

JOHN W. HOOPES

## ABSTRACT

*Testing and excavation at Dos Armadillos (G-154), situated on a small bench above the Río Santa Rosa, revealed evidence of an indigenous habitation dating to the Tilarán Phase (A.D. 1000-1500). While no structural remains were recovered, a large, horizontal scatter of domestic pottery, lithic debris, groundstone artifacts, subsistence remains, and carbonized wood suggested the dwelling of a small family group with an agricultural subsistence base. Investigations at site G-153 yielded pottery and lithic debitage from a Silencio Phase (A.D. 600-1000) habitation.*

*John W. Hoopes  
Harvard University*

## SITE G-154

The Dos Armadillos site (UTM 355 x 716 on the Tilarán 1:50,000 topographic map at an elevation of approximately 850 m) was located during the posthole survey and testing phase of the 1984 field season of the Proyecto Prehistórico Arenal. Archaeologists Bradley and Mueller selected two small benches to the south of the Río Santa Rosa for testing on the grounds that each was large enough to support the presence of a habitation at a convenient distance from a fresh water source. The area tested, which is located on the Finca El Silencio of Dr. Luis Jimenez Corneli, was also selected because it fell within the region of the Silencio stratigraphic sequence (Appendix A; Article 3). Initial clearing of an eroded cut near the Río Santa Rosa confirmed the presence of the tephra sequence, as did posthole excavations. Because one of the principal objectives of the project was to relate archaeological remains to the sequence of eruptions of Arenal Volcano, the benches posed a promising locale for investigation.

## TESTING

Fifteen soundings were made with the posthole digger at G-154. Of these, eight provided no evidence of cultural activity. However, seven yielded sufficient material to warrant further excavation at the site. In Test 4, small pieces of charcoal were recovered from Unit 30 in the Silencio stratigraphic sequence (Appendix A, Article 3). In Tests 5, 7, 8, and 9, fragmented monochrome sherds were found in Unit 30 at depths of between 50-70 cm below the modern surface. In Test 9, one sherd was found at a depth of 145 cm; however, Units 40 and 41 were not present, and the stratigraphic association of this sherd is uncertain. All soundings were excavated to a depth of 150 cm, and three approached 2 m in depth below the modern surface.

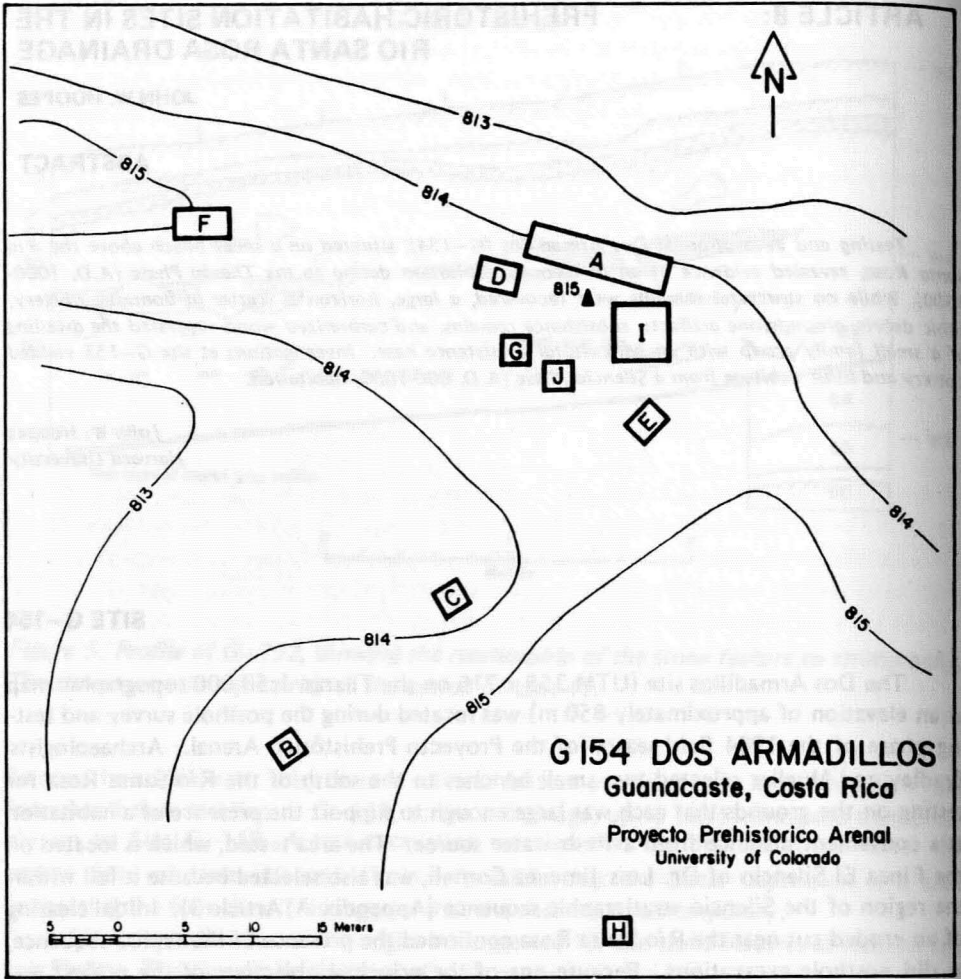


Figure 1. Map of site G-154, Dos Armadillos.

