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

Helen Danzeiser Dockall and John E. Dockall

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 periostrium 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 (Pleurotecta [leptoguana] apiocinia). 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) virginiae, the Virgin Nerite. However, the author noted that the walls and columnella 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 columnella (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).

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

Figure 1. Location of sites yielding Virgin Nerite as grave goods.
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 *Nerita (Vulva) virginica* was made by comparing them to descriptions from Andrews (1981) and specimens present in the Zoarchaeological 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 often 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 sequestered and the apertures were obliterated.

![Figure 2. Virgin Nerite at 41VT1 showing localized modification of the outer whorl. Note intact aperture of shell.](image)

**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 applique, either by sewing or an adhesive. However, the archeological specimens did not exhibit evidence to support either of these suggestions, possibly because calcite 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)

<table>
<thead>
<tr>
<th>Field Specimen No</th>
<th>Length</th>
<th>Width</th>
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</thead>
<tbody>
<tr>
<td>5177</td>
<td>9.9</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
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<tr>
<td>5154</td>
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<td>8.4</td>
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<tr>
<td></td>
<td>8.9</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Average Length = 9.8 mm  
Average Width = 7.9 mm  
s.d. = 0.7  
s.d. = 0.6

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

<table>
<thead>
<tr>
<th>Burial #</th>
<th>#Marginella</th>
<th>#Nerite</th>
<th>% Nerite</th>
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<tr>
<td>211c</td>
<td>13</td>
<td>8</td>
<td>9.6</td>
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<tr>
<td>213</td>
<td>12</td>
<td>3</td>
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</tr>
<tr>
<td>210</td>
<td>37</td>
<td>2</td>
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</tr>
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<td>219</td>
<td>292</td>
<td>6</td>
<td>2.12</td>
</tr>
</tbody>
</table>
Microscopic remnants of the periostreum were also present on some of the Nerite beads.

It is presently felt that Greggs's (1993:27) initial suggestion that the shells were used as an anvil may be a plausible explanation for the Virg-in Nerite specimens at Morbias. The associated Marginella shell beads at Morbias were also modified in an identical manner being lightly ground to produce the last whorl adjacent to the aperture and exposing the columnella. The location of modification on both the Nerite and Marginella at Morbias is such that the string is directed behind the columnella and out through the aperture. If these shells were strung as part of an aplique or were perhaps part of a cape or tassel, 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 or incorporated into some type of garment. Evidence from Morbias strongly suggests that Marginella and Nerite were used in the same manner.

Further possibilities of the function of Virg-in Nerite beads at Morbias may be gauged 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 (1981:17) noted a wider variety of colors including olive, white, gray, red, yellow, purple, or black with dots or white wavy, striped, dots, lines, or other ridged surface patterns. Periostracum remnants on Virgin Nerite beads from Morbias 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 wavy white lines.

Examination of burial photographs from Burials 211 and 219 at Morbias 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 tassels 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 amulets. Virgin Nerite was recovered more frequently at the Ferguson site than at Morbias. 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 strait line of the Texas coast. Morbias is located 40 miles inland, while the Ferguson site is situated 50 miles inland. In addition, Morbias is actually closer to coastal waters because it is only 20 miles from the northeastermost 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 traveled up the San Bernard River (on which the Ferguson site is located) than up the Guadalupe River (where Morbias 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 1981:4). 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 Morbias, the Virgin Nerite shells were collected fluvially as Marginella gastropods were collected, especially in both types inhabiting shallow, muddy waters and brackish 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 columnella. At Morbias, the aperture and columnella 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 applied to clothing.

Accounts of Virgin Nerite in Southeast Texas have been limited to the Ferguson and Morbias 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 reclivata* (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

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Andrews, J.

Campbell, T.N.

Gregg, R.L.

Morris, P.A.

Redder, A.J.

Redder, A.J., and J.W. Fox

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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.