:211).

Change or variability in mortuary practice, as demonstrated, is commonly attributed to change or variability in beliefs. Although we are rarely enlightened as to the causes of change in belief, it would appear from this survey that change in belief is generally assumed to proceed from the cumulative experience of man in coping with his environment. There is also the implication that an increase in knowledge and associated changes in the conceptualizations of experience are vital forces driving culture change. This assumption is normally coupled with the argument of cultural conservatism which says that new knowledge is rarely obtained, and, therefore, the appearance of similar cultural elements in multiple societies occurs as a by-product of the transmission of acquired knowledge from one unit to another.

The final set of considerations, which have been cited as relevant to understanding observed variability in the practices of a single society, are characteristics of the deceased which might be acknowledged by differentiated mortuary ceremonialism. I have found only three studies which attempted to gather specific data on this subject (Küstters 1919-20; Bendann 1930; Wedgwood 1927). However, many other authors have offered empirical generalizations relevant to this problem from data which they surveyed. The following quotations are offered as a sample from the literature.

1. James Yarrow commenting on the study of American Indians, 1880: "A complete account of these (burial) customs in any tribe will necessitate the witnessing of many funeral rites, as the customs will differ at the death of different persons, depending upon age, sex, and social standing" (Yarrow 1880:5).
2. W. Crooke with reference to burial practices in India, 1899: "those tribes which habitually cremate the adult dead bury those who perish by violent or unexpected deaths" (Crooke 1899:279).
3. Robert Hertz in a general consideration of mortuary practices, 1907: "Within the same society the emotion provoked by death varies widely in intensity according to the social character of the deceased" (Hertz 1960:82).
4. Van Gennep in a general consideration of rites of passage, 1908: "Everyone knows that funeral rites vary widely among different peoples and that further variations depend on the sex, age, and social position of the deceased" (Van Gennep 1960:146).
5. W. D. Wallis in a general consideration of similarities in culture, 1917: "the social personality of the deceased does not die with the body but passes beyond the death portal. To the body is shown about the same degree of respect that was shown the deceased while alive. The bodies of women are seldom disposed of like those of men, nor those of children like those of adults. The bodies of chiefs and braves are interred in different manner from those of

- common people" (Wallis 1917:46).
6. A. R. Radcliffe-Brown in his consideration of Andamese culture, 1922: "burial customs are not solely due to an instinctive fear of dead bodies, . . . customs vary according to the social position of the deceased. . . . There is, then, a close correspondence between the manner of burial and the social value of the person buried" (Radcliffe-Brown 1922:148).
 7. Camilla H. Wedgwood in a comparative study of Melanesian mortuary practices, 1927: "we find that in Melanesia the distinctions made by people in life are reflected in those made at death. Of these the simplest are those made between children and adults, and between men and women. But more marked are those which differentiated people who, by virtue of their wealth, their valour, or their magical or secular position, are important to the community from those who lack any claim to public esteem; while those who have alienated themselves from the society or endangered it by bringing upon themselves an abnormal death are frequently cut off from the general communion of the dead" (Wedgwood 1927:395).
 8. Effie Bendann in a general comparative study of mortuary practices from Melanesia, Australia, India, and Northeast Siberia, 1930: "The investigation shows that the content of the specific features is dependent upon rank, sex, age, social organization, status" (Bendann 1930:280).
 9. James B. Griffin in a general comparative study of mortuary practices of American Indians from northeastern North America, 1930: "We might like to know how these various methods were explained by the Indians . . . those which do give reasons for different practices . . . we see that among some tribes, such as the Potawatomie and the Ottawa, that the division was along clan lines. Of course, within the clan special burials were accorded to those who had been drowned or who had died in battle, but in general the burial an individual received depended on his clan membership . . . In other writings we find that the various ways burial might take place was occasioned wholly by the manner of death, or the time of year during which the individual died, or the question of absence from the tribal seat would bring about a change in customary procedure . . . Another reason for different burial is to be found in some cases to correspond to the relative position, social standing and occupation of the deceased, and in some cases the age of the deceased played an important part" (Griffin 1930:44-45).

Among other investigators offering similar generalizations we may cite Voegelin 1944:376, Miles 1965, and Davidson 1948:75, each recognized a direct relationship between the differential treatment at death and variations in the social identity of the deceased.

The following were offered by many investigators as the basic components of the social personality, symbolized through differential burial treatment: (1) age, (2) sex, (3) relative social status within a given social unit, and (4) social affiliation in terms of multiple membership units within the society and/or membership in the society itself. In addition, it was frequently noted that peculiar circumstances surrounding the death of an individual may be perceived by the remaining members of a society as altering, in a substantial manner, the obligations of the survivors to acknowledge the social personality of the deceased. Such persons are instead treated as "members" of a post-mortem social unit and afforded mortuary ritual appropriate to such a membership group.

Another contingency, which has been noted as relevant to problems of differential treatment afforded members of a single society, was the disposition of deaths spatially and temporally. I need only mention deaths which occurred far from settlements where special treatment, such as cremation, dismemberment, etc., may facilitate easy transport. Deaths occurring simultaneously as a result of epidemics or massacres might be treated corporately, with mass graves, by virtue of their "unusual" coincidence.

