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1986

The Clemente and Herminia Hinojosa Site, 41 JW 8: A Toyah Horizon Campsite in Southern Texas. Center for Archaeological Research, The University of Texas at San Antonio, Special Report 18. p 201-206

Feature Analysis 201

FEATURE 6

<u>Provenience</u>: N106 E97 and N106 E96, Levels 2 and 3, 99.96 (detection surface) to 99.88 (bottom of lowest plotted artifact); small pit below main feature extends to a depth of 99.81.

<u>Dimensions</u>: Approximately 80 cm (N-S) \times 130 cm (E-W).

Associations: Numerous artifacts were directly associated with Feature 6: an arrow point fragment, two body sherds, an end scraper, two biface fragments, one trimmed tertiary flake, two modified secondary flakes, a modified decorticate chip, and various faunal elements. The 17 items that were piece plotted in Feature 6 are listed in Table 25 and shown in Figure 21. Additional flakes, sherds, and arrow points were recovered at the same elevation range in close association with the feature. Feature 6 was located on the east edge of Feature 11, the apparent living surface that was exposed in the western half of the Wagon Trail excavation area. Features 2A, 2B, and 3 were located just east of Feature 6 at lower depths. Feature 10 was located just south of Feature 6 and was first detected at about the same elevation.

Radiocarbon Assays: UGa-4541 (525 \pm 65), TX-4653 (970 \pm 60), TX-4886 (1090 \pm 110), UGa-5289 (655 \pm 70), and UGa-5280 (930 \pm 70); all are uncorrected assays. See Section VII (Radiocarbon Assays) for a detailed discussion of these widely varying assays.

<u>Special Sampling</u>: Eleven matrix samples and seven charcoal samples were collected from various portions of the feature. In lieu of an axial interval sampling (due to the fact that much of the surrounding excavation area was already excavated below the feature level), a series of samples was collected along a grid north-south transect (grid line E97). Phosphate testing of the various matrix areas of Feature 6 showed comparatively high readings, ranging from 649 to 1597 ppm.

<u>Description</u>: A complicated fire feature, Feature 6 was composed of overlapping charcoal, **Rabdotus** snail shells, ash, baked clay, and charcoal-stained soil concentrations within and around a roughly circular cluster of burned rocks (Fig. 21). In addition, a small pit extended below the main feature level on the northeast edge of the feature.

Feature 6 was exposed, excavated, and removed during a one-month period (November 18-December 18). This rather lengthy excavation period was due to the following: (1) the feature was extended into two units and four levels; (2) we wanted to expose the entire western half of the Wagon Trail Area to the same level (thus we were able to confidently tie in Feature 6 with Feature 11); (3) we wanted to leave the feature exposed for the principal investigator, NPS, IAS-D and SCS representatives, and the news media to see;

| Lot Number | Item Number | Elevation | Identification |
|-------------|-------------|-----------|---------------------------------|
| 39 7 | 1 | 99.91 | modified secondary flake (MD2) |
| 397 | | 99.94 | end scraper (U1) |
| 397 | 2 3 | 99.94 | trimmed tertiary flake (MD1) |
| 397 | 4 | 99.94 | body sherd |
| 397 | 5 | 99.94 | modified decorticate chip (MD2) |
| 397 | 6 | 99.91 | biface fragment (FB3) |
| 397 | 7 | 99.92 | modified secondary flake (MD2) |
| 397 | 8 | 99.94 | biface proximal fragment (FB1) |
| 397 | 9 | 99.88 | body sherd |
| 397 | 10 | 99.90 | arrow point distal fragment (A4 |
| 397 | 11 | 99.93 | bison-sized long bone fragment |
| 397 | 12 | 99.90 | mammal caudal vertebra |
| 397 | 13 | 99.88 | voleright mandible |
| 397 | 14 | 99.90 | turtle plastron fragment |
| 397 | 15 | 99.91 | deer thoracic vertebrae (2) |
| 397 | 16 | 99.93 | mammal vertebral fragment |
| 397 | 17 | 99.91 | deer ulna |

TABLE 25. PLOTTED ITEMS ASSOCIATED WITH FEATURE 6

Note: See Figure 21 for horizontal location of cultural materials plotted by item number.

and (4) the careful exposure and recording of this complicated feature was very time consuming. During most of the month only the upper surface of the feature was exposed, and this was covered by plastic except when work on the feature was actively taking place. The plastic kept the moisture content of the feature relatively constant.

As the feature was exposed and excavated, a number of more-or-less discrete concentrations were discerned. These were excavated, collected, and sampled separately as matrix areas A-F. Materials from mixed uncertain contexts were bagged separately. Most of the six matrix areas appeared to be separate depositions, although some were arbitrarily divided to look for differences in matrix composition across the feature. Each matrix area is described next.

