

FLORIDA COIN BEADS

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ABSTRACT

At a number of historic sites in Florida a clearly defined type of silver bead has been found associated with both Indian and Spanish Colonial artifacts. Study of these beads and their associations had indicated that they were probably made from Spanish cut silver coins salvaged from wrecks along the coasts. It is suggested that they were hammered into shape by Indians or possibly by Spanish seamen resident in Indian camps. Their wide distribution suggests the existence of some sort of redistributive system.

In the course of an analysis of glass beads of European origin in Spanish-Indian sites in Florida and the Caribbean we became aware of a type of simply made silver bead that occurred widely in Florida Indian sites but were not found in purely Spanish sites in Florida or the Caribbean. They are found at Goodnow Mound (Griffin and Smith 1945: 14-15, Pl. II-A) on the east coast, at Ft. Center just west of Lake Okeechobee, and at Punta Rassa on the west coast as well as sporadically at other sites. No very precise dating is yet possible but the associated glass beads seem to indicate dates as early as the 16th century and as late as the first quarter of the 18th century. Thus they cannot be used at present as chronological markers, but are of interest for the light they throw on Indian and Spanish relationships.

The beads are associated at Goodnow with beads of the following types: Florida Cut Crystal, Amber Chevron, Ichucknee Plain Blue, Florida Spheroidal (translucent green), and seed beads of opaque white, light blue, and dark blue colors. At Ft. Center they are associated with Florida Cut Crystal, Florida Cut Crystal Pendant, and possibly other forms. At Punta Rassa they are associated with Florida Cut Crystal, Florida Cut Crystal Pendant, Punta Rassa Tear-drop Pendant, Seven Oaks Gilded, Chevron, and seed beads of blue, green, and white colors. At Canova Beach and Wabasso Beach, as well as some other sites in the Vero Beach area they seem to be associated with Florida Spheroidal, Florida Cut Crystal, and amber beads as well as a series of cut metal ornaments (Rouse 1951: Pl. 7 N, 8 E-1). In at least a few cases in the Vero Beach area they are also associated with rolled tubular beads of silver and copper sheets.

The wrecks so far positively identified in the coastal stretch from Sebastian Inlet to Ft. Pierce are those of the 1715 Flota. At least some of the sites recorded in that area, such as Br 134, are clearly the camps of salvors who used some Indian labor. The Florida Cut Crystal bead and Amber bead, and probably the Chevron Bead from Fuller Mound A, Br 90, would date from the 17th century and are rarely found as late as 1715. They do occur, however, in some of the earlier 18th century mission sites. All indications are that these Florida Coin Beads date from about 1650 to about 1720.

The beads vary in size and shape as can be seen from Table 1 and Fig. 1. The overall shape is usually spherical with flattened ends, although a few are rather neat cylinders. The majority are barrel shaped (i.e., an elongated spherical form). The outside is usually quite smooth, showing few if any tool marks. All share the characteristic of having a longitudinal section resembling the capital letter "H" in which the cross-arm is vertically pierced as is indicated in Fig. 2.

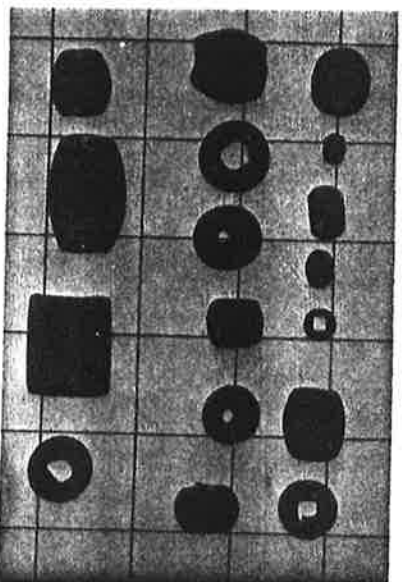


Fig. 1. Florida Coin Beads from the Punta Rassa site. University Museum, University of Pennsylvania, No. 8193. Lines are 2cm. apart.

Perforations are relatively large in relation to bead diameters. About half of these perforations have a square shape and show the appearance of having been punched rather than drilled as small extrusions of metal are found around the lip of the hole. In some cases the central hole is rather round and could have been drilled. In the case of at least some of these round holes the minute extrusions of metal around the edges suggest that they were punched with a round tool rather than one having a square cross-section.

TABLE 1

Diameter	Length	Weight	Coin Value	Nominal Weight	Bead as % of Coin	Remarks
6.5 mm.	4.5 mm.	0.65	1/4 real	0.85	76.5%	Square hole
7.0	4.5	0.70	1/4	0.85	82.4	Square hole
7.5	5.0	1.4	1/2	1.70	82.5	Square hole
11.0	7.0	3.9	1	3.43	114.0	Square hole
12.0	9.0	6.25	2	6.86	91.0	Irregularly sq. hole
12.0	12.5	4.95	2	6.86	72.0	Square hole
12.0	7.0	5.97	2	6.86	87.0	Square hole
12.0	10.0	8.5	3	10.3	81.5	Square hole
12.5	8.5	6.7	2	6.86	97.5	Square hole
12.5	13.0	6.0	2	6.86	88.0	Square hole
12.5	13.5	7.1	2	6.86	103.0	Square hole
13.0	15.5	8.6	3	10.3	83.5	Square hole
13.0	8.0	10.8	4	13.7	79.0	Square hole
14.5	15.0	7.9	3	10.3	76.5	Square hole
14.5	11.5	10.0	3	10.3	97.0	Square hole
15.5	23.0	24.4	8	27.44	89.0	Square hole
17.0	19.5	25.6	8	27.44	96.0	Square hole
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$\bar{R}=6.5-17.$	$\bar{R}=4.5-23.$	$\bar{R}=.65-25.6$		$\bar{R}=.85-27.44$	$\bar{R}=72-114$	
$\bar{x}+12.06$	$\bar{x}=11.0$	$\bar{x}=8.21$		$\bar{x}=9.28$	$\bar{x}=89.02$	
Mode=12.3	Mode=9.5	Mode=6.475		Mode=6.86	Mode=85.25	
S=2.975	S=5.2	S=6.985		S=7.71	S=10.81	

