The Art Institute of Chicago

Some New Acquisitions of Pre-Hispanic Gold

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Source: Bulletin of the Art Institute of Chicago (1973-1982), Vol. 67, No. 1 (Jan. - Feb., 1973),

pp. 16-20

Published by: The Art Institute of Chicago Stable URL: http://www.jstor.org/stable/4111236

Accessed: 11/11/2013 16:53

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In 1968 the Art Institute organized a major exhibition of pre-Hispanic gold with the Boston Museum of Fine Arts and the Virginia Museum. Because of the fine examples of Peruvian work that were part of the Gaffron collection and other examples of Middle American gold that had come to us over the years from various sources, our holdings were well represented and received overdue recognition. As often happens following a successful display of a specialized nature, the Art Institute has shown renewed interest in this area of collecting, and has since added a number of important examples to the collection. To the curator, two particularly interesting acquisitions were made, because they related directly to problems which had been introduced by the exhibition.

One of these is the crouching jaguar illustrated in fig. 1. It is one of a scattered group, which at the time of the exhibition numbered five, and three were in the display.1 Two years later, when a sixth suddenly appeared on the New York art market, it was immediately called to our attention, and fortunately acquired. Besides its obvious sculptural quality, the jaguar represents a fascinating document from the standpoint of metal working techniques. In ancient Peru, the actual casting of gold occurred very rarely, perhaps owing to the scarcity of beeswax which was a necessary substance for the lost wax casting process. Instead, gold was shaped by the technique of annealing, whereby the metal was heated to a precise temperature which rendered it soft and malleable, but not molten. Shaping, bending, the application of repoussé ornament and addition of inlay were then the techniques employed to create the finished piece. Much Peruvian gold is therefore flat and basically two dimensional, as pure sculpture was somewhat difficult to produce from annealed sheets.

Seven different pieces of gold were required to make the jaguar, to form the upper and lower body, the two ears, the tail and the two front paws. Each was carefully cut and hammered, soldered at the seams, and fitted into the body. The larger sections were probably hammered over a stone or wood matrix, and precise comparative measurements have recently been carried out on all six examples to determine whether or not the same form was used in each case, as we would suspect.² Inlays of stone or turquoise adorned the eyes, and the two small holes at the tail and at the middle joint of each front leg held danglers. As each of the six jaguars is a separate unit, their function is not known, but perhaps they were burial objects of some kind. They are believed to be of the Vicus style from the far north coast of Peru, and were made during the earliest period of gold working in the new world, between about 400 B.C. and 100 A.D.

Of later date, but equal importance is the frog pendant illustrated in fig. 2. It is thought to have been made between the sixth and eleventh centuries and comes from a site on the southeast coast of Panama in the Canal Zone, called Venado Beach. The site is famous for a small number of superbly cast gold ornaments that were first accidentally discovered in a number of graves by soldiers stationed at nearby Fort Kobbe during the late 1940s. Venado Beach pieces are rare, so much so, in fact, that it was not possible to include an example in the 1968 exhibition. The existence of this frog pendant was known to the author through an article dealing with the amateur archaeological activities of the personnel at Fort Kobbe,3 but its whereabouts was a mystery. Some months after the exhibition had closed, a letter was received from Col. Lee E. Montgomery of St. Charles with the information that he had carried out some of the excavations at Venado Beach and had a collection of objects he wished to donate and sell to the Art Institute. The frog pendant was one of them.

In order to fashion this extraordinary object, it was necessary to employ the technique of lost wax hollow core casting. First, a core made of a mixture of



Fig. 1
Jaguar ornament, Vicus Style,
Far North Coast, Peru, c. 400 B.C.-100 A.D.
Hammered and soldered gold. 4½ in. long.
Primitive Art Purchase Fund and
Alsdorf Foundation Restricted Gift 1970.420

Fig. 2
Frog pendant. Excavated at Venado
Beach, Panama in 1951, c. 500-1000 A.D.
Cast gold, 3¼ in. long.
Wirt D. Walker Fund and gift of
Mr. and Mrs. Lee E. Montgomery 1969.792



clay and charcoal was modelled in the form of the frog. Tiny wax threads were next laid over the core in the form of spirals, parallel lines and loops such as we now see in gold. This construction was covered in clay into which vents and a pouring spout were placed, and the mold was then heated to melt the wax. Molten gold was finally poured in, taking the place of the wax. Upon cooling, the mold was broken, the core carefully removed, and the gold polished and chased. For the gold to flow evenly into such small channels, the wax threads had to be applied with knowledge of flow patterns as well as design and the overall form of the object.⁴ Pendants in the form of

frogs are common to the gold sculpture of Panama and Costa Rica, perhaps as representations of fertility,⁵ or in relation to a cult which used a toxin obtained from tree frogs to induce trances.⁶ This frog pendant is exceptional. In terms of its size, technical mastery and esthetic quality, it is one of the outstanding survivals of metalsmithing from the entire Isthmus.