Matrix area A was a lobe (irregular mass protruding out from the larger matrix area C/E on the grid east side of the rock cluster) located on the grid southeastern portion of the feature. This area consisted of charcoalstained soil mixed with ash, baked clay fragments, and large chunks of charcoal. Several of the charcoal chunks were incompletely oxidized, suggesting that the fire was extinguished rather than allowed to burn down to

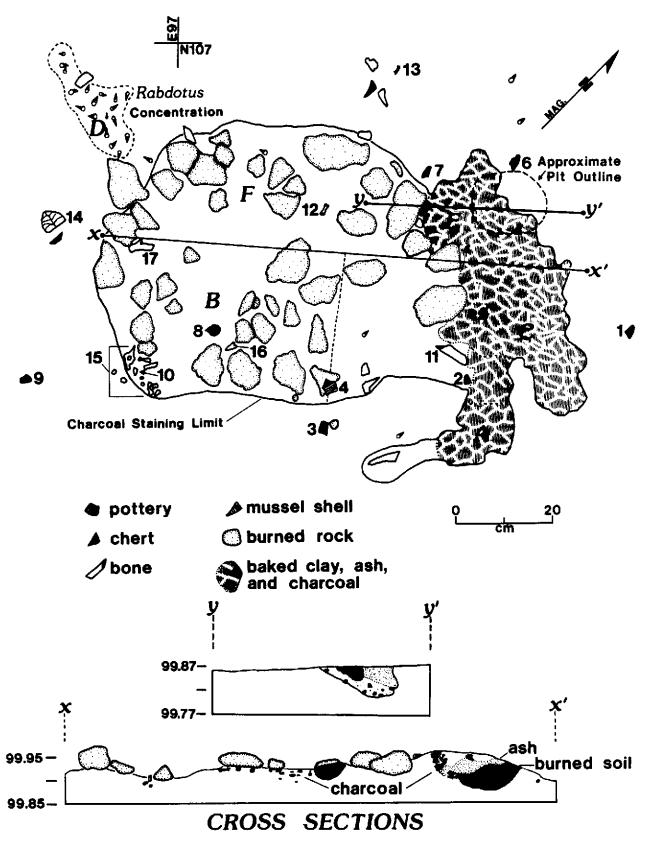


Figure 21. Plan Map and Profile of Feature 6. Numbered items are listed in Table 25.

a bed of ashes. The fact that area A extended out from the central feature area suggests that it represents a feature clean-out episode.

Matrix area B consisted of fill in the southern half of the feature directly under and between the rock cluster. The area B matrix contained considerable quantities of charcoal, most located in a thin layer directly beneath the rocks. Plotted items 4, 8, 10, and 15-17 were located in area B. Matrix areas B and F were arbitrarily divided at the first cross section line (x-x'; Fig. 21).

Matrix area C was located in the southern half of the large feature fill lobe, east of the rock cluster. The first cross section line divides areas C and E arbitrarily. Areas C and E are distinguished from the other matrix areas, both by location and a difference in fill characteristics. The fill of the C/E area had a much greater ash and baked clay content than any other area of Feature 6. Numerous chunks of charcoal were also recovered. Plotted item 5 was found within area C.

Matrix area D was the lobe of concentrated **Rabdotus** snails that extended to the grid northwest from the rock cluster. Very little charcoal or ash was recovered from this lobe.

Matrix area E was located in the northern half of the feature area, east of the rock cluster (see the area C discussion). The pit feature, discussed later, originated within or was covered by area E. Area E had particularly noticeable concentrations of ash and crumbly yellow clay on the northern edge of the area.

The final matrix area, F, was the northern counterpart to area B. Area F contained particularly large quantities of charcoal and very dark charcoal-stained soil but very little baked clay and no visible ash. It is significant to note that many of the charcoal fragments in area F appeared to be from finger-sized sticks. These fragments were concentrated directly beneath the rocks—as if the rocks were placed atop a small stick fire and not disturbed after the final usage.

The pit feature was filled with ash and charcoal and measured approximately 12 cm (N-S) \times 16 cm (E-W). The pit was not recognized until the feature was partially excavated and cross sectioned, and the upper materials had been removed. The first cross section (Fig. 20, x-x') was grid south of the pit and did not intersect the pit. The pit was discovered during the final removal of the level containing the lower portion of the grid northern feature area (see Fig. 20,y-y' for a view of the second cross section showing the pit). For this reason the elevation of the original surface of the pit is not known, although it clearly occurred within the main feature level (approximately 99.96-99.88). The bottom of the pit was at 99.81, and the pit was at least 7 cm in depth. In profile the Feature 6 pit is very similar to the Feature 5 pit. Both have asymmetrical cross sections appearing undercut on one side and gradually sloping on the other.

The rock cluster around which the other aspects of the feature were arranged contained about 20-30 burned rock fragments at least 5 cm in maximum diameter. All of the rock appeared to be either weathered, low grade (soft)

limestone nodules or calcium carbonate concretions weathered prior to use. This description is typical of the eroding, calcareous material found on the slope of the ridge across the creek. The rock was heavily burned, and some were fragmented in situ (presumably due to thermal shock). The rocks were arranged in an irregular circular pattern with more in the outer ring than the central area of the cluster. All rocks appeared to lie on the same surface, at about 99.93-99.90.

