

INCIDENCE OF VIRGIN NERITE AS SHELL ORNAMENTS AT MORHISS (41VT1), AN ARCHAIC CEMETERY SITE

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ABSTRACT

The use of Virgin Nerite shells as ornamentation and grave goods has been documented from the Morhiss site (41VT1) in Southeast Texas. This is only the second site to document archaeologically this marine gastropod species; the other incidence being tentatively identified at the Ferguson site (41FB42). Analysis of Nerite beads from Morhiss indicates that a different method of modification was practiced from those at the Ferguson site but Nerite beads from both sites seem to have been incorporated into an appliqué design. Microscopic analysis to determine the color patterns of periostracum remnants on the Nerite shells also gives further insight into their possible function as appliqué beads.

INTRODUCTION

The use of Virgin Nerite (*Neritina [Vitta] virginea*¹) as a shell ornament has been reported in only two sites from Southeast Texas (Figure 1). The first account is a tentative identification of this gastropod from the Ferguson site in Fort Bend County (Gregg 1993:27). The Morhiss site (Victoria County), reported here, is the second case to document the presence of this type of gastropod as a shell ornament. Both sites have burials dating to the Archaic and both are located on the inland portion of the Western Gulf Coastal Plain. However, there are differences in the way the shell was processed at each site. In addition, at Morhiss the Nerite was found in direct association with *Marginella* beads (*Prunum [leptegouana] apicinia*). At Ferguson, the Nerite was found with discoidal marine shell beads.

DESCRIPTION OF VIRGIN NERITE AT THE FERGUSON SITE

Gregg (1993) noted the presence of worked gastropod shells with a burial recovered from the Ferguson site (41FB42), in Fort Bend county. This

site has a sequence dating from the Late Paleo-Indian period through the Late Prehistoric; human burials occurred during the Late Archaic period. Burial 2 was found with approximately 40 small gastropod shells located near the femora and pelvis of the individual, in the area of the extended arms and hands (ibid.:26). The gastropods were described as hemi-ellipsoidal and measured 7 - 9 mm in length and 1 - 2 mm in height (ibid.:26). Characteristics seen on the shell resulted in their tentative identification as *Neritina (Vitta) virginea*, the Virgin Nerite. However, the author noted that the walls and columellae of shell were thicker than examined comparative specimens (ibid.:27). Each of these shells had been modified by grinding, producing a flat surface. The modification seen on these specimens resulted in a sectioning of the columellae (ibid.:26). The apex of the shell was left intact, but the aperture was absent (ibid.:26-27). Gregg stated that the shells were probably not strung and worn as a bracelet since they were fragile. In addition, no wear expected from stringing was identified on the shells. Because of this, the author suggested that these gastropods were most probably used as an appliqué, sewn or fastened with an adhesive (ibid.:27). He also noted that the Ferguson site is the first site in Southeast Texas from which shell ornaments such as these have been reported (ibid.:27).



Figure 1. Location of sites yielding Virgin Nerite as grave goods.

¹Taxonomic classifications used in this report follow Andrews (1981).

DESCRIPTION OF VIRGIN NERITE AT MORHISS

It is the purpose of this paper to document the presence of this type of shell ornament, made from the Virgin Nerite, at another Southeast Texas site. An analysis of the shell assemblage from the Archaic site of Morhiss (41VT1) located in Victoria County, approximately 75 miles from Fort Bend County, has yielded evidence of the Virgin Nerite as shell jewelry. This type of shell was found in association with four burials from the site, totaling 19 shells. In all cases, the Virgin Nerite was found with *Marginella* beads. Identification of these shells as *Neritina (Vitta) virginica* was made by comparing them to descriptions from Andrews (1981) and specimens present in the Zooarchaeological Research Collection at Texas A&M University. The shells ranged in length from 8.8 mm to 11 mm and in width from 6.4 mm to 8.7 mm (Table 1). The periostracum, usually brightly and diversely colored in this species, was only visible microscopically on six specimens at the juncture of the inner and outer whorl.

Virgin Nerite shells present at the Morhiss site had all been processed in a similar manner. Each bead exhibits a ground facet on the side of the outer whorl opposite the aperture (Figure 2). The aperture is present in each case and the spire is intact. The perforations ground into the shells are oval in shape and measure 3 mm in length and 2 mm in width. All *Marginella* beads present with the burials were also processed in the same manner. However, the Virgin Nerite found at the Ferguson site was processed differently so that the columellae were sectioned and the apertures were obliterated.

