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ANASAZI CANNIBALISM AT MANCOS CANYON: A PROGRESS REPORT

ABSTRACT: *The archaeological site of Mancos Canyon 5MTUMR 2346 has yielded an extensive collection of fragmentary human bones representing over two dozen individuals ranging in age from infant to old adult. This skeletal sample has been studied by Nickens who concluded that cannibalism was practiced at the site some 900 years ago. Further analysis has confirmed this conclusion and led to the discovery of a variety of damage patterns on bones. These patterns have been found on nearly twenty other collections from Anasazi contexts across the American Southwest. The patterns may prove useful in diagnosing cannibalism for even more ancient collections of hominid remains such as the one from Krapina. This is a progress report on the Mancos analysis.*

KEY WORDS: *Cannibalism — American Southwest — Anasazi — Osteology.*

BACKGROUND

In his 1979 book, *The Man-eating Myth: Anthropology and Anthropophagy*, William Arens criticizes the way that anthropologists have treated the practice of cannibalism. The message of the book has been taken by many as a denial of cannibalism as a custom but this was not Aren's main intent. Rather, the book is more concerned with the standards of evidence in anthropology than with the existence of cannibalism. Arens finds that the evidence for widespread, non-survival cannibalism is not good. He concludes that anthropologists have been less than critical in their acceptance of ethnohistorical accounts of cannibalism.

While his focus is mainly on ethnographic accounts of cannibalism, Arens does address the issue of cannibalism in the archaeological record. His review is not meant to be comprehensive, but it does admit that the case for prehistoric cannibalism in the American Southwest is one of the better ones in archaeology. Arens discusses only the Flinn *et al.* (1976) work on the Burnt Mesa Anasazi site and concludes that peculiar circumstances surrounded the find. The Burnt Mesa remains were interpreted by the principal investigators,

Flinn, Turner and Brew, as evidence of cannibalism. Arens goes on to cite Hartman (1975) in his contention that there is an "absence of a cultural pattern" in reports of cannibalism in North American archaeology.

A recent announcement by Villa and colleagues (Villa *et al.* 1986) of evidence for prehistoric cannibalism in the French Neolithic refers to the work of Arens in some detail. Villa *et al.* however, do not mention the archaeological evidence of cannibalism in the American Southwest. Building on the work of Turner (1983), my recent review of the literature on human osteology and archaeology in the Four Corners region of the American Southwest (where the states of Arizona, Utah, Colorado, and New Mexico meet) suggests that there are, contrary to the conclusions of Arens, patterns in a series of nearly 20 discoveries of broken and burned Anasazi remains made at Southwestern archaeological sites during this century. The patterns of bone fracture, cutmarks, percussion marks, burning, element representation, and disposal are consistent with an interpretation of these assemblages as evidence of cannibalism. I report here on the progress made in analyzing one such assemblage from Mancos Canyon in Southwestern Colorado.

THE MANCOS CANYON ASSEMBLAGE

The Mancos Canyon assemblage was recovered during archaeological excavation of a small unit pueblo in the Mancos Canyon, just south of Mesa Verde National Park in the Four Corners area. Broken, scattered human remains were found on the floor of several rooms in the pueblo. Nickens (1975) undertook the first analysis of this material, concluding on the basis of breakage, cutmarks and burning on the bones that the assemblage was evidence most consistent with an interpretation of cannibalism. Turner, in his 1983 review of cannibalism in the American Southwest, cites the Nickens study as one of several Anasazi occurrences that share the following properties: short-term deposition, good bone preservation, high element loss, disarticulation, absence of vertebrae, massive perimortem breakage by percussion, universal head, face and long bone breakage, burning on up to 35 percent of



FIGURE 1. A. Cutmarks on a cranial fragment from Leroux wash, Arizona. Similar marks are seen on the Mancos collection.

B. Percussion damage to the frontal bone of two specimens from Polacca Wash. Similar fracture patterns are evident on the Mancos collection. Patterns of damage described by Turner (1983) are remarkable for their consistency across geographic space and time in the American Southwest.

elements, cutmarks on up to five percent of elements, animal gnawing on a small percentage of elements, a cutting/breaking/burning/gnawing damage sequence, and a lack of bone tools.