These findings and arguments provide information for evaluating Kroeber's second proposition that mortuary practices were largely independent of other "core" components of a cultural system. The empirical generalizations which have been advanced consistently link formal differentiation in mortuary rites to status differences and to differences in the group affiliation of the deceased. This linkage demonstrates a set of mutual dependencies between forms of mortuary rites and social organizational features. We would then expect that, other things being equal, the heterogeneity in mortuary practice which is characteristic of a single socio-cultural unit would vary

directly with the complexity of the status hierarchy, as well as with the complexity of the overall organization of the society with regard to membership units and other forms of sodalities. This expectation is diametrically opposed to Kroeber's proposition regarding the disassociation of mortuary practices from "core" cultural features.

SUMMARY OF FINDINGS REGARDING THE ARGUMENTS OF KROEBER

It was asserted that three basic assumptions have traditionally guided historical researches. First was the idealist's assumption that cultural variations resulted from either differential intellectual creativity or differential lineal transmission and/or intergroup communication of ideas.

From this, the idealists reasoned that the determinants responsible for temporal or spatial variability of one cultural element would be the same as those responsible for variation in *all* cultural elements; each element was, according to this reasoning, a cultural product responding to identical sets of variables; variables which control creativity and the transmission of ideas.

Kroeber was the first researcher working with mortuary rites to cite empirical materials as a basis for questioning the applicability of some of the fundamental assumptions used in historical interpretation. He observed that many California groups practiced multiple forms of mortuary rites; given the assumptions of historical research, this should have been viewed as evidence for cultural mixing in the past. Kroeber's observations on other distributions of cultural elements did not support such an interpretation. Rather than question the general validity of the normative assumption, Kroeber questioned the categorical appropriateness of mortuary customs as a "proper" cultural element, and the degree that the interpretive assumptions used in historical reconstruction could be applied to mortuary data!

Kroeber proposed that there was a continuum along which culture traits might be arranged according to the degree that they were "integrated" with other culture traits. At one end of the continuum were "core" traits which were strongly interdependent and could be expected, as a result, to exhibit strong complementary distributions. Such distributions were appropriate to historical interpretation under traditional assumptions.

At the other end of the continuum were traits which did not "readily enter intrinsically into the inevitable integrations of the bases of life" (Kroeber 1927:314). Such traits were said to be characterized by (1) detachment from the remainder of culture, (2) a high degree of entry into consciousness, and (3) tendency to strong emotional toning. Mortuary practices and fashions—particularly of dress, luxury, and etiquette—were asserted to be of this type.

With this argument, Kroeber questioned the validity of historical reconstructions based on the analysis of mortuary customs, and indirectly questioned the assumption that all culture traits were governed by essentially the same sets of determinant variables. Mortuary practices should evidence a pattern of historical instability and free variation, while other cultural elements more "basic" or directly linked to "core" subsistence and integrative practices should exhibit a greater stability and a pattern of determined variability.

From the relatively large body of descriptive material available in the ethnographic literature and the numerous comparative and distributional studies, I obtained data to test the propositions set forth by Kroeber as well as those normally serving as assumptions in historical interpretations.

The result was that Kroeber's first proposition, that properties intrinsic to mortuary practices should result in their general historical instability and free variation, was refuted by the demonstrated lack of any such tendency. Numerous cases of "stability" are known, as well as cases of "instability," demonstrating that such configurations must vary in response to determinants not intrinsic to mortuary practices themselves.

Kroeber's second proposition, that forms of burial are not integrated with more basic cultural features such as subsistence activities and organizational features of the society, is clearly refuted by the numerous observations that forms of burial vary directly with the following characteristics of the deceased: (1) age, (2) sex, (3) relative social status within the social unit, and (4) social affiliation in membership units within a society or in the society itself. These characteristics certainly are fundamental to the internal differentiation serving as the basis for organizational features of a society.

With the refutation of Kroeber's propositions, we are faced with his original problem—the

applicability of the assumptions of traditional historical interpretation of mortuary rites. It is argued here that these assumptions are generally invalid; consequently, the historical interpretations which anthropologists have offered in "explanation" of observed differences and similarities in custom are generally suspect and in all probability inaccurate. I will attempt to demonstrate this argument with the development of a frame of reference for comparative study of mortuary rites and provide a test of its usefulness on a body of ethnographic data.

STUDY OF MORTUARY RITES: THEIR POTENTIAL

In mortuary ritual, we observe a class of phenomena consisting of both technical and ritual acts (see Radcliffe-Brown 1952:143 for this distinction). Technically, burial customs provide for the disposal of the potentially unpleasant body of the deceased. Ritually, mortuary rites consist of the execution of a number of symbolic acts that may vary in two ways: in the form of the symbols employed, and in the number and kinds of referents given symbolic recognition.

It will be recalled that the act of symboling is the arbitrary assigning of meaning to form. Therefore, we expect nothing intrinsic in the form of a symbol to limit it to any particular referent. In turn, there is nothing intrinsic in a referent which necessarily determines the form of the symbol to be used in its designation or conceptualization. The forms of symbols may vary independently of their referents and vice versa. In fact, with respect to burial practices, this has been frequently observed. For instance, Kroeber states:

river burial is sometimes reserved for chiefs, sometimes for the drowned, sometimes is the normal practice of a group. Tree and platform burial is in certain populations restricted respectively to musicians, magicians, and the bewitched, the lightning struck, criminals, and Kings. Cremation is generally reserved for criminals, but also occurs as the usual practice. Exposure is variously in usage, according to tribe, for the corpses of criminals, slaves, children, the common people, or the entire population [Kroeber 1927:313].