## EXCAVATION

Initial excavation at Dos Armadillos began with a 2 x 2 m pit (Operation A) near the location of posthole tests 5, 7, and 8, on the northernmost side of the bench upon which the site is situated (Fig. 1). This bench is located at the top of a steep slope which drains northward into the Río Santa Rosa. Its nearest water source is a small spring, located approximately 150 m southwest of our excavations; and the river itself is a likely source as well. A second 2 x 2 m pit, Operation B, was placed at the location of posthole 9. While cultural materials were recovered from the Operation B, it was Operation A which proved more valuable in the identification of habitational remains.

The occupied surface in Operation A first appeared as a number of sherds of do-

mestic wares, all lying in a horizontal deposit at the Unit 20/Unit 30 contact. The stratigraphic relationship between the cultural materials and a suddenly-deposited layer of volcanic tephra immediately suggested the presence of a living surface which had been sealed by an eruptive event; and great care was taken to extend horizontal excavations without disturbing the *in situ* remains. This was accomplished by removing the modern surface and upper portion of the coarse lapilli with shovels, and then stripping the remaining portion of Unit 20 from the feature at the top of Unit 30 with trowel and brush. All ceramic and lithic remains were left *in situ* for photographs and a level plan (Figs. 2-3). Fragments of charcoal (most of them smaller than a thumbnail) were collected as the feature was excavated, and then combined to yield samples large enough for submission for radiocarbon analysis.

The horizontal living surface extended through Operations A, D, E, F, G, and I, and was situated at a depth of approximately 35 cm below the modern surface, which is now pasture for dairy cattle. The feature is located at an elevation of approximately 814 m above sea level, and occupied an area of approximately 225 square meters. The greatest concentration of material was in Operation A, as evidenced by a horizontal scatter of chipped stone flakes, fragments of thermally-fractured rock, a fragment of a groundstone metate, and a large number of sherds, primarily from utilitarian vessels. Fine (1/8" mesh) screening of this feature and its continuation in neighboring Operation I yielded a large quantity of very small flakes of fine-grained basalt, chalcedony, and jasper. Screening also recovered a number of carbonized seeds, seed fragments, and other remains of fruits and cultigens.

Although there was little internal pattern to the spatial distribution of artifacts, the horizontal scatters of material and the domestic nature of the refuse are suggestive of an aboriginal habitation. Unfortunately, while one soft patch of dark soil in Operation A may have been the remains of a posthole, it was impossible to discern any significant evidence of aboriginal architecture. Several large sherds of the feature had been broken *in situ*, probably the result of human activity (such as trampling). The horizontal distribu-

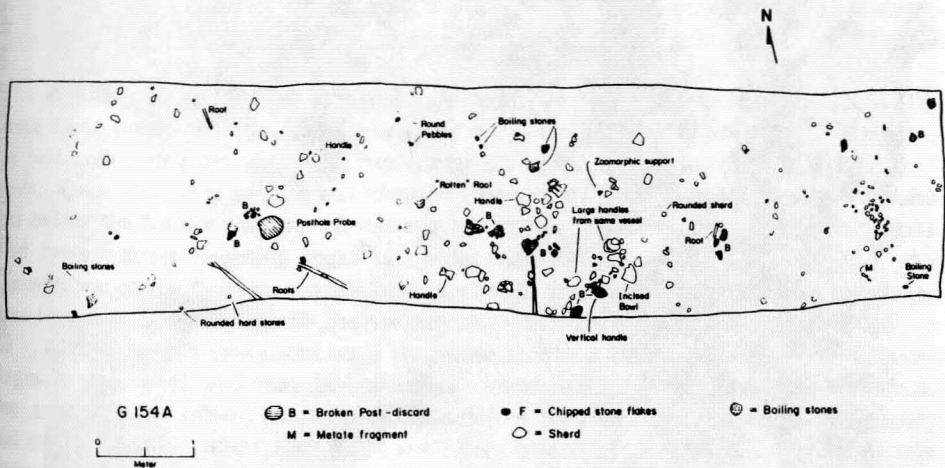


Figure 2. Plan view of G-154A, showing artifacts in situ at the Unit 20/Unit 30 contact.



