Aikens' Fremont Hypothesis and Use of Skeletal Material in Archaeological Interpretation

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Birds of Mexico (1953: 117) to distinguish our local turkeys from the other Mexican species, the Ocellated Turkey (Agriocharis ocellata), which, although not yet established as having been recovered from archaeological sites north of Mexico, may yet be found here. In any case, we will have occasion, as we do here, to mention the Common Turkey of the U.S. and northern Mexico, and the Ocellated Turkey of southeastern Mexico, under one publication title.

Other clarification of name problems may occasionally become necessary in order to integrate more fully archaeological and biological relationships.

Blake, Emmet Reed


Committee of the American Ornithologists' Union


NATIONAL PARK SERVICE
Globe, Arizona
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AIKENS' FREMONT HYPOTHESIS AND USE OF SKELETAL MATERIAL IN ARCHAEOLOGICAL INTERPRETATION

George J. Armelagos

ABSTRACT

The interpretation of skeletal material in the reconstruction of culture history by archaeologists and physical anthropologists is open to a number of criticisms. Problems inherent in the typological approach are discussed.

One of the problems facing the physical anthropologist and the archaeologist is the use and interpretation of skeletal material uncovered in excavations. In many instances the material from excavations has been discarded or placed in museums to be studied at some future date. The physical anthropologist, in his concern for the utilization of this material, has oversold the use of skeletal material in archaeological interpretation in implying that a study of these skeletons would provide abundant information about the culture history of an area. It is quite simple to explain cultural differences by postulating the intrusion of a new biological strain intermingling with or replacing the base population and its culture. Although it is evident that people do in fact interact and that their cultures influence one another, it is also evident that explanations of this type must be supported by evidence that indicates the changes in culture are related to changes in biology. Too frequently the physical anthropologist and the archaeologist attempt to establish these relationships without sufficient evidence.

C. Melvin Aikens (1967), in "Plains Relationships of Fremont Culture: A Hypothesis," illustrates an example of problems in the use and interpretation of skeletal material. In his support of a Plains relationship to the Fremont culture, Aikens lists 10 problems which force this reinterpretation. Two of these focus on the evidence from physical anthropology:

(1) Emerging evidence suggesting a northern origin of the Fremont folk (Reed 1966: . . . ),

and

(10) The fate of the Fremont folk after their abandonment of the Ute region. The hypothesis that they remained to become the Ute and Paiute . . . is questionable by Reed's (1966) recent study tentatively identifying the Fremont folk as Deneoids . . . of northern origin. If a stable Deneid Fremont population had drifted south to be absorbed by the Anasazi . . . it should have left a clear impression on the Anasazi Pueblo culture and southwest plateau physical stock, and no such impression has yet been noted (Aikens 1967: 199).

A number of objections can be raised concerning both points. The basis of the evidence from physical anthropology centers around a comparison of Fremont cranial types from a geographically wide area with cranial types from the Southwest (Plateau or Ashiid types) and the Deneid and Lakotid varieties. On the basis of these comparisons, Reed states the Fremont populations are "not Southwestern—not merely not Anasazi, but definitely outside the range of the Southwest Plateau or Ashiid type" (Aikens 1967: 200). As Aikens points out, Reed's hypothesis hinges on Neumann's (1952) classification, which he states could be questioned on both methodological grounds and on the small sample upon which it is based. There have been a number of criticisms of Neumann's classification which were not mentioned. For example, Bass (1964: 126), in a study of a large sample (197 adult males) from a number of Plains sites, states that neither "Neumann's Lakotid nor Deneid samples fit the cranial measurement of prehistoric Plains population as represented by our Central Plains samples."

