

PARALLAX AND THE INADEQUATELY DOCUMENTED COLLECTION: THE CASE OF LAKE MOJAVE

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The concept of "parallax" is used to explicate the importance of the differences in the points of view held by interested parties (e.g., archaeologists, artists, Native Americans) when considering deaccessioning inadequately documented archaeological collections.

INTRODUCTION

If you hold your thumb up at arm's length and look at it, blinking one eye and then the other, your thumb appears to move. That apparent movement is parallax. Parallax is a term borrowed from astronomy where it refers to the apparent displacement or the difference in apparent direction of a heavenly object as seen from two points on earth. In archaeology parallax may be defined as the apparent differences in an archaeological phenomenon as seen by two or more archaeologists due to the different positions taken by the archaeologists. Of course, the word "position" in this definition has several meanings.

Now, imagine a meeting between Robert F. Heizer and Elizabeth Crozer Campbell. They have just met at the 1964 SCA conference and are sitting in the hotel lobby talking about possible dates for the Lake Mojave culture. Heizer is in his intellectual prime. Campbell is 70 years old but still strong and vigorous, and she is becoming agitated at Heizer's unwillingness to accept the association of artifacts with late Pleistocene or early Holocene high beach lines.

Elizabeth (in a sharp loud voice reflecting both her deafness and her frustration): "What else other than a water level could cause aboriginal man to camp on the exact altitude of the high beaches of Lake Mohave enclosing an area of approximately 100 mi²? That is the proof that the human occupation dates to the time of the lake's overflow."

Heizer (in a condescending, firm voice): "As Steward said in 1937, 'Remoteness from present water is not the slightest proof that a site dates from the Pluvial period.'"

What does "remoteness from present water" have to do with the association of artifacts with ancient beaches? Nothing, and that's the point! The difference between Heizer and Campbell's views of Lake Mojave archaeology is a parallax, herein called the Lake Mojave Parallax.

THE LAKE MOJAVE PARALLAX

This imaginary exchange between Campbell and Heizer is based on statements published by Campbell and Campbell (1937:36) and Heizer (1964:121), and this exchange could have taken place in 1964.

How can parallaxes in archaeology be recognized? When archaeologists of different persuasions, observing the same archaeological phenomenon, are locked in endless debate about that phenomenon, and yet each adversary offers a coherent series of reasons for their point of view, that's parallax.

Where there is a parallax there may be more than one answer, and one or more of them may be right, or all may be wrong. I believe recognition and understanding of parallaxes is essential to resolving some disagreements that will occur in regard to deaccessioning "undocumented" collections.

I do not mean to imply that any of the archaeologists I mention in this paper would agree to the deaccessioning of the Lake Mojave collections. However, it is clear that Heizer and Steward in particular thought that Campbell did not adequately record the provenience data for the artifacts. In 1964 Heizer wrote,

... artifacts lying on the surface of these beaches may or may not date from the time the beaches were formed. Regardless of how persuasive and detailed the reasoning it is not possible to be convinced that the dry lake basins of southern California have produced datable evidence of early man or that the "cultures" or "complexes" that have been proposed are probably contemporaneous aggregates of artifacts [1964:120].

Clearly Heizer condemns the Campbell collection as having little value. It is true that Campbell never published data on the distribution of the artifacts. But neither did Rogers, whom Heizer (1964, 1965) quotes as the authority for Lake Mojave archaeology. This path takes us to the debate

on the age of the Lake Mojave sites which is discussed at length elsewhere, and is not relevant to the Lake Mojave Parallax.

The question here is: why are they disagreeing? What is the nature of the Lake Mojave parallax? The primary adversaries in this debate divide into two groups; M. J. Rogers, Frank H. H. Roberts, Julian Steward, Duncan Strong, and R. F. Heizer were all culture historical archaeologists and to some degree proponents of the direct historical approach. Except for Steward, all based their criticisms on Rogers' (1939) data from Lake Mojave. Elizabeth and William Campbell and Ernst Antevs practiced an early form of environmental archaeology. They were concerned with geological and topographical contexts of the sites. Together these archaeologists occupy the two positions of this parallax. Because most archaeologists of the culture historical position obtain their data from Rogers, I will limit comments primarily to M. J. Rogers and Elizabeth Campbell, the primary adversaries in the debate. A few comments made regarding Heizer's views are used to illustrate certain points.