Thus, when considering the degree that symbolic forms are held in common among a number of independent socio-cultural units, it becomes a matter of investigating the degree that communication systems are isomorphically distributed among socio-cultural systems, and/or the degree that there is an identity between the symbol systems and the referent units symbolized. For instance, groups may share the same set of mortuary symbols but employ them antagonistically; e.g., one group cremates its chiefs and the other cremates its criminals. [This pattern is not unknown in Africa (Küstners 1919-20). The antagonistic use of symbols probably obtained in the Great Lakes of North America; compare grave goods at the sites reported by Binford (1963) and Ritchie (1949).]

That the form of symbols may vary independently of their referents, and that forms may be shared but in a situation of contextual contrasts, are features of cultural variability which obviate the normal diffusionists' interpretive frame of reference. The diffusionists would view forms shared among a number of social units as evidence for the "diffusion" of that particular trait among the societies and hence a document of mutual "influences." Similarly, the presence of symbols unique to each socio-cultural unit, would be viewed as evidence for a lack of mutual cultural influences among the groups compared.

One can readily envision a situation in which independent societies within a region employ a number of symbols of group identity. Some groups might employ symbolic forms which were unique to the group, while others might employ identical forms in antagonistic ways. Given the regional context, each would serve equally well to distinguish among the groups and provide the pervasive symbolic environment which tends to maintain the distinctiveness of the groups.

Nevertheless, the diffusionists would separate those groups employing unique symbols from those who shared similar forms and assert that there was more mutual cultural influence among those sharing identical forms of symbol. The diffusionists' argument would be rooted in the idealists' assumption that knowledge and sharing of ideas are responsible for the formal similarities.

One can readily see that prerequisite to the functioning of the symbols is a common knowledge on the part of all groups. Members of each group would have to know each form and its meaning for the symbols to function as group identifiers. Yet this common knowledge would apply equally to those groups employing distinct symbols and to those employing formally identical symbols.

What differential knowledge or shared "ideas" is indicated by the presence of similar symbolic forms among some of the groups? None. Diffusionists' arguments applied to material remains, whether they be related to mortuary practice or not, are universally suspect insofar as symbols are concerned.

We now turn to the problem of structural variability. When we elect to study comparatively some identified formal category of cultural elements, we must seek to determine the degree to which there is isomorphism between members of the formal class studied and the particular roles played by each in the socio-cultural systems compared.

In the absence of such knowledge, we can expect that different determinants might condition the occurrence and distribution of forms depending upon the difference in functions performed by the element in diverse systems.

This is, of course, one of the basic assumptions of sciences; namely, that the laws governing the occurrence and distribution of an element in any system will differ when integrated into organizationally distinct systems. This is a point which, with regard to mortuary practices, must be explored in some detail.

When a cultural system is altered in its internal organization, new units of organizational relevance are generated for the human participants. The recognition of such referential units by participants in the system may prompt the act of symboling and thereby result in a proliferation of symbols within the socio-cultural system. Although all units of organizational relevance may not be recognized or considered sufficiently important to social interaction to be given symbolic recognition, we would expect that, with respect to folk classifications of role-differentiated statuses, there would be a high degree of isomorphism between the functionally differentiated status units and the symbolized social positions. We would therefore expect to discover a near identity between the number of social positions within a social organization and the number of symbols designating such units (see Service 1962).

Crucial for the considerations of mortuary rites are the number and kinds of referents given symbolic recognition. It is proposed that there are two general components of the social situation to be evaluated when attempting to understand the types of social phenomena symbolized in any given burial situation. First is what we may call, with Goodenough (1965:7) the social persona of the deceased. This is a composite of the social identities maintained in life and recognized as appropriate for consideration at death. Second is the composition and size of the social unit recognizing status responsibilities to the deceased. We would expect direct correlations between the relative rank of the social position held by the deceased and the number of persons having duty-status relationships vis-a-vis the deceased. This point was made forcefully a number of years ago by Gluckman:

a rite in its final form is the summation of the behavior of a large number of persons articulated via the deceased in different ways . . . this analysis may be applied to the variation of death ceremonies with social status. One must note, however, that there is no mean for funeral rites and variation from it, a death creates a different social situation according to the status, manner of death, of the deceased and each funeral involves the participation of different persons behaving in prescribed ways [Gluckman 1937:124].

Also, we would expect that the facets of the social persona symbolically recognized in the mortuary ritual would shift with the levels of corporate participation in the ritual, and hence vary directly with the relative rank of the social position which the deceased occupied in life.

The following contingencies have been offered by many investigators as the primary dimensions of the social persona given recognition in differential mortuary treatment: (1) age, (2) sex, (3) relative rank and distinctiveness of the social position occupied by the deceased within the social unit, and (4) the affiliation of the deceased with respect to membership segments of the broader social unit, or in the case of intersocietal symbolism, the form appropriate to the society itself.