From these morphological characteristics the method of manufacture seems fairly clear. I believe that the bead maker took a Spanish cut coin and punched a hole in the center with a wrought iron nail. These nails had square cross-sections and were considerably harder than the silver or villon (silver and copper mixture) coins. Round holes could have been punched either with a round tool or the nail could have been used as a reamer to round the hole. It would seem that some anvil with a hole for the punch would have been handy but not really necessary. Experiments using a hard wood anvil and silver discs of about the thickness of Spanish coins indicated that this method is clearly possible. It evidently was not necessary to heat the coins in order to punch the holes without buckling the coin.

The second step in making a bead was to hold the pierced coin in a vertical position, when the punch would be horizontal and serve as a convenient handle. That the punch remained in the hole during this stage seems pretty certain. With the coin in a vertical position, the edge was hammered repeatedly while the coin was rotated in its punch axis. This expanded and thickened the edge in a sort of double mushroom which gradually approached the typical "H" form. Leaving the punch in place prevented the hole from collapsing or being deformed during this hammering process. The use of a square nail would greatly facilitate handling the coin during the whole process.



Fig. 2. Cross-sectional diagram of a Florida Coin Bead.

When the desired cylindrical, spherical, or barrel-shaped form had been achieved, the bead was finished by polishing. How this was done is not apparent. I suppose that with moderate skill in the hammering stage, little final polishing would be necessary.

The weights of the Punta Rasa series of beads were compared to the weights of Spanish cut coins as shown in Table 1. In the two cases the beads bear no clear relationship to weight of any denomination of Spanish coin. In most cases, however, they are only slightly less than the presumed legal weight of the coins. This averaged 8.21 grams or 86.37% of the coin weight. This implies that some metal was lost during the hammering and finishing processes. The loss is not great, however, and seems to support our hypothesis about the origin of the beads. These were clearly not made by skilled silversmiths and it is to be expected that some loss of metal would occur.

When we consider the relatively crude way in which the cut coins were made, we will see that minor variations in weight are to be expected. During the period under discussion the Spanish New World mints, of which Mexico City was the most important, used a method which has been called "Cabo de barra" or "bit of a bar." In this technique molten silver was poured out in a long strip, apparently on a smooth stone surface. The strip or *barra* was then cut into bits (*cabos*) approximating the weight of the coins. The weight of an eight real, or piece-of-eight, varied throughout the period, averaging around 27 grams. If the worker cut his "cabos" too big, he, or the assayer, simply chipped or shaved off the proper amount. Many of the cut coins of the period show clear signs of this shaving process. The cut and shaved "cabo" was then placed between two dies bearing the proper designs. The whole stack was then struck with a hammer to transfer the designs, or parts of them, to the coin. Most of the "cabos" were irregular and the force was irregularly applied. The resulting coins rarely show complete designs (Peterson 1965: Pl. 24).

Coins made by this method could be shaved by anyone into whose possession they came. It was not until the development of the screw press about 1731 that milled edges came into use and shaving could be readily detected. Before 1731 most merchants used scales of various types to weigh coins offered them. Nesmith (1955) asserts that individual coins "varied in weight but that groups of coins generally averaged above weight. We are not able to check coin weights very accurately for several reasons. Few, if any, uncirculated, cut coins are available. When pressed coins with milled edges appeared after 1731, most earlier coins seem to have been re-minted. The coins available in any quantity are

those from wrecks of the Spanish Flota carrying them to Spain. When these have been cleaned, even by the most careful methods, they certainly do not give an accurate picture of the original weights.

The Florida Coin Beads seem to have been made from silver cut coins of 1/4, 1/2, 1, 2, 4, and 8 reales value. The question of who made them is not as easily resolved. Certainly the Indians along Florida's east coast were busily salvaging any wreck that came to their attention (Dickinson 1945). The experience of Fontenada clearly recounts the fact that shipwrecked mariners were often held for years by the Indians (Fontenada 1944). The Spanish salvage crews sent out to recover whatever was possible also seem to have had Indian labor, probably recruited locally (Governor of Florida 1716). The process used to make Florida Coin Beads was probably within the capability of either the Indians or of the Spanish sailors, untrained in silversmithing or metal-working. What is perhaps most interesting is that these beads are found clean across the peninsula. In fact, one of our largest collections was intrusive into the Ft. Center site just west of Lake Okeechobee, and thus rather removed from either coast. Goggin and Sturtevant (1964) have shown that the Calusa in the 16th and 17th centuries had a ramage system involving a redistribution based on tribute from subject towns and bands. It now seems clear that the bulk of Spanish wrecks occurred on the east coast of the peninsula, especially in the vicinity of Canaveral. Yet relatively few Florida Silver Beads have been found there. Two or three specimens have come from the Goodnow Mound and a few sites in the Vero Beach area. The majority have come from Central sites or West coast sites. There seems to be a strong possibility that the beads were made on the east coast, by either Spaniards or Indians, and then taken to Calusa country as tribute.

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