

ARTICLE 12: JEWELRY FROM THE CUENCA DE ARENAL

MARK CHENAULT and MARILYNN MUELLER

ABSTRACT

A gold avian pendant, a greenstone pendant fragment and six stone beads were found during the 1984 field season of the Proyecto Prehistórico Arenal.

*Department of Anthropology
University of Colorado*

INTRODUCTION

The evidence for personal decoration among the Precolumbian inhabitants of the Cuenca de Arenal is not extensive and would hardly warrant a separate article, except for the importance of a gold avian pendant, found during a stratigraphically controlled excavation in a sealed tomb from which a radiocarbon sample, a soil sample, a phytolith sample, and a pollen sample were also recovered. The gold artifact, along with a greenstone pendant and beads, provide some insight, however scant, into the stylistic preferences, external contacts, and status of the prehistoric inhabitants of the Cuenca de Arenal.

GOLD PENDANT

One small avian gold pendant (Fig. 1) was found in a sample of soil surrounding the skull in Burial No. 1 at site G-150, El Silencio. The burial was in a rock-lined tomb in lot B5. The occupant of the tomb was unaccompanied by any other grave goods. The pendant measures 1.2 cm in height, with a wing span of 1.5 cm, and maximum body thickness of 0.12 cm.

This piece was produced by lost wax casting and was probably cast as a single piece. It appears to have been fashioned from six separate pieces of wax which were joined by wax welds or pressure before casting (Fig. 2). No evidence remains of the position of the sprue which conducted the molten metal into the mold.

The surface appears to have a very high gold content, judging from the color and lack of patina. This is true even of the recesses caused by the slight porosity of the casting. It was not possible to determine in the field whether the bulk of this piece was of a lower quality alloy with finer gold brought to the surface by one of the many techniques available to Precolumbian goldworkers or whether it is of solid gold.

After casting, the rough edges along the wings were removed with a coarse file or abrasive to give a smooth outline but these edges were not finely finished. The surface of the body was smoothed and polished with a very fine abrasive, used principally with

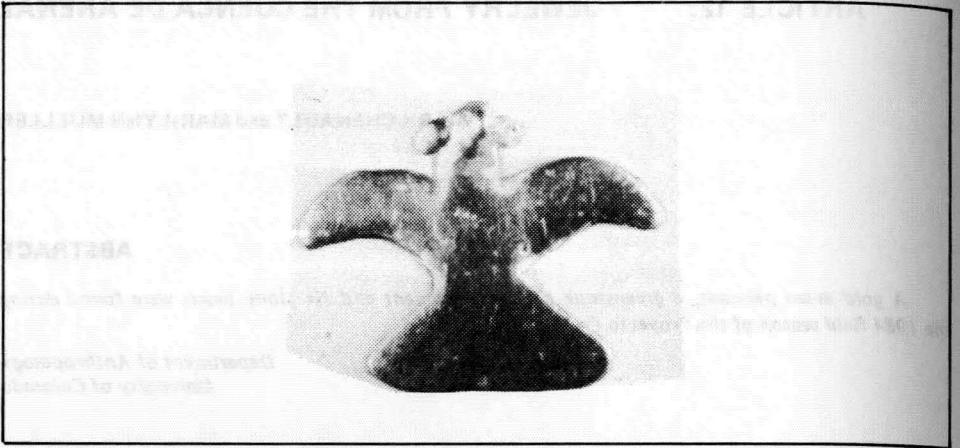


Figure 1. Gold pendant from Burial 1 (G-150B5) at site G-150, El Silencio. Height 1.2 cm; wing span 1.5 cm; thickness 0.12 cm.