Additionally, it was noted that peculiar circumstances surrounding the death of a person may be perceived by the remaining members of a society as substantially altering the obligations of the survivors to acknowledge the social persona of the deceased as it was defined in life. Instead, such persons are treated as "members" of a post-mortem membership unit (those killed in war, those struck by lightning, etc.) and afforded mortuary ritual appropriate to such a membership group at the expense of recognition of other components of the social identity.

The utility of any set of propositions is measurable by the degree that they serve as, or provoke,

the framing of testable hypotheses and the frequency with which these tested hypotheses are confirmed. As a preliminary test of the utility of the propositions advanced, I have deduced several rather obvious hypotheses and tested them on a body of data drawn from a sample of 40 non-state organized societies. The sample was drawn from the Human Relations Area Files.

The first two propositions to be discussed relate to what has been termed structural variability in mortuary rites. It was argued that there should be a high degree of isomorphism between (a) the complexity of the status structure in a socio-cultural system and (b) the complexity of mortuary ceremonialism as regards differential treatment of persons occupying different status positions. This proposition could not be directly tested since in *no* case was the ethnographic description adequate either for determining all the forms that mortuary ritual might take in a single society or for determining the correlates for different forms.

Nevertheless, there were generalizations available in the literature regarding the characteristics of the social persona differentiated ritually at burial. A number of descriptions of specific burial episodes abound, from which one could determine what characteristics of the deceased served as criteria for differential treatment. For this reason, each society was tabulated, not for the number of different patterns of mortuary treatment practiced, but for the number of dimensional distinctions (age, sex, social position, sub-group affiliation, cause of death, and location of death) recognized in the performance of formally differentiated mortuary practices.

For instance, we might be informed that members of different clans were buried in separate cemeteries. This would allow us to tabulate that sub-group affiliation was one dimension in terms of which mortuary distinctions were made. We might not, however, know how many clans there were or how many formally distinct patterns of mortuary ritual were practiced. In spite of this inadequacy, it was reasoned that there should be a general correlation between the number of dimensional distinctions employed and the complexity of the status structure within the society, since the combinations and permutations of multi-dimensional distinctions are greater than for single or dichotomous dimensional distinctions.

With regard to the other variable in the proposition, complexity of the status structure, the ethnographic literature was completely inadequate. I was unable to obtain adequate information of numbers of status positions or systematic information for any other measure of socio-cultural complexity. Rather than devote a great deal of time to the development of such a scale for measurement and attempt to justify its application to a diverse group of social units, I reasoned that a very crude index of complexity might be the forms of subsistence; since there exists a generally accepted correlation between forms of subsistence production and societal complexity. The sample of societies was grouped into four categories—hunters and gatherers; shifting agriculturalists; settled agriculturalists; and pastoralists. This grouping was accomplished accepting the classifications given in the “World Ethnographic Sample” (Murdock 1957) for the ethnic groups in the sample.

Information obtained from the sample of societies for these admittedly crude measurements is summarized in Table 1.

The results of the cross tabulations for subsistence categories with numbers of dimensional distinctions are given in Tables 2 and 3.

Statistically, there were no differences among hunters and gatherers, shifting agriculturalists, and pastoralists. There is a meaningful difference between these three groups and the mean value for settled agriculturalists. The greater number of dimensional distinctions employed by settled agriculturalists is viewed as evidence confirming the general proposition that there should be a direct correlation between the structural complexity of mortuary ritual and status systems within socio-cultural systems.

The second proposition which I have attempted to test also relates to the structure of mortuary ritual. It is argued that among societies of minimal complexity, the major dimensions which serve for status differentiation are based on the personal qualities of the individuals involved: age, sex, and differential capacities for performance of cultural tasks (Service 1962:54). On the other hand, among more complex socio-cultural systems status, positions may be defined in terms of more abstract characteristics related to the culturally designated and symbolized means employed for partitioning the socially organized human aggregate (see Service 1962:155). Given the proposition that distinctions made in mortuary ritual are made in terms of the social persona, the composite of

Table 1. Distribution of dimensions distinguishing status as symbolized in mortuary practices among a sample of cultures.

