## SOME OF ROWE'S CONTRIBUTIONS IN THE FIELD OF ANDEAN CULTURE HISTORY

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John H. Rowe has brought fundamental changes to the field of Andean archaeology during the last twenty years. Since all of these changes involve new or different ideas concerning organization, methods of classification, theories of human behavior, the nature of justifiable inference and fruitful scholarly procedure, most of his contributions are as pertinent to all archaeological studies as they are to the Andean field. Many of his innovations are the subjects of considerable controversy because they run counter to some old established theories and some new methods.

By 1950 Rowe had come to the conclusion that many of the generalizations concerning Andean prehistory were not supported by existing evidence. This became increasingly obvious as more data were coming in. It was evident to Rowe that most of the assumptions on which the generalizations were based could not be taken for granted and needed to be questioned, or at least justified. Even the chronological framework in terms of which Andean archaeology was discussed suffered from implicit unquestioned assumptions. One of the most important services performed by Rowe has been to simplify the chronological framework by ridding it of the unnecessary and unproved preconceptions and so changing it into a viable tool for new discoveries and all kinds of inferences. He developed his ideas concerning such a relative chronology in three publications ("Cultural unity and diversification in Peruvian archaeology," 1960; "Tiempo, estilo y proceso cultural en la arqueología peruana," 1960; and "Stages and periods in archaeological interpretation," 1962, 1967).

The essence of Rowe's revision is to make is possible to talk about contemporaneity and relative time differences of different cultures

or culture phases without having to confuse these discussions with inferences concerning cultural development. The widely used system of relative chronology in Andean archaeology since the 1940's has been to attach to the archaeological divisions purporting to deal with relative time the anticipated conclusion that these periods represented stages of cultural progress which were equally applicable to all areas. Rowe argued that such a conclusion could not be assumed at the outset, but would have to be proved on the basis of independent evidence. By combining the conclusion with the chronological framework it was impossible to reach any other conclusion, or to formulate alternative hypotheses.

It will be apparent from the foregoing that Rowe's suggestion for a different chronological framework ultimately involves fundamental problems concerning theories of cultural development, scientific logic and the uses of evidence. The far reaching theoretical implications of the nature of the chronological framework used is expressed most clearly in Rowe's article of 1962 on "Stages and periods in archaeological interpretation." In it he pointed out that as soon as the chronological framework is confined simply to time and the evidence is considered on its merits, it becomes possible to see all kinds of data leading to alternative hypotheses concerning Andean cultural development.

Rowe pointed out that the idea of a simple sequence system was not new. However, he has added a significant innovation by suggesting that the chronology should be based on a single master sequence consisting of a well controlled archaeological chronology in one small area, in this case the coastal valley of Ica, Peru. This suggestion was made to produce greater precision in crossdating and in discussion concerning relative time over large areas. The use of a master sequence forces the archaeologist to be very precise in statements concerning the contemporaneity or sequence of different cultures, culture phases and cultural events, and to justify these statements by means of independent evidence.

An interest in reaching much greater precision in discussions of relative time is another one of Rowe's contributions that has exerted great influence on Andean studies. Lack of precision concerning contemporaneity or sequence of cultural events makes it impossible to make any but the most general inferences concerning culture change, which usually lead to mistaken conclusions and faulty generalizations. This lack of precision in crossdating is one of the factors that has made it possible for archaeologists to persist in clinging to a chronological scheme with built-in conclusions.

Rowe's search for greater precision also has led him to seek better methods for developing shorter and more precisely defined periods of relative time. His training as a historian has made him particularly appreciative of the fact that historical processes cannot be understood if the precise order and points of origin in which particular events take place are not known. Although the ultimate goal of absolute synchronization can perhaps never be reached, Rowe has been instrumental in developing methods that have succeeded in reducing archaeological time intervals in which changes can be perceived from something on the order of 200 to 1000 years to as little as 25 to 50 years. It is particularly significant that this refinement has been achieved through the use of archaeological evidence alone, without the aid of absolute written dates such as might be found inscribed on buildings, coins or in documents, or of written records of any kind. As Hammel points out, Rowe has achieved this increased accuracy by employing methods of style study and the serial arrangement of stylistic changes resembling some of the techniques used in the study of classic Greek pottery and the techniques of seriation first proposed by John Evans in 1849. The further development of these techniques has led to a great refinement in reliability and precision of dating in the Andean area. The method is capable of verification through independent evidence, and is applicable to most aspects of culture, including most material remains. Its effect on the possibilities of

inference concerning culture history and cultural processes cannot be overestimated. Rowe has outlined the method in his article on "Stratigraphy and seriation" (1961).