Also from Panama is another large pendant in the form of a male figure probably representing an alligator deity (fig. 3). Three alligator heads are shown on each side of the figure, extending from the top crest, the ends of the arms and from a sinuous form emanating from the center of each leg. Their



Fig. 3
Alligator deity pendant. Veraguas style, Panama,
c. 1000-1500 A.D. Cast gold, 5 in. high.
Gift of Mr. and Mrs. Joseph P. Antonow 1970.1054

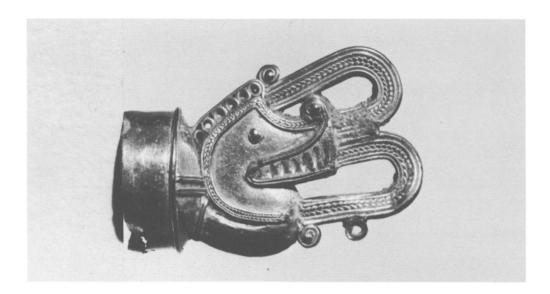
placement in upside down positions is puzzling, but is a feature known to other examples. Alligators were important to the iconography of the art of Panama, and besides appearing in conjunction with human figures as here, are also found associated with frogs, eagles and jaguars. The pendant is unusually large, but is otherwise typical of work from Veraguas, a style province located northwest of the Azuero Peninsula. Lost wax casting was commonly employed by Veraguan smiths, and after the objects were removed from the mold, they were sometimes hammered cold to achieve a greater hardening of the metal. Because a relatively high proportion of copper was sometimes

used in the gold alloys, another technique, known as *mise en couleur* was also employed to bring a purer form of gold to the surface of the object. Acid bearing leaves were rubbed over the casts, the juices of which corroded away the copper, but did not effect the gold. The creation of this pendant required the use of each of these techniques.

Although Panama and Peru are generally better known for their production of gold during the pre-Hispanic period, great amounts were worked in Colombia as well, and all of the techniques of casting and hammering described above were skillfully employed. As few examples of Colombian gold currently belong to the Art Institute, it was significant that we were able to add a piece of Tairona work to the collections (fig. 4). Tairona means "goldworkers" in the local dialect, and many connoisseurs regard cast pieces of this style to be among the finest from all of ancient Colombia. The culture occupied an area in northeastern Colombia in the Sierra Nevada de Santa Marta.

The object is a ceremonial lip plug, known as a labret, which was affixed to the lower lip through a hole pierced in the flesh and the subsequent attachment of a flanged plug. An alligator face in profile is ornamented with two large loop forms extending from the mouth, a row of openwork circles at the top of the head, and spiral forms at the tip of the nose and at the points where the loops join the top of the head and neck of the animal. Of particular note is the fineness of the detail on the relief bands on the surface of the loop forms, and in the line that delineates the top and back of the head. It is a typical detail of Tairona work, and might have been achieved by laying a finely braided textile thread over the original wax sculpture as part of the entire mold. This thread would then have been burnt away by heating at the same time the wax was also melted and the labret could be produced in one single flow of metal. The quality of

Fig. 4
Alligator head labret. Tairona culture, Colombia,
c. 1000-1500 A.D. Cast gold, 1½ in. long.
Mr. and Mrs. Eugene Davidson Restricted Gift 1971.768



the casting and detail is comparable to that of the Venado Beach frog, but the labret is somewhat later in date, having been made between about 1000 and 1500 A.D.

It has been necessary to describe specific techniques at some length here, because there is often a tendency to take objects of this nature for granted, and to look at them simply as interesting adornments without thought of the difficult problems presented by their manufacture. None of the cultures of pre-Hispanic America achieved a higher scale of development than the Bronze Age, and only the simplest tools were available for metalwork of any kind, consisting of such things as crude clay molds, stone hammers and chisels, bone or reed blowpipes and copper or bronze crucibles. For obvious reasons, the arts of architecture, sculpture and painting are those for which the ancient civilizations of Latin America are most renowned, but the achievements represented by

the workmanship of the gold objects such as those shown here are at least as great.

ALLEN WARDWELL

FOOTNOTES

- I The Gold of Ancient America, Boston Museum of Fine Arts, 1968, nos. 5, 6, 7.
- 2 These findings as well as a metal analysis have been carried out by Heather Lechtman and Lee Parsons and will be published shortly.
- 3 Lothrop, S. K. Jewelry from the Panama Canal Zone, Archaeology, Vol. IX, no. 1, p. 40, pl. 7.
- 4 Emmerich, A. Sweat of the Sun and Tears of the Moon, Seattle, 1965, p. 90f.
- 5 Ibid. p. 104.
- 6 Dr. Peter Furst is currently carrying out research into this subject. I am indebted to him for allowing me to use this information.
- 7 Emmerich, A., op. cit. p. 79.