M. J. Rogers' Direct Historical Approach to Archaeology

Rogers conducted his fieldwork in the Mojave River sink and adjacent areas from 1928 through 1931, and 1936 through 1938. This fieldwork reflects the strong influence ethnology had on American archaeology at this time. Rogers (1929:1) wrote that the 1928 expedition to the local prehistoric turquoise mines was undertaken with the "express purpose of determining what people were responsible for them and at what period they had been worked" (1929:1). This linking of archaeological assemblages with ethnographic peoples and defining of prehistoric "culture patterns" (1966) or "industries" (1939) based on archaeological assemblages is characteristic of Rogers' archaeology.

Rogers' 1931 cultural sequence for the Mojave sink consisted of three cultural units, identified as (1) Nevada Basket Maker, (2) Desert Mohave, and (3) Chemehuevi. In 1939, with a few adjustments, he added "Playa," "Pinto-Gypsum," and "Amargosa" to the early end of this sequence. The relative ages of these cultural patterns were determined by cross-dating based on similarity of artifact types with those of established cultural sequences elsewhere, and by limited stratigraphic evidence he found in the Mojave Sink.

At Cronese Lake Rogers dated the shell middens by cross-dating of pottery types present in them. By extension he dated the lake that produced the shells as a late lake stand. In fact Rogers believe the interpretations of the geological epochs, climatic changes, and geological strata were not established firmly enough to serve as a structure for the archaeological sequence (Rogers 1966:27).

Rogers argued that the Lake Mojave sites were only 4,000 years old, and he brought together enough evidence to convince the leading early man specialists of the day. Rogers believed the "relation of archaeological levels to water levels has little significance with regard to implying contemporaneity" (Rogers 1939:43), arguing that the artifacts on three high beach lines postdated the high lake stands and were associated with a later lake, or lakes, analogous to the historic lakes that formed in the Mojave Sink in 1916 and 1938.

Elizabeth W. Crozer Campbell's Early Environmental Archaeology

In 1930 Elizabeth Campbell was collaborating with archaeologists and geologists from the Southwest Museum and the California Institute of Technology, and soon recognized that stratified sites in the California deserts were rare. She began to seek out other ways to establish a sequential order of archaeological units. Campbell recognized that certain artifact types appeared to be associated with dry pluvial lakebeds and ancient rivers and springs far from present-day water, and she argued that this suggested great age for such assemblages.

She published her views on the relationship of humans to extinct water sources of the California deserts in *American Antiquity* (Campbell 1936). She believed a thorough study of the spatial relationship of stone artifacts to their "topographic situation" "would throw light on problems of chronology and perhaps provide approximate dates of artifact assemblages (Campbell 1936:295). The "topographic situations" and "geological formations" she referred to were those created by the changing presence of ancient lakes, rivers, and springs. Campbell was looking for sites associated with topographic features left by ancient water sources. In *The Archaeology of Pleistocene Lake Mojave*, the Campbells (1937) reviewed the geological literature on Pleistocene lakes and selected Lake Mojave for further study because "shore features remain that had been classed as ancient by competent geologists who had no knowledge of the archaeological remains" (1937:42).

The Campbell party surveyed those "shore features" with barometers to determine elevation, ascending the beaches, instruments (barometers) in hand, and "invariably as we reached the correct level [elevation], flints appeared at our feet as if by magic." These surveys were carried out over a period of several years, and they found that the

Camps extended around the lake on the old high-water line. Nothing was recovered higher than this above the old lake margin, and nothing from below. Here is a clear case of ancient people camping close to a lake that furnished them with water and probably part of their food supply. Nothing other than a water level would cause aboriginal man to camp on the

exact altitude about an area of approximately 100 square miles, proving that the human occupancy was coincident with the time of the lake's overflow. Camps remain only on those enduring shore features that record the story of an ancient lake; where the erosion of centuries has destroyed all vestige of shore, not a flint is left to tell of a vanished people [Campbell and Campbell 1937:36].

Clearly artifacts were found at the elevations of the high beach lines, but not where the beaches have been removed by erosion.

CONCLUDING REMARKS

The Lake Mojave parallax has its origins in the very different approaches employed by Campbell and Rogers in addressing the archaeological problems of the California deserts. Rogers' fieldwork resulted in a comprehensive cultural chronology for the California deserts (Rogers 1939). He was more concerned with cultural patterns and industries than with attempts at geological dating. He believed, as late as 1960, that geological dating of archaeological sites lacked adequate precision and was less important than "culture definition" (Rogers 1966:27).