Charred botanical remains were identified from two general matrix samples collected from the feature (mixed matrix areas). Charred Chenopodium fruits and Asteraceae achenes (an achene is a small, dry, hard fruit) were identified from both samples. One sample also had an Oxalis fruit which may be modern. These plant remains are all edible fruits, although they could have been introduced as accidently charred material.

<u>Interpretation</u>: Feature 6 is a very interesting example of a hearth feature evidencing several reuse episodes. The recovered faunal and botanical materials associated with the various feature matrix areas clearly indicate that Feature 6 was a cooking hearth. We can infer that bison, deer, turtle, **Rabdotus** land snails, and several plant fruits were consumed in the vicinity of and possibly cooked in Feature 6.

The two pottery fragments recovered from in and around the feature are some of the largest and best-preserved sherds recovered from the site. Both show carbonization on the exterior surface. This can be interpreted as resulting from the breakage of a cooking vessel in the feature vicinity. Two lines of evidence support this possibility. First, the presence of uncharred bone and snails on top of and adjacent to the feature suggests that some food items were not directly roasted in the fire. The proposed mechanism for cooking food without direct roasting is by boiling within the ceramic vessel represented by the sherds. The second supporting observation is the placement of rocks in a small cluster with a small central rock-free opening. It will be recalled that the rocks were placed directly on top of the charcoal and that some of the charcoal under the rocks was incompletely carbonized, as if the rocks partially extinguished the charcoal directly underneath. Therefore, the rock cluster may have functioned as a cooking stand.

Another interesting aspect of Feature 6 is the lobes of charred soil, ash, baked clay, and charcoal that extended to the east of the rock cluster. These appear disturbed in contrast to the layered appearance of the matrix and rocks within the rock cluster. These lobes (matrix areas A, C, and E) are interpretated as hearth clean-out deposits representing earlier episodes of feature use. As many as three clean-out episodes may be evidenced by the extent of the lobes and by the difference in composition (especially between areas A and C/E). The burned rocks are both thoroughly burned and fragmented which may result from the reuse of the same rocks through several use episodes. If the rocks were used only for the episode represented by the rock cluster then the bottoms of the rocks should have been more heavily burned than the tops, which they were not.

It is interesting to note that the phosphate readings from the matrix areas (arbitrarily divided) are similar and also different from the other areas. The phosphate sample from matrix area B (868 ppm) is comparable to that from

area F (649 ppm) and very different from the matrix area C (1493 ppm) and E (1529 and 1597 ppm) readings. These differences lend support to the separation of the major lobes.

The small pit beneath fill lobe E provides possible evidence of an additional use episode. During one of the feature use episodes, perhaps a secondary fire was built within the pit and produced the fill lobe which covered the pit.

The **Rabdotus** concentration (area D) on the northwest side of the rock cluster is interpreted as a refuse dump--perhaps the remains of a pot of land snail soup.

In summary, Feature 6 is interpreted as an extraordinarily well-preserved cooking feature that evidences repeated reuse of the same hearth. It is argued that meat, snails, and fruits from several species were cooked and consumed in and around the hearth. The large amount of charcoal, ash, baked clay, charcoal-stained soil, and fire-reddened soil in and around the feature attests to the intensity of use in this area. The fill lobes and the pit evidence several use episodes of the feature. The presence of lithic tools, particularly the modified and trimmed flakes and the end scraper, may suggest that faunal processing took place around the feature. However, the fact that most of these lithic tools were found on top of the fill may argue that they were discarded after the final use of the hearth. It is suggested that Feature 6 may be functionally associated with one or several of the nearby bone clusters, Features 2A, 2B, 3, and 10. The various aspects of Feature 6, combined with the functional association of one or more of the bone clusters, form an almost complete sequence of prehistoric behavior.

FEATURE 8

<u>Provenience</u>: Feature 8 was centered in N110 E101 and extended slightly west into N110 E100, south into N108 E100, southeast into N109 E102, and east into N110 E102. The feature was exposed in Levels 2 and 3 of these site units between an elevation of 99.87 and 99.76.

<u>Dimensions</u>: The charcoal occurred within an irregular oval area measuring roughly 1.45 m (N-S) \times 1.2 m (E-W). The bone covered a larger area, 2.3 m (E-W) \times 1.5 m (N-S). The rock clusters measured roughly 65 cm (E-W) \times 55 cm (N-S) (grid northeast cluster) and 70 cm (NE-SW) \times 35 cm (NW-SE).

Associations: Thirty-six items of cultural material in association with Feature 8 were piece plotted. These items include a **Perdiz** arrow point and many faunal elements (see Table 26 and Figure 22). In addition to the plotted items, a number of other lithic, ceramic, and faunal materials were recovered from within and adjacent to the feature.

Radiocarbon Assays: UGa-4540 (1290 \pm 65), UGa-5290 (380 \pm 185), Tx-4654 (500 \pm 60), Tx-4887 (700 \pm 80); all are uncorrected and uncalibrated assays. See Section VII (Radiocarbon Assays) for a detailed discussion of the varying results of these radiocarbon assays.