*Figure 3. Artifacts in situ on the living surface exposed in Operation A, site G-154, Dos Armadillos.*

tion of the material, with all artifacts lying within a deposit about 15 cm thick, argues for its interpretation as a living surface and not as a midden deposit. Bioturbation of the feature must also be taken into consideration. It was crisscrossed by a number of roots of various sizes. The exposure of a larger contiguous area was prevented by the presence of a large strangler fig and its host tree, unfortunately situated directly over the portion of the feature which appeared to have the greatest concentration of artifactual material.

## CERAMICS

A total of 830 sherds were collected from the cultural feature in Operations A, D, E, F, G, and I, of which 87 % were non-diagnostic, monochrome body sherds. Of the remaining sherds, 63 % were classifiable as either San Luis Coarse or Silencio Appliqué, both of which were major utilitarian types of the Tilarán Phase (A.D. 1000-1500). Only 7 sherds were decorated with incision, and there was a single sherd of Jimenez Polychrome, a Silencio Phase type which may have been intrusive. A total of 13 large handles or handle fragments were collected from the feature in Operation A, including two pairs from the same vessels. Therefore, a total of 11 different large storage vessels were indicated. The two most common handle forms were the characteristic shapes from vessels of Silencio Applique (Article 9, Fig. 7: B, C). Most of the handles were large and massive, and their association with heavy rims and thick walls of domestic storage vessels is unmistakable.

While the majority of sherds appear to have belonged to large storage or cooking vessels, a few smaller serving vessels were also present. These included beige-paste, unslipped tripods with zoomorphic supports, black-slipped and polished carinated bowls, and a black-finish hemispherical bowl with a distinct frieze of geometric incision below the rim on the exterior (a yet unnamed type). Although much work remains to be done regarding functional analysis of Costa Rican ceramics, the overall appearance of the ceramics from the feature at Dos Armadillos is that of a late period (Tilarán Phase) domestic assemblage.

## LITHICS

A total of 232 pieces of lithic debris were recovered at Dos Armadillos (Article 10). These came predominantly from Operations A and I. During excavation of Operation A, the soil collected from above the horizontal sherd feature was screened through 1/4" mesh. Once the living surface was identified, however, subsequent deposits from around and below the feature were passed through 1/8" mesh. In Operation I, a 1/8" screen was used once coarser screening began to produce small flakes of high-quality stone. An attempt was made to re-screen backdirt, and while it is possible that some small flakes were lost, the total sample from the 4 x 4 m unit was insignificantly affected.

Although both operations were very close to one another, the difference in assemblages is significant, and may be indicative of separate activities on the living surface. The predominant lithic category for Operation A was "thermally-fractured debitage." Out of 20 examples, there were three complete "boiling stones" (Article 10). Only one fragment of groundstone was recovered from the living surface in Operation A. This has been identified as a metate fragment, and supports the identification of this feature as habitational. Operation A yielded a number of rounded stream rocks, presumably

carried up from the Rio Santa Rosa. Their use has not yet been determined. Fifteen fragments of stone collected were classified as "other."

The assemblage from Operation I suggests the presence of a workshop for the maintenance of flaked stone tools. A total of 193 fragments of flaked debitage — many of them quite small — were recovered as a result of fine screening. Fine-grained basalt predominated, but the presence of chalcedony and jasper indicates procurement of high quality material, probably at some distance from the site. Sheets interprets the assemblage, which consisted of 13 small bifacial trimming flakes, 2 flake cores, and 178 fragments of lithic debitage, as a workshop oriented towards the resharpening of bifacial artifacts. The low (3 %) percentage of hinge fractures indicates a relatively high degree of flaking proficiency. The abrasion on platforms on chalcedony and dacite probably indicates usage rather than manufacture as evidenced by the linear multiple abrasions remaining on the platforms. The abrasion probably resulted from use of a biface as a knife, and these flakes are wastage from resharpening.

It is unfortunate that time restrictions and the presence of a large tree prevented a greater exposure of the feature, but the evidence from the two nearly contiguous operations is highly suggestive of special activity areas within the horizontal deposit. In Operation A, thermally-fractured rocks and a metate fragment suggest the preparation of foodstuffs. In Operation I, the lithic debris indicates the maintenance of bifacial implements of imported, fine-grained stone.

## FLORAL REMAINS

A small but significant amount of carbonized, macrobotanical material was collected in association with the living surface at Dos Armadillos (Article 13). While flotation was not used, the fine-mesh screening of deposits associated with the horizontal feature greatly enhanced our ability to recover small pieces. From Operation A came fragments of *jícara* rind, fragments of *Zea mays* kernels, and indeterminate fruit remains. Fragments of avocado seeds, palm fruits, and *Zea mays* kernels were recovered in Operation D. Operations I and J yielded more fragments of *Zea mays*, *jícara*, avocado, and other fruits in association with the same habitational level. Fragments of charred wood were recovered from all operations, with the greatest quantity coming from Operation A.