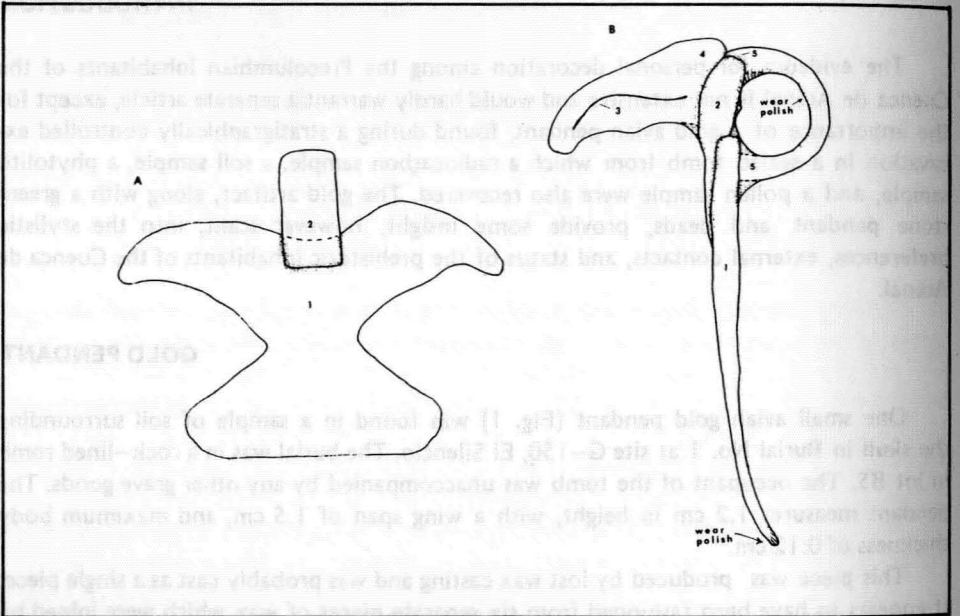


Figure 2. Fabrication of gold pendant. The pieces were probably joined by wax welds, which are formed by the application of a warm instrument to the joint between two pieces of wax. The heat transferred from the implement melts the wax and joins the pieces by fusion. These areas are indicated by stippling. A. The body (1) was formed from a piece of sheet wax and the neck (2) attached to the front of the body with a wax weld. The bottom of the neck was then smoothed with fingers or an implement to produce an invisible joint. B. The beak was formed by folding a wax wire (3) which was then attached to the neck with more wax welds (4). Another wax wire was then joined to the neck and body by the same technique (5) to form the jump ring, or suspension loop. The eyes were added last.

a vertical motion but occasionally obliquely. Much more attention was given to the front than to the back. The high polish on the inside of the jump ring and grooves worn into the back of the head leave no doubt that it was worn, and not specifically made for burial. Several relatively deep scratches on the body which are easily visible to the unaided eye were not the result of wear but were present on the wax model before it was cast.

Stylistically, the pendant seems to be something of a hybrid. In size, shape of the base, beak and eyes it resembles some of the small solid gold "eagles" found in the Atlantic Watershed and Central Highlands regions of Costa Rica and dated to 800–1550 A. D., or Late Period V–Period VI (Snarskis 1981b). However, the arched wings suggest more southern associations, such as the Diquis region or the Veraguas region of Panama (Lothrop 1950, 1963). It differs from both these types in that it is simpler in design, with the body comprising a single flat element. It also lacks the strongly hooked beak and claws typical of the Veraguas style. Pendants with similar bases, and arched wings, but usually more elaborate, have also been found in the Diquis region (Ferrero 1981).

Metallurgy is generally believed to have reached Costa Rica about 700 A.D. However, while not abundant, there is archaeological evidence of imports and local copies of Columbian and Panamanian forms as early as 500 to 800 A.D. in the Atlantic Watershed region (Bray 1981). Due to the scarcity of gold objects found in Guanacaste and their close stylistic resemblances to the gold artifacts of the Linea Vieja and Diquis areas, it is thought that metallurgy may have arrived late in Greater Nicoya (Ferrero 1981). Thus far, no dated archaeological specimen older than 1000 A.D. has been found in northwestern Costa Rica (Bray 1981). A single tumbaga specimen which is stylistically similar to the El Silencio piece was found in a tomb on San Lucas Island in the Gulf of Nicoya and has been dated to the Late Polychrome, or Period VI (Creamer 1983).

The pendant from El Silencio was found in a tomb which definitely predates the tephra of Unit 41, because that layer was found intact above the tomb. This unit has been tentatively correlated with the top of Unit 5 from the El Tajo sequence, or possibly Unit 4 (Article 3). This tephra fall may have occurred during Period V. Given its simplicity of design, the general time frame for metalwork in Costa Rica, and stratigraphic relationship, a tentative estimate of the age of the tomb and its contents would be between 700 and 1000 A.D. Fortunately, an excellent radiocarbon sample was also obtained from the tomb in which the pendant was found. Dating of this sample should help clarify this question.