	<i>Cause of Death</i>	<i>Location of Death</i>	<i>Age of Deceased</i>	<i>Sex of Deceased</i>	<i>Social Position</i>	<i>Social Affiliation</i>
Name	Distinction Symbolized					
Abipon					X	Dobrizhoffer 1822:223, 268, 271, 173
Andamans			X	X	X	Radcliffe-Brown 1922:106-113; Man 1932:141-146
Aleut				X	X	Sartschew 1806:77-78; Jochelson 1925:21-25
Alor				X	X	Dubois 1944:19, 116, 160, 511
Ashanti			X	X	X	Rattray 1927:48, 70, 104, 144-145, 159-162
Barama Caribs				X		Gillen 1936:164
Bapedi			X		X	Longmore 1952:36-59
Bushman-Kau				X		Roos 1931:81-83
Bemba					X	Richards 1948:240-241
Copper Eskimo				X		Jenness 1922:92, 174-176; Rasmussen 1932:45
Formosans				X		Wiedfeldt 1919:24, 37 (H.R.A.F. reference)
Hottentot	X			X		Schapera 1933:358-363; Schultze 1907:115
Iban				X	X	Roth 1892:120-122; Howell 1908:102
Iroquois				X		Morgan 1901:116, 168
Jivaro					X	Karsten 1935:456-466
Klamath				X	X	Spier 1930:71-72
Mossi	X		X	X	X	Delobson 1932:94-95, 134-135; Mangin 1921:82-84
Mundurucu		X			X	Tocantins 1877:37; Horton 1948:279
Murngin			X			Warner 1937:33, 71, 237, 415, 432-433, 468-469
Nahane		X		X		Honigmann 1954:138-139; 1949:204-245
Nupe	X		X	X	X	Forde 1955:39-44
Nyakyusa	X			X	X	G. Wilson 1939:1-32; M. Wilson 1954:228-241
Ostyak				X		(H.R.A.F. reference)
Ollede				X		Berndt and Johnston 1942
Pomo					X	Stewart 1943:36; Loeb 1926:288; Gifford and Kroeber 1937:376
Powhatan	X		X	X	X	Binford 1964
Samoa	X		X		X	Mead 1930:98-99
Samoyed			X	X		Islavin 1847:72-73; Rae 1881:151
Siriono				X		Holmberg 1950:21, 66, 85-87
Tallensi				X		Rattray 1927:352, 371, 390-394
Tanala	X		X		X	Linton 1933:126, 170-178
Tarahumara			X	X		Bennett and Zingg 1935:236-239 363
Taureg	X			X		Lhote 1944:85, 157-158; 1947
Tikopia				X	X	Firth 1936:180; Rivers 1914:513
Tiv				X	X	Bohannon and Bohannon 1953:79, 456-461, 464
Tlingit				X	X	Krause 1956:156-159; Jones 1914:151-152
Trobriands					X	Malinowski 1929:153-154; Silas 1926:116-118
Witchita				X		Schmitt 1952
Yahgan				X		Guisinde 1937:349, 1047-1054
Yurok				X	X	Heizer and Mills 1952:34, 41, 118, 152, 175

the social identities held in life, there should be a strong correspondence between the nature of the dimensional characteristics serving as the basis for differential mortuary treatment and the expected criteria employed for status differentiation among societies arranged on a scale from simple to complex.

In the terms employed in this study, hunters and gatherers should exhibit more egalitarian

Table 2. Number of dimensional distinctions symbolized in mortuary practices summarized by subsistence category.

Dimensional distinctions	Hunters & Gatherers	Shifting agriculturalists	Settled agriculturalists	Pastoralists
Conditions of death	1	0	6	1
Location of death	1	1	0	0
Age	2	1	7	1
Sex	12	4	10	3
Social position	6	5	11	0
Social affiliation	4	3	10	1
Total cases	15	8	14	3

Table 3. Average number of dimensional distinctions obtaining by subsistence category.

Subsistence category	Average number of dimensional distinctions per category
(1) Hunters and gatherers	1.73
(2) Shifting agriculturalists	1.75
(3) Settled agriculturalists	3.14
(4) Pastoralists	1.66

systems of status grading, while among settled agriculturalists we might expect more incidences of ranked or stratified non-egalitarian systems of status grading. Consequently, we would predict that age and sex should serve more commonly as bases for mortuary distinction among hunter and gatherers; while among agriculturalists, social position, as varying independently of age and sex as well as sub-group affiliation, should more commonly serve as the basis for differential mortuary treatment.

To test this proposition, the information given in Table 1 was tabulated for the frequency of occurrence of various dimensional distinctions among the four recognized subsistence categories. The results of this tabulation are given in Table 2.

This tabulation provides some provocative material. First, there are major differences in the features of the social persona commonly recognized among the societies (falling into the 4 subsistence categories). Among hunters and gatherers, 12 of the 15 cases gave some recognition to sex differences, while only six of the cases reported distinctions in social position not reducible to sex or age differences. This observation confirms our expectations regarding the correlation between the basis of status differentiation among hunters and gatherers and the characteristic of the social persona given recognition in distinctive mortuary treatment.

Among shifting agriculturalists, however, social position was most commonly recognized, with sex and sub-group affiliation being almost as common.

The same pattern is repeated for settled agriculturalists, although conditions of death were much more frequently recognized. The striking differences noted between agriculturalists and hunters and gatherers are taken as confirmatory evidence for the proposition advanced. Certainly among the agriculturalists, there are more societies that could be classified as tribes and chiefdoms, while among the hunters and gatherers, bands and tribes of minimal complexity are more common.

The “tests,” using very crude measures and applied to a sample which cannot be considered representative of the categories employed, are nevertheless viewed as provocative and indicative of the postulated positive relationships between the structure of mortuary ceremonialism and the status structure characteristic of any given socio-cultural system. These crude confirmations are viewed as encouraging signs that there are functional determinants which limit the complexity and hence the “freedom” with which multiple forms of mortuary practices may be meaningfully employed by participants in any given social system. The correlations indicated in these preliminary tabulations put the ax to naive assumptions often made in historical interpretations; i.e., that knowledge of, or the transmission of, ideas regarding diverse forms of mortuary practice are sufficient causes for their implementation and for changes in their distributional patterns.

