

VIII. CULTURAL FEATURE ANALYSIS

Three types of cultural features were recognized at the Hinojosa site: bone clusters, rock/charcoal clusters, and living surfaces. All three feature types are interpreted as occupational features. Most of the features were recovered from the main excavation block (Wagon Trail Area). Feature exposure and analysis were emphasized in the research design and during the project. Discrete cultural features, such as the features from 41 JW 8, are thought to represent activity loci during discrete occupational episodes. Thus, the careful exposure and analysis of these features can provide behavioral inferences concerning the activities resulting in the cultural features.

Nine features were formally recorded and assigned feature numbers in the field. Two additional features were designated as formal features and assigned feature numbers during the analysis. All features were carefully exposed, mapped, and photographed in the field. Matrix samples, axial interval samples, and charcoal samples were collected from some features as noted. All radiocarbon assays from the 1981 season were determined from feature charcoal. Each feature is described in detail. A summary of the interpretations and special studies is provided with each feature description. Further details are discussed in appropriate sections of this report.

BONE CLUSTERS

Five discrete bone clusters (recorded as four features) were recorded during the 1981 season. A bone cluster is simply a distinct concentration of bone. The bone clusters at 41 JW 8 were very well-preserved concentrations, tightly clustered, and with little or no evidence of surface exposure. All of the bone clusters are interpreted as discard piles of bone refuse disposed of after processing and/or meat consumption. The "bone bed" uncovered at 41 JW 8 in 1975 (Hester 1977) appears to have been a large bone cluster.

This author strongly believes that the bone clusters at 41 JW 8 are the result of efficient butchering and processing techniques used by the former inhabitants of the site. The faunal consultant (Steele) has cautioned the author that the subject of bone modification has recently received considerable attention (Binford 1981). The fact that the bones are severely fragmented does not necessarily mean that the animals were butchered and that the bones were efficiently processed by the inhabitants. Other agents, such as animal scavengers, rodents, natural weathering, and ungulate traffic can also be responsible for faunal fragmentation. Thus the mechanisms of breakage cannot be determined without careful taphonomic analysis that is beyond the scope of this project. Nonetheless, the discrete nature of the faunal clusters, the extreme fragmentation of almost all bones containing marrow, the cut marks noted on some bones, the occurrence of diverse species within discrete deposits, and the heavy burning of some bone are interpreted by this author as being the product of an efficient system of animal butchering, bone processing, and bone disposal.

It should also be noted that the well-preserved nature of the bone found within the bone clusters does not necessarily demonstrate rapid burial. Steele (personal communication) pointed out that bone experts will not make such an evaluation based on bone condition without an analysis of the depositional environment of the fauna. This author has observed weathered bone in southern Texas on many different occasions. Based on these observations, the bones surviving on the surface for a period of several months to several years are almost always severely sun bleached, cracked, and/or animal gnawed. Modern discrete bone clusters (dead animals) are usually disarticulated and scattered within a few weeks. The 41 JW 8 bone clusters showed little or no evidence of such exposure and scattering. Hence, it is hypothesized that the Hinojosa site bone clusters are well preserved in part due to being rapidly buried. This hypothesis awaits confirmation by a regional taphonomic study.

Feature Analysis 197

ROCK/CHARCOAL FEATURES

Five discrete rock/charcoal features were recorded during the 1981 season. A rock/charcoal feature is a distinct concentration of burned rock (calcium carbonate concretions) and/or charcoal. These features obviously represent fire-related activities such as cooking hearths, warmth hearths, or hearth discard piles. Often associated with these features are faunal and artifactual materials. Charcoal from three of these features provided ample material for the radiocarbon assays.

LIVING SURFACES

A living surface is a discrete surface with an accumulation of occupational debris. The surface may be recognized stratigraphically as a physical interface or by the exposure of associated artifactual material lying on a common surface. At the Hinojosa site, the living surfaces were recognized by large accumulations of artifactual material vertically clustered on more or less level surfaces. The actual surfaces were not stratigraphically distinct except for the increased cultural material.

Two living surfaces were recognized. Both were only partially exposed as it was observed that material continued into the excavation unit walls. The presence of small intact clusters of cultural material and well-preserved fragile artifacts, such as bone tools and shell ornaments, suggests that the living surfaces were buried fairly rapidly. Both living surfaces were exposed below the plow zone. The presence of large quantities of highly fragmented cultural material in the upper levels in several areas of the site suggests that later living surfaces have been disturbed.

Feature Analysis 211

The living surfaces were recognized at 41 JW 8 when concentrated cultural materials were exposed *in situ* in several excavation units at approximately the same elevation. An effort was made to record as much of the material in place as possible. Often, however, the concentrations were so dense that isolated bone fragments, snails, flakes, and burned rock were removed in order to allow exposure of clustered materials, identifiable bone, and diagnostic artifacts. Thus, the living surface illustrations and inventories are biased toward these materials. This bias can be partially overcome by looking at the cultural material frequencies for the unit-levels containing the living surfaces. It should be noted that without *in situ* exposure, living surfaces would show up as horizons (horizontal concentrations) in cultural material distributions.

The excavation of large contiguous blocks is necessary to recognize and expose living surfaces. The excavation areas at 41 JW 8 were large enough to detect two living surfaces; however, much larger excavations would be necessary to fully expose these "macro" features. Recent excavations at the Rowe Valley site in Williamson County by the Texas Archeological Society have demonstrated the value of exposing very large site areas (Prewitt 1982, 1983, 1984). Thus, it must be recognized that the interpretation of a living surface is limited by the lack of knowledge of the actual size of the feature and the surrounding and related "macro" and "micro" features.