Items such as this are often attributed to trade in luxury goods, particularly among chiefdom level societies such as existed in Pre-Columbian Panama and Costa Rica. However, the discovery of a mold for lost wax casting in Guanacaste (Lange and Accola 1979) leaves open the possibility that the pendant was of local manufacture. The mold is believed to date to the Late Polychrome period (A.D. 1200–1500) (Lange and Accola 1979). Gold and copper both occur in small quantities in the Cordillera de Guanacaste (Lange and Accola 1979; Lange 1984a) but it is unknown whether these resources were exploited prehistorically. Gold has been mined at Rio Chiquito for almost a century, and it is possible that this source was exploited prehistorically. There is no direct evidence for this, however.

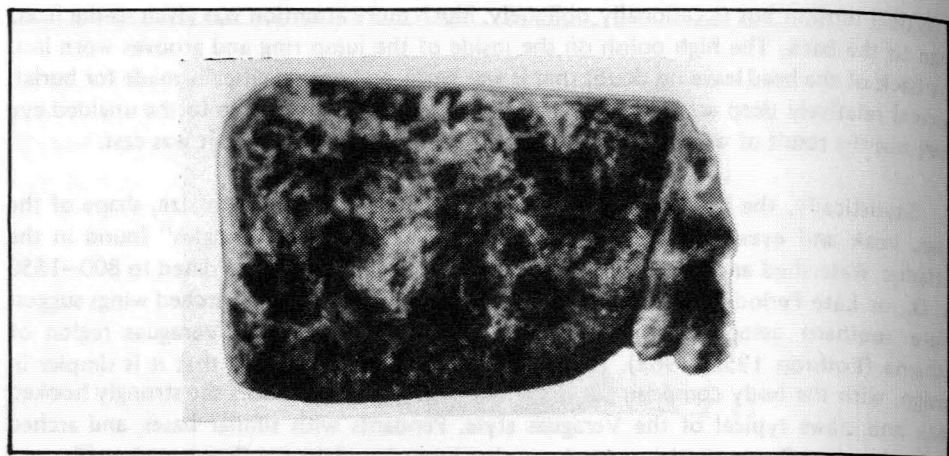


Figure 3. Serpentinite pendant fragment from surface collection at site G-164. Length 2.7 cm; width 1.8 cm; thickness 0.4 cm.

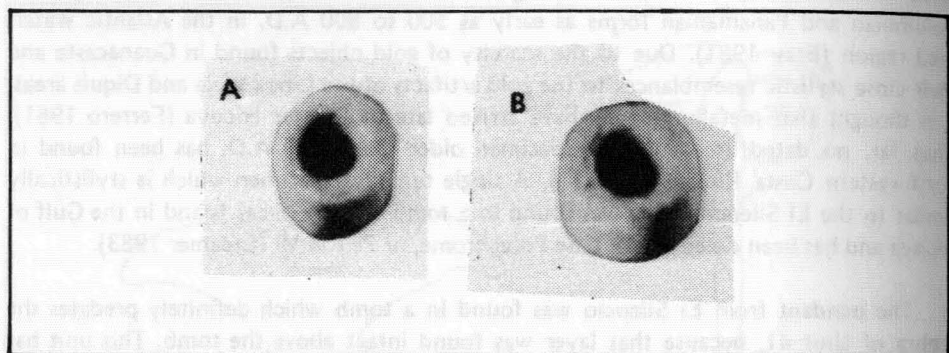


Figure 4. Greenstone beads from Operation C, site G-150, El Silencio. Diameter of A, 0.4 cm; diameter of B, 0.4 cm.

