

The site of the bead factory itself is, unfortunately, now under an artificial lake. However, the nearby village where the craftsmen lived is now the site of the Irkutsk Museum. Archaeological samples of some of the old glass wasters from the manufacture of beads have been recovered from excavations in the area. Dr. Bychkov is currently preparing an article that he hopes to publish soon giving much more detail about these real Russian trade beads.

10. PRE-COLUMBIAN TAIRONA TINKLERS, by Ellen M. FitzSimmons (1993, 23:11-14)

Analysis of 95 pierced pre-Columbian shells in the Smith collection from the Tairona culture area of Colombia, South America, reveals these items to have been component parts of necklaces and, perhaps, bracelets, and not the whistles, rattles, or bells that they have previously been termed in anthropological literature.

Introduction

In 1902, The Carnegie Museum of Natural History, Pittsburgh, acquired over 1400 pre-Columbian items from the Tairona area through the efforts of Herbert H. Smith, an American naturalist. Smith collected these artifacts from 21 sites in the Sierra Nevada region of northeastern Columbia. Although none have been radiocarbon dated, the articles can most probably be assigned to the period from the 11th through 16th centuries A.D. when the Tairona culture area chiefdoms flourished. Gold, mammal bone, shell, coral, serpentine, greenstone, quartz, jasper, and carnelian beads comprise approximately one-third of the collection.

Description of the Shell Objects

Notable in the Smith assemblage are 95 pierced shells, excavated from various interments at the littoral site of Gairaca and secured during surface collection of the rifled site of the prehistoric cemetery of Las Tres Cruces. Examination of these objects revealed that they are fabricated from *Oliva*, *Marginella* and *Cypraea exanthema* shells.

In every instance, the posterior spire of the shell has been ground or sawn away (Fig. 1). Francis (1982:714) illustrates one grinding technique which might have been used to remove this portion of the shell. In most cases, an inward-slanting horizontal-oval opening has been produced on the curved dorsal aspect. This perforation is in the center of another larger ellipse carved into the dorsum. The elliptical piercing is consistently located approximately 0.5

cm above the anterior extremity of the *Oliva* and *Marginella* specimens. The same type hole is positioned roughly 1.0 cm above the anterior extremity of the *Cypraea exanthema* examples, whose overall sizes range from 5.5-7.7 cm. The average length of the *Marginella* shells is 2.5 cm. The sizes of the worked olivid shells (0.8 cm to approximately 4.5 cm in length) place them within the ranges of the *Oliva cuya*, *O. angulata*, and *O. caribaeensis*. However, an exact species determination cannot be made because of post-depositional erosion and weathering of the specimens.

Reinterpreting their Function

These particular sawn and pierced shell items of Tairona-region manufacture have heretofore been designated either as "whistles" (Smith 1898) or "rattles" in the archaeological literature (Mason 1936:233, Pl. 127). Analogously worked shells, excavated elsewhere in Colombia, have simply been listed as "shell objects" or "bells" in South American publications (Reichel-Dolmatoff 1954:153, Pl. 10, Fig. 1, 2).

Of note, *Oliva* shells, a valued commodity, were traded from the Caribbean to the Muisca near Bogota in pre-Hispanic times along an overland trade network mentioned by Fr. Pedro Simon (1882). Examples of such traded shells in the Museo Nacional (Bogota) collection have not had their spires removed. These shells were found at Vereda Salitre, Paz del Rio, Boyaca; however, the context in which they were found is not delineated in the literature. Two simple holes are pierced on either side of the shells' anterior extremities, across the aperture, perhaps for stringing during transport (Bray 1978:143, Pls. 185, 186). If these shells were finished ornaments, then they are a different type than those typically made for and used by littoral groups.

A Coarse Red Ware effigy sherd from the Tairona culture area now at the American Museum of Natural History, New York, portrays a human figure, in low relief, wearing pierced-shell beads identical to the sawn/ground and pierced *Oliva*, *Marginella*, and *Cypraea exanthema* shells in the Smith collection (Mason 1939: Pl. 184, Fig. 5). In the neck region, a semicircular band appears above the shells with corresponding double bands below them. It cannot be determined whether this design indicates that the shells were incorporated into a neckpiece rather than being strung alone, or whether the bands indicate clothing. Other Tairona-region figures depict both males and females wearing collared necklaces which tie behind the head.

Similarly worked shell ornaments, many of which are also fashioned from *Oliva*, have been found in archaeological contexts throughout the Caribbean. They are commonly called "tinklers" (Watters 1991:298-299).



Figure 1. *Oliva* ornaments from sites in the Tairona culture area of Colombia (Smith collection, The Carnegie Museum of Natural History, Pittsburgh).

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