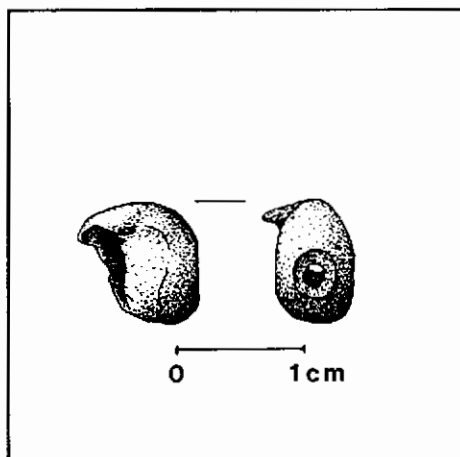


Figure 2. Virgin Nerite at 41VT1 showing localized modification of the outer whorl. Note intact aperture of shell.

VIRGIN NERITE AS GRAVE GOODS

Virgin Nerite has been tentatively identified as a grave good at the Ferguson site and has been definitely identified at Morhiss. In both cases the shells had been manufactured into ornaments and were associated with other types of shell jewelry. However, Nerite occurs at a higher frequency at the Ferguson site. Burial 2, age and sex unknown, had 40 ground gastropods, in addition to over 210 shell disk beads (Gregg, 1993:22,26). Therefore, Virgin Nerite composed approximately 19% of the shell ornament assemblage interred with that individual from the Ferguson site. The four burials from Morhiss that had Virgin Nerite shell yielded a total of 360 shells, including *Marginella*. Virgin Nerite accounted for only 5.2% of the shell ornament assemblage associated with these four burials. On an individual burial basis, the percentage of Virgin Nerite found with the burials at Morhiss ranges from a low of 2.1% to a high of 25% of the total shell grave good assemblage found with each burial (Table 2).

Unfortunately, age and sex data of all known individuals interred with Virgin Nerite are deficient. Demographic information was not available for Burial 2 at the Ferguson site, and, due to the fragmented nature of the remains, all that is known about the four individuals from Morhiss is that they were of an adult age. Therefore, it is not possible to assess any type of social status that may be related to the occurrence of the uncommon Virgin Nerite with Archaic burials.

NERITE SHELL ORNAMENT FUNCTION

Researchers at the Ferguson site speculated that, based on the fragility of the shell, the ground gastropods recovered with Burial 2 were not strung as a bracelet (Gregg 1993:27). Gregg suggested that the shells were used as an appliqué, either by sewing or an adhesive. However, the archaeological specimens did not exhibit evidence to support either of these suggestions, possibly because caliche deposits may have obscured some of the indications of fastening (ibid.:27).

Macroscopic and microscopic analyses of Virgin Nerite beads from the Morhiss site indicate that these artifacts were not used as bracelet or necklace components. No microscopic polish or abrasion traces not attributable to manufacture were observed. Unlike specimens from the Ferguson site, specimens at Morhiss were not as heavily encrusted with calcium carbonate that would hinder observation of these traces.

Table 1. Dimensions of Virgin Nerite at 41VT1 (mm)

<u>Field Specimen No.</u>	<u>Length</u>	<u>Width</u>
5177	9.9	8.3
	10.7	8.6
	11.0	7.6
	9.8	7.6
	9.2	8.7
	9.0	8.1
	9.7	8.0
	-	-
5194	10.3	8.4
5266	8.8	6.4
	9.7	8.1
	10.0	8.0
	9.4	7.1
	9.7	7.8
5271	10.5	8.4
	8.9	7.5
Average Length = 9.8 mm		s.d. = 0.7
Average Width = 7.9 mm		s.d. = 0.6

Table 2. Percent of Virgin Nerite Composing Shell Ornament Assemblage per Burial at 41VT1.

<u>Burial #</u>	<u>#Marginella</u>	<u># Nerite</u>	<u>% Nerite</u>
211e	83	8	9.6
213	12	3	25.0
216	37	2	5.4
219	292	6	2.12

Microscopic remnants of the periostracum were also present on some of the Nerite beads.

It is presently felt that Gregg's (1993:27) initial suggestion that the shells were used as appliqué may be a plausible explanation for the Virgin Nerite specimens at Morhiss. The associated *Marginella* shell beads at Morhiss were also modified in an identical manner being lightly ground to perforate the last whorl adjacent to the aperture and exposing the columella.

The location of modification on both the Nerite and *Marginella* at Morhiss is such that the string is directed behind the columella and out through the aperture. If these shells were strung as part of an appliqué or were perhaps part of a cape or sash, this method of suspension would position the shell so that the aperture would not be visible. Only the outer body of the shell bead would be observed. No residues of asphaltum or other adhesive were noted. Further, no wear may be expected if the shells were firmly affixed to or incorporated into some type of garment. Evidence from Morhiss strongly suggests that *Marginella* and Nerite were used in the same manner.