Aikens suggests that the validity of Reed's hypothesis will require more skeletal material than is now available. This is questionable, and it is doubtful that this problem could be solved, especially if the present approach is continued. The criticisms offered reflect inherent weaknesses in a typological approach. Although the typological comparisons have been utilized in reconstructing culture history, there are serious limitations in what can be said about a population that is typologically similar. Reed states that the Fremont skeletal material resembles the Plains populations. There is no attempt to establish the degree of relationship that exists. Even if the relationship can be demonstrated to be statistically significant, what does it mean? Do two populations with morphological types in common indicate a biological relationship between populations? In many instances, the typologist is quick to point out that the similarities which he has established do not, in fact, represent a genetic relationship. For example, Hooton (1930), in his classic study of the Pecos material, defined a "Pseudo negroid" type in his sample, although Hooton pointed out that if an "undiluted" negro type were found, it would not be like the "full african negro type." In other words, there is no implication of a genetic relationship. Yet the similarities exist and must be explained. Even Hooton succumbed to what appears to be obvious by explaining the "Pseudo-
neognroids" as a result of "earlier invaders who worked their way up northwest Asia across the Bering Straits down the New World, (and) carried with them a minor infusion of negroid blood which had trickled in from the tropical parts of the Old World" (Hooton 1930: 36). In this way, the typological classification becomes an explanatory tool.

In all fairness to Aikens, the populations he has linked are not nearly so remote. Still, the genetic meaning of morphology is not clearly understood. Hunt (1959), in an important study utilizing information from a study of types in modern populations, questions their establishing biological relationships. There are statistics which can be used to measure distances between populations. Hiernaux (1964) discusses the usefulness of a number of statistics and the relationship of the results which are obtained from each of these.

The most important aspect that still must be considered is the relationship between morphological type and a specific culture. The assumption that race, language, and culture are independent seems to be disregarded. In the approach of Aikens, they are assumed to be identical since the morphological similarities in biology are used as evidence for cultural identity.

Aikens' tenth point is open for more severe criticism; as Hunt (1959: 81) points out, "Modern studies of race mixture indicate no increased metrical variability in hybrid groups."

This would seem to counter Aikens' contention that if the Fremont had been absorbed by the Anasazi, this would have left a clear impression on the Anasazi populations.

The use of typology by archaeologists considering skeletal material may represent a holdover from the use of typology in the comparison of artifacts. With more advanced techniques available in physical anthropological research, the use of the typological approach should be used with reservation. Finally, this criticism of Aikens' use of skeletal material by no means devalues the cultural factors used in establishing a Plains/Fremont relationship. Skeletal material can still be important in understanding the relationship of biology and culture, for example, the establishment of mortality patterns as related to changes in culture. At the University of Utah, studies of bone development in relationship to differences in cultures are now in progress. The information that can be obtained from studies of this nature may provide a more significant use of the skeletal material.

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DOCTRINAIRE DIFFUSIONISM AND ACTS OF FAITH

Patricia J. O'Brien

ABSTRACT

Some anthropologists have suggested prehistoric Old and New world contacts. Meggers, Evans, and Estrada are the most recent advocates, and their hypothesis of a landfall by Japanese fishermen on the coast of Ecuador seems to have been the causa belli of the attack by John Rowe on "doctrinaire diffusionism." In a response to Rowe, Jett and Carter (1966) suggest his level of absolute proof is the best, but not the only, proof. Rowe's absolute proof is best because it can be rigorously and objectively tested. But if this level of proof is not met, then the acceptance of such evidence becomes an "act of faith." The hypotheses of transoceanic contacts can not be evaluated adequately for or against until this level of proof is achieved. Until such time, the acceptance of such theories will remain "acts of faith."

THROUGH THE YEARS there have always been a number of anthropologists who have interested themselves in the question of contacts between the cultures of the New and Old worlds. The usual evidence offered has been similarities in design or form of some trait or element or in art motifs, alleged botanical transfers, or other such "proofs." The great bulk of this literature would appear not to have interested very many anthropologists because, except for a small group of devotees, most of it and its implications have been simply ignored.

The reason for this lack of interest probably lies in the assumption on the part of most American anthropologists that the American Indian brought a late Pleistocene