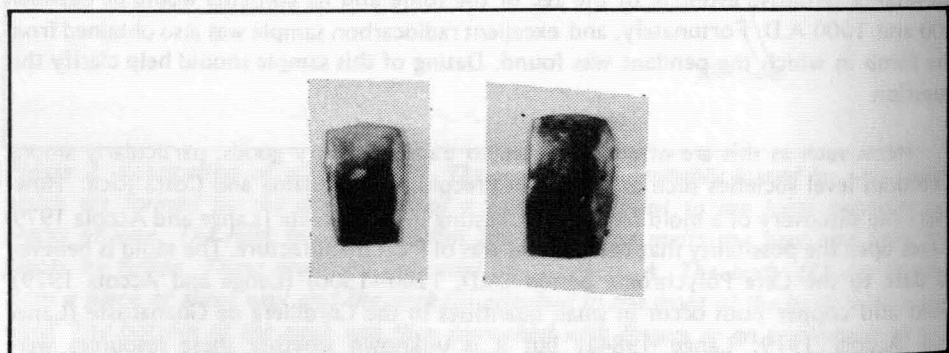


Figure 5. Disk-shaped beads of soft black stone from site G-154, Dos Armadillos. Height (diameter) of A, 0.5 cm; height (diameter) of B, 0.4 cm.

A greenstone pendant fragment was discovered during surface collection at site G-164. The pendant is of serpentinite, a rock composed of amphibole (tremolite-actinolite) and serpentine (Melson, personal communication 1984). According to Melson, this raw material was not available in the Cuenca de Arenal, and had to have been imported into the area. Unfortunately, no information is available as to the source of the material.

The fragment appears to be slightly less than half of a winged pendant (Fig. 3). Winged pendants of greenstone and jade are described and illustrated by Balser (1974) and Easby (1968, 1981). There appears to have been a carved figure in the center of the pendant. This suggests that it is a bat pendant, similar to those illustrated by Easby (1981: Pl. 85 and 86), though less elaborate. It is 2.7 cm long, 1.8 cm wide and .4 cm thick. It weighs 15 grams.

Though not of jade, the pendant was probably produced using technology similar to that employed in jade carving. As Easby states:

Archaeologists speaking of "jades" usually mean lapidary work, the carving of hard stones generally. In Middle America, the stones selected by ancient peoples were predominantly green and not always very hard (1981: 135).

Descriptions of jadeworking technology are provided by Foshag (1957) and Easby (1968, 1981), and will not be dwelt upon here. The pendant was shaped mainly by grinding. Flaking and pecking may have been used to roughly shape the item prior to grinding, but there is no direct evidence for this. The figure in the center of the pendant was carved with a combination of incising and grinding. An abrasive material, such as quartz sand, may have been employed in the shaping and carving of the object. However, with a stone as soft as serpentine, grinding the pendant against an abrasive stone may have been sufficient.

BEADS

Three greenstone beads (Fig. 4) were recovered from the large cemetery site (G-150). They may be of a hydrothermally altered andesite similar to some of the polished celts from the Cuenca de Arenal (Melson, personal communication 1984). The beads are tubular, and are biconically drilled. One bead has fine striations running along its long axis, parallel to the suspension hole, indicating that it was ground lengthwise during production. The ends of the beads are ground smooth and the edges are slightly rounded.

Three other beads were found at site G-154. The beads are disk-shaped and are of an unidentified, soft, black stone (Fig. 5). They appear to have been produced by snapping off sections of a longer tube. The ends of the beads are not ground smooth, though the outsides of the beads are. The tube may have been biconically drilled, but the individual beads do not show evidence of this.

Metric data for the beads are presented in Table 1.

Table 1. Metric Data for Greenstone and Black Beads

Site	Operation and Lot	Length	Diameter
G-150	C-5/2	.5 cm	.4 cm
	C-5/2	.5 cm	.4 cm
	C-8/2	.6 cm	.4 cm
G-154	IC-2	.5 cm	.5 cm
	IC-2	.3 cm	.4 cm
	A-2	.3 cm	.4 cm

SUMMARY, CONCLUSIONS

The gold avian pendant and greenstone beads are from stratigraphically controlled excavations at the large cemetery site G-150. All were found in tombs which predate the Unit 41 tephra fall. The black beads were found at a habitation site, G-154. They were found in Unit 30 and with Tilarán Phase ceramics, and thus are somewhat later. The greenstone pendant fragment from G-164 was a surface find.

Although these few articles of personal adornment come from widely differing contexts, they nevertheless bespeak a certain appreciation of luxury resources, both in terms of the exotic materials of which they are made and the specialized techniques of manufacture. Whether they were items of local manufacture or trade goods cannot be determined, but both stylistically and technically they indicate at least some external contacts for the Precolumbian inhabitants of the Cuenca de Arenal. Stratigraphic control and radiocarbon dating of a sample from Burial No. 1 will provide a time frame for these developments.