Further possibilities of the function of Virgin Nerite beads at Morhiss may be gained by comparisons of the natural color variation of both *Marginella* and Nerite shells. Common *Marginella* shells vary from a bright golden yellow to an orange brown and exhibit a highly polished surface (Morris 1973:232). Other color variation includes a polished cream, yellowish, or grayish tan (Andrews 1981:61). Virgin Nerite is well-known for its distinctive brightness and contrast. Color patterns commonly include various shades of gray-green, tan, or yellow, marked with a variety of lines, circles, or dots, often being very banded (Morris 1973:128). Andrews (1981:8) noted a wider variety of colors including olive, white, gray, red, yellow, purple, or black with dots or white waves, stripes, dots, lines, or other mottled surface patterns. Periostracum remnants on Virgin Nerite beads from Morhiss include the following colors: black or dark brown with white spots or splotches, black or dark brown with wavy lines, alternating white and gray lines or bands, and alternating thin, deep red lines and wider white lines.

Examination of burial photographs from Burials 211e and 219 at Morhiss that included both Common *Marginella* and Virgin Nerite beads indicate that the *Marginella* beads appear to be in distinct patterns such as may be associated with a cape or sash with a solid background of these shells. It may be that this species was used as the foundation of a design in which the more colorful Virgin Nerite shells were incorporated as accent pieces or to break up the

monotony of the overall pattern created by the *Marginella* beads.

DISCUSSION AND CONCLUSIONS

Although the Virgin Nerite has now been reported as grave goods associated with five Archaic burials from two Southeast Texas sites, there are some notable differences in the accounts. The most significant contrast in both sites yielding Virgin Nerite as grave goods relates to the frequency at which the shells were used as ornaments. Virgin Nerite was recovered more frequently at the Ferguson site than at Morhiss. The relative positions of the sites to the coast does not explain this frequency difference, because both sites are located at approximately the same distance from the strand line of the Texas coast. Morhiss is located 40 miles inland, while the Ferguson site is situated 50 miles inland. In addition, Morhiss is actually closer to coastal waters because it is only 20 miles from the northernmost area of the San Antonio Bay (Campbell 1976:81). Virgin Nerite is known to travel up rivers (Morris 1973:128), so it is possible that more Nerite travelled up the San Bernard River (on which the Ferguson site is located) than up the Guadalupe River (where Morhiss is located). It should also be pointed out that although Nerite can be collected from both shallow ocean and riverine localities, the shells are more colorful in brackish water than in saline water (Andrews 1981:8). Therefore, if these shells were being collected as accent pieces (as discussed earlier) then it would make more sense for them to have been collected in rivers, especially in the region opening to the ocean. It is also very possible that, at Morhiss, the Virgin Nerite shells were collected fortuitously as *Marginella* gastropods were being collected, especially as both types inhabit shallow, bay waters and grassy flats.

The other significant difference between the Nerite found at both Southeast Texas sites relates to the manufacturing process. At the Ferguson site the shells were ground flat on one side, thereby obliterating the aperture and sectioning the columella. At Morhiss, the aperture and columella were preserved but a perforation was ground into the opposite outer whorl. Regardless of the manufacturing differences, the shells do seem to have been used in the same manner, most likely appliquéd to clothing.

Accounts of Virgin Nerite in Southeast Texas have been limited to the Ferguson and Morhiss sites which date to the Archaic. However, the Nerite genus has been identified at another site in Texas, Horn Shelter Number 2 (41BQ46) (Redder 1985; Redder and Fox 1988). Redder and Fox (1988:7) noted that

over eighty beads manufactured from the species *Neritina reclinata* (the Olive Nerite) were found associated with a double burial (an adult and a twelve year old child). Although these specimens are a different genus from those identified at Ferguson and Morhiss, it is apparent from both descriptions and photographs (ibid.:7) that these specimens were modified by exactly the same technique as described for those at Morhiss. The Horn Shelter 2 burials have been established as being Paleo-Indian in age, which adds a significant time depth to the use of Nerite as ornamentation and its inclusion as part of a

burial assemblage in Texas.

ACKNOWLEDGMENTS

The authors would like to acknowledge the Texas Archeological Research Laboratory for access to the shell collection from Morhiss. In addition, we thank Barry W. Baker, D. Gentry Steele, and Laurie S. Zimmerman for helping to identify the Virgin Nerite. Lynne O'Kelly is also thanked for providing the illustration of the Virgin Nerite bead.

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COASTAL BEND ARCHEOLOGICAL SOCIETY

Another local archaeological society our readers may find interesting to participate in is the Coastal Bend Archeological Society, recently risen from a short functioning hiatus, and now a very active group.

A recent business meeting vote has returned their monthly meeting to the first Wednesday of each month. The meetings will be in the Hilltop Community Center, Corpus Christi, at 7:00 o'clock p.m.

Contact Larry Beaman, 303 Rolling Acres Dr., Corpus Christi, Texas 78410 to confirm time and place and for further information.