Turning now to a consideration of the forms of mortuary variability, recall that it was argued that there were minimally two components of the social situation to be evaluated when attempting to understand the types of social phenomena symbolized or recorded in a burial situation. The first was the social persona of the deceased; the second was the composition and size of the social aggregate recognizing status responsibilities to the deceased. It is argued here that the second component will exert determinant effects on the form which mortuary rites will take. It is argued that the locus of mortuary ritual and the degree that the actual performance of the ritual will interfere with the normal activities of the community should vary directly with the number of duty status relationships obtaining between the deceased and other members of the community (scale of identity). In turn, the social scale of the deceased should vary directly with the relative rank of the social position held by the deceased. Given this argument, it is proposed that in egalitarian societies, very young individuals should have very low rank and, hence, share duty-status relations with a very limited number of people. Older persons can be expected to occupy status positions of higher rank and, consequently, share duty-status relations with a greater number of people. We can therefore predict that age differences may be discriminated in mortuary ritual by differential placement of burial sites within the life space of the community. The choice of placement would vary with status to the degree that the performance of the ritual involves members of the community at large in the ritual activity and thereby disrupts their daily activities.

In order to test this proposition, and explore the possibility that there may be other correlations between characteristics of the social persona given recognition by differential mortuary treatment and the form of the ritual discrimination, another table was prepared making use of the same societies as tabulated in Table 1. To accomplish this, a crude nominal categorization for three variables was generated. The three variables selected were: (1) differential treatment of the body itself, (2) differential preparation of the facility in which the body was placed for disposal, and (3) differential contributions to the burial furniture placed with the body (Table 4).

For each of these variables, three nominal distinctions were made. For the first variable—treatment of the body—three distinctions were tabulated:

1. Preparation of the body: distinctions made by differential washing, and/or exhibition of the body prior to graveside ritual.
2. Treatment of the body: distinctions made by differential mummification, mutilation, cremation.
3. Disposition of the body: distinctions made by differential disposition—placed in a grave, on a scaffold, disposed of in the river, etc.

The second variable—differential preparation of the facility in which the body was placed—was also broken down into three categories:

1. Form of the facility: whether within a single class of facility, such as a sub-surface grave, there were differential formal characteristics reserved for individuals of different status, size, architectural details, variations in materials used in construction, etc.
2. Orientation of facility: whether the facility was differentially oriented with respect to some established reference point, such as cardinal directions, solstice angles, etc.
3. Location of the facility: whether the facility was differentially placed in the life space of the community, or in spatially differentiated burial locations.

For the third variable—grave furniture—two independent categories were tabulated, plus a third that included the presence of both of the other two:

1. Form of the furniture: whether distinctions were made by including different forms of grave goods.
2. Quantity of goods: whether distinctions were made solely by the differential inclusion of varying quantities of goods.
3. Form and quantity: whether distinctions were made by a simultaneous differentiation in types of included goods and in quantities of goods.

The results of this investigation are tabulated in Table 4.

A number of interesting, and I might add unsuspected, associations are suggested in the tabulations of Table 4. The first point is the degree that our predictions are verified regarding the types of accommodation expected between the level of corporate involvement characteristic of different funerals and the location employed for the disposal of the body with respect to the life

Table 4. Characteristics of the social persona recognized in the treatment of the dead.

	Condition of Death	Location of Death	Age	Sex	Social Position	Social Affiliation
<i>The Body</i>						
(1) Preparation	—	—	—	—	2	—
(2) Treatment	2	1	—	—	2	2
(3) Disposition	2	1	3	—	2	1
<i>The Grave</i>						
(4) Form	1	—	1	—	3	1
(5) Orientation	—	—	—	3	—	9
(6) Location	3	—	7	—	8	15
<i>The Furniture</i>						
(7) Form only	—	—	—	16	5	—
(8) Quantity only	—	—	—	—	9	—
(9) Form and Quantity	—	—	—	—	7	—

space of the community. In 7 out of 12 cases in which age was the feature of the social persona distinguished, differentiation was accomplished by the locations of graves of infants and children, as opposed to those of adults. Upon investigation, there appeared to be two general patterns: (1) burial of children under the house floor with adults buried in a cemetery or more public location, or (2) burial of children around the periphery of the settlement while adults may be buried at designated locations within the settlement. Both of these distributions, the cellular and the centrifugal, appear as alternative accommodations to the different levels of corporate involvement generated by the death of adults, as opposed to sub-adults, in certain types of societies. When a child dies within a society in which social position is not inherited, very few duty-status relationships outside of the immediate family are severed. The level of corporate involvement in the mortuary rites is thus largely at the familial level; the rites are performed either within the precincts of the family's "life space" or outside the life space of the wider society which therefore remains uninvolved in the mortuary rites. Upon the death of adults, their greater participation in the social life of the local group is recognized by rites conducted in a more obtrusive fashion in a location more in keeping with the scale of corporate involvement. Frequently, such burials are accompanied by processions through the life space of the wider community.

In the latter case, burial is frequently in corporate facilities or locations, or in areas of the settlement which by virtue of their placement necessarily involve the community at large in the rites. This type of spatial accommodation is noted when rulers are transported to the seats of governmental power for interment, or when central repositories for the remains of district leaders are maintained—a situation frequently noted in the cases of internally stratified societies within the sample studied.