THE ANALYSIS

The 5MTUMR 2346 Mancos skeletal collection consists of over two-thousand fragments of human bone that represent more than two dozen individuals who perished about 900 years ago. The bone itself is extremely well-preserved and exhibits clear traces of cutmarks, percussion and burning. There is some root damage but carnivore alteration is lacking. Provenance for each specimen within the pueblo is available. Excavation of the Mancos Canyon pueblo was complete. The resulting bone assemblage is one of the best available for intensive analysis.

The analysis of a single-taxon assemblage like that from Mancos Canyon site 5MTUMR 2346 calls for the joint application of physical anthropological, forensic, and archaeological faunal analytical techniques. In my analysis, each specimen was given an individual number and then identified to element category. After this identification, each specimen was maximally refitted against all other specimens in that element category. This conjoining exercise permitted assessment of the resolution and integrity of the assemblage. Over one-quarter of the total specimens in the assemblage participated in joins, some of them across rooms. The conjoining exercise also resulted in an enhanced understanding of the percussion activities that led to the fragmentation of the assemblage. For example, for the larger elements like femur and tibia, it was possible to reconstruct whole shafts but the articular ends were almost always absent.

After the conjoining exercise was completed, the minimum number of individuals represented by the assemblage was calculated at 29 people. A paleopathological assessment of the collection showed a fairly high incidence of *cribra orbitalia*, a paleopathology common in the Southwest. Trauma by percussion, cutting and burning was assessed for each element category after conjoining in order to gain an understanding of the relationship between this trauma and the overlying soft tissues, including muscles, ligaments, and skin. This part of the analysis led to insights about the disarticulation sequence, the fragmentation sequence, and the burning sequence. It is evident, for example, that the skulls were scalped and roasted before fragmentation by percussion to the ectocranial surface of the vault.

The analysis of the maximally-conjoined assemblage was followed by an analysis more equivalent to that performed by faunal analysts on vertebrate faunal assemblages in archaeology. Here, all of the conjoins were dismantled and quantitative data on all kinds of trauma were compiled for comparison with similar results from archaeological faunal remains from a variety of contexts.

RESULTS

Results of the Mancos analysis show a pattern of trauma that apparently resulted from the deliberate extraction of nutritive value from the skeleton.

After skinning and disarticulation, brain and marrow were the tissue targets of deliberate bone

destruction. Similar patterns are ubiquitous in archaeological faunal remains where dietary exploitation is the standard interpretation. An interpretation of cannibalism in the case of the Mancos assemblage therefore seems warranted.

The issue of the cultural significance and ultimate cause for the observed patterns of osteological trauma on the Mancos assemblage cannot be answered from the analysis described above. It is evident, however, that the patterns observed by Turner (1983) and confirmed by this study are significant indicators of prehistoric behavior. It is only through a careful and systematic study of the phenomenon across space and through time that cannibalism among the Anasazi can be more fully understood.

My study of the Mancos Canyon assemblage was undertaken in 1985 to provide a background for the study of trauma to fossil hominid remains. Lacking ethnographic details on bone modification during cannibalism and unable to undertake ethnoarchaeological research on this phenomenon, I turned to the material from the American Southwest to gain experience in working with human bone that had been modified by human agents. Since this study was undertaken, some authors have examined the fossils from sites such as Krapina and concluded that evidence of cannibalism was lacking in that Neanderthal assemblage (Trinkaus, 1985; Russell, 1987a,b). These conclusions run counter to those of Ullrich (1986). By working with very large samples of humanly-modified skeletal material from recent prehistoric contexts, the investigation of fossil remains is facilitated. Some methods developed for study of the Mancos Canyon skeletal remains have already been proven very useful when applied to the Krapina, Vindija, and other fossil hominid samples. The results of our analysis of the fossils will be reported elsewhere. The completion and full publication of the Mancos Canyon analysis will provide a foundation from which to more effectively approach the fossil record.

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NOTE

For a full account of the Mancos study, see White T. D., 1992: *Prehistoric Cannibalism at Mancos 5MTUMR - 2346*. Princeton: Princeton University Press.

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