Rogers collected data by which to identify or infer cultural patterns and their relative ages. He began with the search for sites and artifacts, from which he inferred cultural relationships. From that perspective the artifacts must be explained, and that was done inductively, inferring that artifacts of similar forms are a culturally determined class, and that similarity of classes of artifact from different sites are evidence of cultural relationships among those sites, and the presence of a prehistoric culture. Finally, by cross-dating, the prehistoric cultures could be arranged chronologically. This method provides a culture history with little or no environmental context, with preferred explanations derived from culture.

Campbell, on the other hand, began with questions of relationships between the evidence of prehistoric cultures and ancient water sources. She directed her attention toward dating the sites, and in doing so she hypothesized that, as the distribution of water changed in the desert, so did the distribution of human activities; therefore the old sites should be associated with old water sources, and often remote from modern water sources. The Campbells' archaeology at Pleistocene Lake Mojave was a test, and Elizabeth found supporting evidence of human occupation on the high beach lines of Lake Mojave. The Campbells briefly discussed their position in the introduction to *The Archaeology of Pleistocene Lake Mohave*.

In order to prove that a site has great age, it should be a pure site; that is, the artifacts should represent one period only, and it should be situated where the geology of the region points to antiquity. For this reason we have sought *man's ancient remains along extinct river channels and about the strand lines of playas and fossil lakes, indicated as such by beaches, terraces, spits, and wave-cut cliffs--mute testimony to a past day of moister climate* [Campbell and Campbell 1937:9, emphasis added].

They then report that by using these "geological indications" in searching for site locations, they discovered 10 such site locations, and "As all of these are now far from water, their occupants no doubt belonged to a period of greater rainfall" (Campbell and Campbell 1937:9).

That there was a parallax between these two positions, there can be no doubt. Heizer cited a much-modified version of this last sentence of the Campbells' 1937 statement as evidence in his criticism of Campbell's work.

A basic assumption made thirty years ago by the Campbells (Campbell et al., 1937:9) was that archaeological sites in the Mojave Desert region which "are now far from water, . . . [belong] to a period of greater rainfall." This proposition, it seems to me, may be true, but it also may not be true. We have reliable ethnographic testimony (at times backed up by related archaeological evidence) that aboriginal campsites were established many miles from the nearest water [Heizer 1965:127].

Heizer did not see the whole picture. It is clear that the 10 sites' locations were selected because of their association with "geological indications" of extinct lakes, streams, or springs, and in addition were remote from present-day water. Heizer has addressed only half the problem, neglecting to address the association of artifacts and ancient beaches. Heizer could not have intended his response to be so limited. Heizer did not see the evidence because of parallax.

How is this relevant to undocumented collections? There is a kind of parallax in archaeology as in life that causes us not to perceive the world as it is. And different archaeologists perceive the archaeological phenomenon in different ways. So we ask: Should an undocumented whole pot collection from Anza-Borrego Desert State Park be deaccessioned? Probably not; in such a collection there are many valuable data applicable in studies of the technology of making pottery and in stylistic variability. Virtually every kind of undocumented collection consisting of a large number of artifacts from a known region contains data relevant to some sort of scientific study. At some point, when a collection consists of artifacts from unknown sites from a general area of southern California or the Midwest, it may have very little

or no archaeological value. There are research questions which may be addressed by the data inherent in the artifact class itself and not dependent on documentation. Questions of relationships between the material from which the artifact is made and the methods of manufacture may serve as an example.

Archaeologists of today must recognize the significance of parallax, the differences in point of view. For even if the collection has no archaeological value, we must still ask: Do these artifacts have value as art, or as sacred objects, or for teaching traditional culture?

Archaeologists are certainly aware that new methods and techniques will be developed that will provide new parallaxes, and suddenly the undocumented, inherent characteristic of an item will become critical to a new view of the past. Radiocarbon dating is an example of such a development. Those who had retained and in some way documented charcoal samples suddenly had a means of dating the prehistoric past.

The artifacts that archaeologists have excavated are certainly worth the money that has been spent in retrieving them from the ground. Although there are old collections that are poorly documented or apparently undocumented, they have served as the bases for earlier reports. These are undocumented collections that are prime examples of certain prehistoric periods. These have historic value in understanding the thinking of earlier archaeologists, how and why changes in archaeology occurred.

Let us be aware of the multiple facets of the data, the multiple points of view that characterize modern archaeology. Let us be aware of the changing points of view and the changing values of the archaeological collections. Let us be aware that all archaeological collections, documented or not, are the basis for understanding the past, and that the removal or loss of any part of these collections diminishes our ability to understand the past.

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