It appears to me that the differences between the kind of stylistic classification proposed by Rowe, and others in use among archaeologists, are not generally very clearly understood. Since these differences are important, I should like to make an attempt here at expressing them.

The most popular method currently in use among American archeoologists is the classification by "types," usually applied to pottery fragments. In this method, certain features that are observed to occur commonly together on fragments of pottery are considered to form a "type. The types are immutable, and make a classificatory "weld" of several independent features. This system is comparable, let us say, to the classi fication of human "races" in physical anthropology commonly used some 20 to 30 years ago. Types thus become rigid, unwieldy classificatory units which more often obscure meaningful stylistic patterns than they reveal them. A factor adding to the difficulties in this taxonomic system is that the descriptive definition of the type characteristics also sometimes leads to semantic transferences, in which, for example, all fragments with "black and white" decoration or other simple classificatory elements have been lumped regardless of other differences among them. Statistical counting of such types usually follows their definition, and inferences concerning chronological contrasts are based on relative percentages rather than on the stylistic evidence directly.

The classificatory system proposed by Rowe is a much more flexible one in which smaller independent units, i.e., "features," form the basic elements. Features can only be defined by inductive reasoning, and there can be no universal rule about what constitutes a useful feature for classificatory purposes. The co-occurrence of features on the same object is considered as a separate problem reflecting patterns

and compositions created by the makers of the objects at any given time. The features are thus in some ways comparable to sound combinations in a language, of the kind observed particularly in the study of changes in linguistic traditions. As in the corresponding linguistic studies, features are especially useful in tracing stylistic continuity and change over spans of time. The observation of the combination of features into stylistic compositions and themes by the creators of the objects at any given point of time, on the other hand, is in some ways comparable to the discovery of grammatical patterns and meaning in a particular language, so in the study of style it is necessary to discover through inductive reasoning and observation the patterns of features that were meaningful to the creators of the objects. Rowe frequently points out that a unit of contemporaneity in style, like a language, can and has to be understood in the makers' terms, in such a way that the rules governing the compositions and the meanings expressed through them are revealed. Stylistic "grammars," like linguistic ones, are subject to different kinds of regularities and patterns of change than the features of which they are composed. Since the meanings understood by the makers are important guides to the discovery of patterns of composition and change in a stylistic tradition, they must be constantly considered in style studies. For the same reason it is necessary that the remains of a style be viewed in terms of complete compositions, that is, whole objects, not just fragments. In a procedure such as this statistical counting is usually irrelevant, although it can sometimes be used in statements concerning the relative frequency of features or certain combinations of features of a style at any given point in time.

In the light of this discussion it can perhaps be more readily appreciated why the establishment of exact units of contemporaneity is all-important. In the absence of such units stylistic regularities can be only poorly understood, or they cannot be understood at all. In part evidence for contemporaneity or the lack of it can be discovered through

style studies alone, through the observation of co-occurrences of different features on the same objects. In part, however, such evidence has to be collected through the very careful observation of all kinds of archaeological associations, such as burials, caches, deposition strata and the many other kinds of associations observable among remains of human activity (cf. Rowe's articles on "Stratigraphy and seriation," 1961, and "Worsaae's Law and the use of grave lots for archaeological dating," 1962). It has been one of Rowe's great objects to help introduce more exact standards in the observation of associations in Andean archaeology, an endeavor in which he follows the remarkable pioneer lead of Junius B. Bird.

Rowe views the discovery of more exact units of contemporaneity as the first task in style studies, as in all archaeological studies. However, the methods of style studies that he uses reveal far more than simple chronological units and cannot, in fact, be discovered without taking into account other kinds of patterns of human thought and behavior, such as those revealing differneces of rank or occupation of the owners of different objects, patterns of imitation and prestige, of abrupt or gradual changes, of archaizing and nativistic revivals of various kinds, and patterns of deliberate rejection and purge of style elements. Political power, nationalism, or religious sentiments of peoples can be perceived through style studies alone under certain circumstances, and even the degree of remembrance of oral traditions can sometimes be inferred. (For an example of how the latter can be discovered, see Patricia J. Lyon 1966).