An analogous clustering of locational distinctions is noted for differentiations with respect to sodality, or sub-group affiliation. Examination of the cases revealed that societies in which various membership groups (clans, kindreds, lineages, etc.) are present, each may maintain a distinct burial location, a cemetery or charnel house, in which members are exclusively buried or their remains stored. Another common form of differentiation noted for membership groups is the orientation of the grave. In many cases in which sodalities maintained separate cemeteries, the graves were differentially oriented with respect to topographic features of solar reference points commonly significant in the sodality origin mythology.

Differentiations related to sex were of a totally different form. Most common were differences in the types of goods disposed of with the body. These differences were related to sex-differentiated clothing, personalities, and tools which symbolized male-female division of labor. Such distinctions frequently cross-cut additional ones made with regard to other dimensions of the social persona, such as membership group affiliation, social position, etc.

The differentiations in mortuary treatment related to social position or status of the deceased exhibited the most variability in form. Similarly, they were the most complex; that is, many different forms of distinction were employed. Very high status persons may be buried in specific

locations, after elaborate and unusual preparation of the body, and accompanied with specific material symbols of office and large quantities of contributed goods. Low status persons in the same society may be differentiated by membership group affiliation and sex only, with no specific treatment related to status. In some cases, status may take precedence over sodality affiliation in mortuary symbolism, in direct proportion to the degree that the roles performed by the deceased were specifically related to the activities of the community at large, as opposed to being sub-group specific.

Regardless of the obvious complexity, the modal tendency was in the direction of differentiation by form and quantity of grave furnishings and the specificity of the location of interment. Status was most commonly symbolized by status-specific "badges" of office and by the quantities of goods contributed to the grave furniture.

Although the number of cases were few, differentiations related to the location at which death occurred (within the village, at a distant place) and the conditions of death (lightning struck, drowning, killed in war, etc.) were most commonly distinguished by differences in the treatment of the body itself and the location of the grave or repository for the remains.

This admittedly limited investigation of variability among a poorly structured sample of societies is nevertheless judged sufficient to demonstrate a number of significant points.

1. The specific dimensions of the social persona commonly given recognition in differentiated mortuary ritual vary significantly with the organizational complexity of the society as measured by different forms of subsistence practice.
2. The number of dimensions of the social persona commonly given recognition in mortuary ritual varies significantly with the organizational complexity of the society, as measured by different forms of subsistence practice.
3. The forms, which differentiations in mortuary ritual take, vary significantly with the dimensions of the social persona symbolized.

These findings permit the generalization that the form and structure which characterize the mortuary practices of any society are conditioned by the form and complexity of the organizational characteristics of the society itself. Change or variability in either form or structure must take into account the limiting or determining effects exerted on these practices by the nature of the organizational properties of the society. In no way can ideational innovations or communicated knowledge or ideas be cited as a sufficient cause for change, variability, or stability. We must first understand the forces operating on a socio-cultural system as a whole, then we may understand the causal nature of changes which we might observe within one of its component parts.

Given these findings, we may now turn to an evaluation of the assumptions which have been basic to traditional historical interpretations of cultural variability.

It was previously suggested that there were three propositions fundamental to a traditional historical interpretation. The first assumption was stated as follows:

1. *Culture is a body of custom which arises in the context of the conceptual-intellectual life of peoples and distributionally varies directly as a function of the patterns of transmission and with differential capacities or opportunities for intellectual experience.*

In contrast, I argue that culture is man's extra-somatic means of adaptation. As such, culture is partitioned into numerous systems composed of energy, matter, and information. Cultural systems have both content and organizational properties, form and structure; the structure of a system conditions the nature and variety of its formal content. Information and knowledge of alternative forms is never a sufficient cause for formal change in a cultural system. Other variables must operate to bring about structural-organizational changes. A group of people may be fully aware of numerous alternative ways of disposing of a body, but until the organizational properties of their cultural system are altered, so as to increase the number of socially relevant categories of persons, new behavioral means for symbolizing differences will not be employed.

Human populations may perceive many features of their environment and have knowledge of great ranges of human behavior, yet while possibly providing certain limits to the necessary conditions for potential change; this knowledge and perceptive insight are in no way the sufficient causes of cultural change. Forces must operate on the cultural system as a whole to alter its organizational properties before this store of knowledge can be drawn

upon for developing content elaborations, additions, and changes in the cultural system. The comparative study of forms of cultural content as a measure of variability in flow of information among and within cultural systems is misleading; structural variability alone among cultural systems strongly conditions the degree that information and knowledge will be translated into culturally organized behavior. Traditional historical interpretation ignores this systemic character of culture.

The second assumption basic to traditional historical interpretation states:

2. *The customs of a single socio-cultural tradition were originally uniform and formally distinct.*

This is the normative assumption which is disproven at every juncture, when we study the nature of variability observable within a single cultural system. Cultural systems are internally differentiated, partitioned, and segmented into component parts which are organizationally articulated into a functioning system. The degree that customs can be shown to be uniform within a cultural system is a direct measure of the degree that they are unrelated to the organizational characteristics differentiated among the components of the system. The vast majority of human behavior in the context of a cultural system is internally differentiated and non-uniformly distributed among all participants, in direct relation to the organizational complexity of the system. To assume that there should be a single mode of disposal of the dead characteristic of any socio-cultural system is to assume that the participants of the system were undifferentiated in roles, and division of labor was absent.

