

amulets of the Mekkawi shape—known as *Thlhatana* in Hausa) and long faceted beads. I have such a necklace of large green cornerless beads from Persia as well as smaller examples from Syro-Palestine. If one studies photographs of ethnic peoples it is clear that the size and weight of bead adornment is no hindrance. I have been advised that these cornerless cube beads are bloodstone, a type of hematite. I've also seen more recent examples in moss agate. They may have been manufactured in Cambay or Germany or in both places. Cornerless cube beads are also made of lapis lazuli and date to the 3rd millennium in the Middle East.

It is valid to associate them with protective amulets and beads. I found that all the beads and pendants worn by the Bedouin in the Middle East have magical significance, usually to ward off the evil eye or to promote fertility.

The articles on the Arkell Collection that *Ornament* will be publishing deal with the magical properties of beads and with the Egyptian dealers who provided Arkell with many of the beads in his collection. One such dealer was G. Hindi who was convinced that all stone beads were made in Cambay. Having carefully examined the Arkell beads, I am certain that many of the carnelian beads are of considerable antiquity and were either kept as heirlooms or traded in the distant past.

Dr. Schienerl is probably not very familiar with ancient beads from the Middle East as he states that “no other material [except for agate?] seems to have been used for cornerless cube beads.”

I have in my collection cornerless cube beads of various stone materials as yet unidentified, a splendid string of rock crystal cornerless cubes, and a beautifully cut string of small Hellenistic carnelian cornerless cubes. These were often used on Hellenistic gold chains and there is such an example in the Nicosia Museum in Cyprus. I also have amber and jet cornerless cube beads. This was a very popular shape and was copied in glass as early as 900 B.C.

I would like to encourage SBR members to base their research on source material that is documented and on excavation reports. We will gain the respect of the archaeological world only if our published reports are accurate and well researched. Once the SBR has gained this recognition we may be able to have a positive influence on the study of this subject.

P.S. I have decided to give all my bead correspondence and research papers to the Institute of Archaeology, University of London, 31-34 Gordon Square, London WC1H 0PY, England. The material, which deals primarily with ancient beads, should be cataloged by the end of April. Mr. Peter Parr, Head of the Department of Archaeology, assures

me that those involved in bead research will be welcome to use the papers. Interested persons should contact Mr. Parr directly.

9. RUSSIAN TRADE BEADS MADE IN IRKUTSK, SIBERIA, by Glenn Farris (1992, 21:2-3)

At the Alaska Anthropological Association meetings held in Fairbanks on March 27-28, 1992, Dr. Oleg Bychkov, Science Director at the State Unified Museum of Irkutsk (Siberia), gave an impromptu presentation on Russian trade beads. Apparently, Irkutsk had a glass factory which began production about 1782 and lasted until the 1820s. This factory was established by a famous natural scientist who had come to Siberia to do a study of the various minerals present. His name was Finns-Erik Lachsmann. An Academic of the Saint Petersburg Academy of Science, Lachsmann had been trained by a leading Russian scientist of the day, Academic M.V. Lomonosov, who had himself established a glassmaking factory in St. Petersburg which made fine glass beads.

Lachsmann discovered a source of “clay salts” (*ghuzir*) in the vicinity of Lake Baikal. This material was substituted for potash in the making of glass at the factory he established midway between the deposit and Irkutsk (about 47 km from either one). About this time the governor of Irkutsk was a man named Jacob Klichka who was originally from Bohemia and was undoubtedly familiar with the value of glass beads. Glass “seed” beads were the first item of production. The problem was the relatively low quality of the glass due to the presence of carbonate salts. This gave the beads a milky appearance. In archaeological contexts, the clay would often be washed out and leave a pockmarked appearance of the beads, especially if they were in acidic soil. The basic color of these beads was a light blue, although some were also milky white.

Until 1790, a fur-trading company owned by Shelikov got virtually all the beads. One of his managers at the factory was Alexander Baranov who later became the manager of the Russian-American Company in Alaska. There are two letters from Shelikov in 1792 directing company agents to use beads to pay for furs. City business records show beads being manufactured, but only up until 1801. Even so, the factory continued in production beyond that time. Many records were destroyed in a fire in 1879, which is part of the reason why the archival material is not complete. It is possible that the glass factory was actually owned by the Russian American Company (the successor to the Shelikov Company, still under Shelikov's control). This company gained an exclusive charter in 1799 from the Tsar to hunt fur-bearing animals in the North Pacific.

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).