Style studies thus can be one of the most effective means leading to the discovery of patterns of human behavior and the reconstruction of particular events in the culture history of a people. They are very far from being confined to the study of material culture or simple descriptive units serving only as tools for making temporal contrasts. In fact, the system of style analysis proposed by Rowe cannot be done by

description alone. It requires simultaneously the exposition of rules of human behavior and the explanation of the processes of change. Inference and classification thus must go hand in hand and complement each other. It is impossible to classify first and make inferences later. Equally, it is useless to attempt a single classification for all purposes. Different features and patterns of features reveal answers to different questions being asked. On the other hand, the questions themselves are suggested in part by the kinds of patterns that are revealed in the process of study.

Rowe has also inculcated in his students, chiefly by example, the need for basing inferences closely on the evidence, and for formulating alternative hypotheses as a guard against entrapment in a ruling theory. He has encouraged his students to read a classic article on this subject, written in 1897 by Thomas Chrowder Chamberlin, entitled "The method of multiple working hypotheses." Furthermore, Rowe has pointed out that archaeological inference concerning human behavior is not possible without relating the archaeological observations to observations of living peoples. He has often stated that an archaeologist must also be an ethnologist, for this reason. Archaeological objects merely reflect human thought and behavior, and must be interpreted in terms of it; they are not objects of study for their own sake, and archaeology is only occasionally the study of material culture. One of the most useful publications by Rowe in this regard is his article of 1962 entitled "A social theory of cultural change," in which he discusses cultural behavior concerning imitation and prestige, based on the observations of the French sociologist Gabriel Tarde. Rowe's contribution is to have recognized its value and its relevance to archaeological analysis, and to have brought these concepts to the attention of archaeologists, who, after all, deal with cultural change far more than either sociologists or ethnologists are able to do.

Rowe's contributions to the great expansion of the possibilities of inference in the Andean field have proceeded along several different lines. Perhaps his greatest contribution lies in the area of historical research based on documentary evidence. Several of his studies of Inca culture at the time of the Spanish conquest, Inca traditions in colonial and modern times, historical dating, and the Inca language have become classics in their field (cf. "Absolute chronology in the Andean area," 1945; "Inca culture at the time of the Spanish conquest," 1946; "The distribution of Indians and Indian languages in Peru," 1947; "The kingdom of Chimor," 1948; "Sound patterns in three Inca dialects," 1950; "Colonial portraits of Inca nobles," 1951; "Eleven Inca prayers from the Zithuwa ritual," 1953; "El movimiento nacional inca del siglo XVIII," 1955; "The Incas under Spanish colonial institutions," 1957; "Inca religion," 1958; "The age grades of the Inca census," 1959; "The origins" of creator worship among the Incas," 1960; "The chronology of Inca wooden cups," 1961; "Un memorial de gobierno de los incas del año 1551," 1966; "What kind of settlement was Inca Cuzco?," 1967; and others). These historical studies form the necessary starting point for fruitful inquiry into the Andean past. Only one other anthropologist, John V. Murra, has up to now made comparable contributions along this line of inquiry. Rowe's historical analyses have greatly expanded the possibilities of interpretation of the archaeological record, especially in areas such as religion, techniques and evidence of conquest, and art history. Rowe has also done pioneer work in the archaeology of Cuzco, the site of the capital of the Inca empire, and thus the area where the archaeological remains form the major connecting point with the documentary data ("An introduction to the archaeology of Cuzco," 1944).

In addition to his historical researches and work on the archaeology of Cuzco, Rowe had made important contributions in chronological studies of more ancient remains, and in the interpretation of art history and ancient religion from archaeological remains. Particularly,

he has contributed to the study of the Chavín culture and the area of its influence. He was the first to show evidence for chronological differences in the art style of Chavín itself, as well as in the Chavín style pottery of the north coast of Peru (cf. "A seriation of Cupisnique stirrup spouts," ms.; "Chavín art; an inquiry into its form and meaning," 1962; "Form and meaning in Chavín art," 1967). His work on Chavín art is also of major significance in another respect. Rowe used the curious and unnatural patterns of associated representational features to argue that they represent an elaborate symbolism which depicts a rich mythical pantheon. Hammel points to other important features of this study.