The corollary of this assumption is: *Multiple practices observed among any given set of socio-cultural units results from cultural mixing or hybridization in the past.* It is argued that multiple practices are to be expected given the varying degree of systemic complexity observed among socio-cultural systems. The presence of multiple practices is to be viewed as the by-product of evolutionary processes operating at the systemic level, promoting varying degrees of structural differentiation and functional specialization within the cultural system itself.

Evolutionary processes affecting the internal structure of the socio-cultural system may result in more diverse internal differentiations, which are accommodated behaviorally by the participants of the system. The forms these behavioral accommodations may take may well be conditioned by the universe of knowledge possessed by the participants in the system, as to types of accommodations employed by other peoples and by their compatibility with other groups. Nevertheless, the sharing of similar forms of behavior among independent socio-cultural systems may be the by-product of their experiencing analogous but independent evolutionary processes in a common environment of intersocietal relations, while the systems share a common store of knowledge.

This same store of knowledge may be shared with societies not undergoing evolutionary change at the structural level. Sharing similar forms could in no way be viewed as cultural "mixing" or "hybridization," for the degree of mutual "cultural influence" might be no greater among those societies undergoing change than that shared with those remaining stable. Sharing forms of cultural content may result from the mutual phasing of evolutionary processes among interacting socio-cultural systems as reasonably as it can be viewed as the by-product of their degrees of interaction.

As anthropologists, our job is to explain observed similarities in terms of the operation of cultural-evolutionary processes; it is not to make assumptions as to what similarities mean or to build "conjectural histories" (Radcliffe-Brown 1958:5) by imposing on our observations unverified interpretive principles or "laws." Traditional historical interpretations are rooted in naive assumptions regarding the processes which operate to promote change and variability in both form and structure among cultural systems.

The final assumption is summarized as follows:

3. *For practical purposes, the degree of formal similarity observed among independent socio-cultural units is a direct measure of the degree of genetic or affiliational, cultural relationship among the units compared.*

This assumption once again is grounded in the idealists' view of culture; that is, culture is a

ramifying reticulate stream of transmitted ideas and knowledge, variously crystallized at different points in space and time. This assumption ignores the possibility that there are processes selectively operating on a body of ideas or knowledge. Selective forces may favor or limit the implementation and incorporation of knowledge as the bases for action in cultural systems experiencing different systemic histories.

This assumption further presupposes that knowledge and ideas are sufficient causes of cultural change and variability. Variability is to be viewed as the by-product of interruptions in the flow of information among human populations, while change may be viewed as the result of additions to accumulated knowledge, either originating through local innovations or arising from changes in patterns of information flow among societies. It is argued here that knowledge and ideas are not sufficient causes of cultural change or variability. Evolutionary processes operating selectively on different segments of human populations result in configurations of variability and change that vary independently of the genetic origins of the populations themselves, as well as the contemporary patterns of communication and transmission of knowledge and ideas. An attempt to view all cultural variability as a measure of patterns of ideational innovation and communication ignores what we, as anthropologists, should be seeking to explain—the processes which result in the differential organization of knowledge and ideas as implemented in independent socio-cultural systems.

IMPLICATIONS OF OUR FINDINGS FOR CONTEMPORARY ARCHAEOLOGICAL RESEARCH

This survey of the treatment of mortuary data by anthropologists was undertaken to facilitate an evaluation of the scientific value of many propositions and assumptions around which much of contemporary archaeological conjecture, interpretation, and speculation regarding the past is oriented. It is hoped that I have been successful in pointing out that idealistic assumptions regarding the processes of cultural change and differentiation are inadequate; differences in ideas and knowledge, while possibly relevant as prerequisites to change and differentiations, are never sufficient causes for such changes or differentiations.

Further, variability in behavior or cultural practice are not exclusively explicable by reference to past contacts or influences among peoples; variability must be understood in terms of the organizational properties of the cultural systems themselves.

It is only after we understand the organizational properties of cultural systems that we can meaningfully make comparisons among them in terms of culture content. The contemporary archaeologist's practice of making comparisons among cultural units in terms of inventories of cultural content, while making no attempt to isolate and understand the variables affecting the frequency or distribution of content in the cultural units studied, is a fruitless and, I fear, meaningless pastime. Frequency differences in the incidence of extended burial versus flexed burial, cremation versus inhumation, mound versus cemetery burial, etc., are not measures of "popularity" or degree of intersocietal "influence." Variations among cultural units in frequencies of various forms of mortuary treatment vary in response to (a) the frequency of the character symbolized by the mortuary form in the relevant population and (b) the number and distribution of different characteristics symbolized in mortuary treatment as a function of the complexity and degree of differentiation characteristic of the relevant society.

This means that we, as archaeologists, must strive to develop methods which will permit us to explain the observations which we make on the archaeological record in terms of causative variables operative in the past. Traditional archaeologists have assumed that they know what these variables are and have proceeded to interpret the archaeological record in terms of assumed laws of cultural change and variability. I propose that we as scientists should be striving to gain sufficient understanding to enable us to formulate the laws of cultural change and evolution.

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