The floral assemblage suggests a dependence on both tree crops and cultivated maize, a combination which is common to many indigenous groups of Lower Central America (Smith 1980; Snarskis 1981a). The relationship of food type to artifactual remains is unclear, although metates were certainly used in the processing of maize. It is unfortunate that not a single bone or other faunal remnant was recovered. Nothing can be said with regard to other possible sources of protein utilized at the site.

The presence of *jícara* shell is noteworthy in light of the contemporary use of this gourd-like fruit for storage vessels — often elaborately decorated with carved designs — by the Guatuso Indians of northern Guanacaste and Alajuela provinces.

## Discussion

Once the habitational feature had been drawn and photographed, all artifactual materials from the living surface were collected and all of Operation A was troweled to a

depth of 20 cm below the feature. While Unit 30 extended to a depth of approximately 70 cm below the modern surface, very few artifacts appeared below the sherd scatter. The only exception was a small, polished stone celt, located at the bottom of the stratum near the top of Unit 41, and possibly a cached offering. No other artifacts or features were associated with this item, and its relation to the habitational feature remains unclear.

While ceramic, lithic, and floral assemblages similar to those of Dos Armadillos were recovered at other sites in the Cuenca de Arenal, the significance of this site lies in the context of the archaeological remains. Both the stratigraphic positioning of these immediately below the layer of coarse lapilli (Unit 20) and the strictly horizontal distribution and flat positioning of artifacts enhances their interpretive value. Although no architectural features were recovered to indicate either the shape or orientation of an aboriginal structure, the high percentage of storage vessels and utilitarian wares, the abundance of flaked debris and thermally-fractured stone, and the presence of maize and other vegetable foods indicates the presence of at least one habitational unit on this bench overlooking the Rio Santa Rosa. The paucity of material recovered from postholes and excavations (such as Operations B, C, F, and H) elsewhere on the bench suggests that the occupied area was very restricted, and may have been limited to that of an isolated family unit rather than an aboriginal village.

Ceramic typology and the immediate superimposition of Unit 20 suggests a dating of the occupation to the Tilarán Phase, between A.D. 1000 and 1500.

#### **SITE G-153**

Site G-153 is located at UTM 357 x 724 on the Tilarán 1:50,000 topographic map, at an elevation of approximately 860 m. It is northeast of Dos Armadillos, and is situated immediately downslope from Sitio Neblina (G-151, Article 7), overlooking a small quebrada to the east. G-153 was found by Bradley in the course of the regional posthole survey, when testing revealed fragments of an apparently whole vessel. Two excavation units, Operations A and B, were used to explore stratigraphic and cultural features.

#### **CERAMICS**

Operation A, a 2 x 4 m unit oriented east-west along the hillslope, yielded a total of 117 diagnostic sherds. In Unit 30 (Lot A1), 90 out of 91 sherds were classified as Silencio Phase types. The great majority of these were from a single large vessel of Tres Esquinas Beige (Article 9). In the eastern portion of the operation, a disconformity (Lot A2) was found at a depth of 60 cm below the surface, representing either the intrusion of Unit 30 into or the erosion of Units 40 and 41. It contained 26 sherds, 24 from Silencio Phase types and one each from Arenal and Tilarán Phases. A number of these were also fragments of a single domestic vessel, which was found in association with thermally-fractured debitage.

Operation B, a 2 x 2 m test pit, yielded a total of 3 diagnostic sherds. Interestingly, all of these were from the Arenal Phase type Los Hermanos Beige. No other features were associated with this material.

## LITHICS

Lithic remains were not abundant at G-153. A total of 10 fragments were recovered, the majority from Operation A. These consisted of one possible wedge, one flake, one flake core, five fragments of thermally-fractured debitage, and two pieces classified as "other" (Article 10). The presence of "boiling stones" is highly suggestive of domestic activities, and household manufacture of flakes is also indicated.

## FLORAL REMAINS

Macrobotanical remains were recovered only from Operation A at this site. These consisted of small fragments of charred wood and indeterminate fruits (Article 13).

## DISCUSSION

The principal aim of excavations at G-153 was to investigate the interfaces of Units 20 and 30 and of Units 41 and 50 for evidence of living surfaces which had been suddenly buried by volcanic ashfall. Unfortunately, these surfaces were absent or poorly preserved. Excavations in Operation A continued only as far as the interface between Unit 41 and the Unit 50 Complex, with the exception of the area of disconformity. This feature was excavated to a depth of about 30 cm below Unit 41. Operation B penetrated the uppermost part of Unit 50.

Although no living surface was recovered, the domestic nature of the remains suggests a habitation dating to the Silencio Phase. Given the chronology, it is possible that the inhabitants participated in the funerary activity at the hilltop Silencio cemetery (G-150) immediately to the east.