Rowe has been deeply involved in all aspects of the chronology and culture history of the Ica valley and neighboring valleys with related traditions, since the Ica sequence is used as the master sequence for the relative chronology and therefore requires special attention. His research has encompassed the entire time span of recorded Ica culture history from preceramic times to the present. In this work he has collaborated with many different individuals, from the native Iqueño historian Alberto Casavilca Curaca who was a collector of invaluable documents of the early Colonial period and who discovered the first preceramic site at Ica, to Gabriel Escobar and Eugene A. Hammel, who did field work in modern communities of the native people of Ica (cf. Hammel 1969). Together with Patricia J. Lyon, Rowe discovered one of the earliest ceramic sites on the coast of Peru at Ica, and has made an intensive analysis, as yet unpublished, relating it to a large site with the same kinds of remains in the nearby Acari valley. An analysis of the textile remains of the Acari site has been published by Ann H. Gayton (1967). Rowe's research contributions have covered the entire subsequent time span of Ica history, including the Colonial period. His work on the colonial records of Ica and neighboring areas has been of particular importance. Although much of the work on Ica remains unpublished, several reports by Rowe, with or without the collaboration

of associates, have appeared or are in preparation ("Archaeological explorations in southern Peru, 1954-55," 1956; "La seriación cronológica de la cerámica de Paracas elaborada por Lawrence E. Dawson," 1958; "Nuevos datos relativos a la cronología del estilo Nasca," 1960; "La arqueología de Ica," 1962; "The Paracas pottery of Ica," 1964; "The role of Chincha in late pre-Spanish Peru," 1966). Additional reports have been published by his individual associates.

Beyond these research projects on the archaeology of Cuzco, Chavin and Ica, there are a great many others covering all aspects of Andean prehistory in which Rowe has collaborated in some form. Another major contribution by Rowe has been to test the prevailing theories that Andean culture history proceeded in progressive evolutionary stages, by posing questions that could be answered on the basis of the evidence. His article on "Urban settlements in ancient Peru," 1963, 1967, is an example of such a test, as Hammel points out.

In a broader sense, Rowe's contributions to the study of Andean culture history and culture history in general are based on the premise that useful working hypotheses concerning processes of culture change can be formulated only through the use of specific and detailed historical and archaeological (i.e., diachronic) data, since such data constitute the only legitimate evidence in this case, in accordance with the most basic principles governing any kind of scientific and scholarly inquiry. The only alternative procedure is to formulate theories concerning cultural development at the outset, basing them on preconceptions concerning the nature of culture and culture change, and supporting them by some diachronic data which are selected or interpreted to prove the theory. Such a procedure is self-defeating, for it can never lead to the discovery of anything that is not already assumed.

The foregoing does not by any means cover all of Rowe's contributions to the field of Andean studies, only some that I consider to be particularly far reaching in their effects. However, Rowe has also

performed a variety of essential services to the field. For example, he has written a biography of Max Uhle, the principal founder of Andean archaeology, with a discussion of his contributions (1954), he has made a survey and analysis of the problems posed by conflicting radiocarbon dates in the Andean area (1966), and he has organized an efficient system of site designations (cf. "Indicaciones para la utilización de la clave de abreviaturas y cifras usadas en el sistema Rowe...," 1965, 1966). He makes field trips to Peru and, more recently, Bolivia regularly in order to pursue new field research, to keep in touch with ongoing field work by other researchers, and to keep abreast of publications generally available only locally. Another purpose of these trips is to initiate new and promising students into Andean studies of all kinds, to keep in touch and exchange information with Peruvian and Bolivian scholars, and to be of as much assistance as possible to all individuals endeavoring to make contributions in this field.

It was part of Rowe's conception of service of this kind that he organized the Institute of Andean Studies in 1960. The principal purpose of this organization has been the publication of an annual journal on Andean archaeology, entitled Ñawpa Pacha, which Rowe edits. However, the Institute also sponsors field projects and research. The publication program, begun in 1963, has filled a particularly pressing need, for there was no other journal of this kind in existence in North America, and the publication pressure on existing journals on general anthropology and archaeology was too great to allow for the more ample specialized publication requirements brought on by the active research programs in the Andean field. The annual meetings of the Institute of Andean Studies have become an important meeting ground for a growing number of Andeanists, and the free and stimulating exchange of information during these meetings has been particularly helpful in leading to further research and fruitful collaborations.

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[EDITOR'S NOTE: For reference to publications by John H. Rowe, please see bibliography of his works in this volume.]