

APPENDIX G:
CERAMIC LOT DESCRIPTIONS

Marcey Creek Lot (MA1)



Sample Size: 1 body sherd

General Provenience: Site 7NC-J-228, Block A

Temper and Inclusions: The single sherd in Lot MA1 was heavily tempered with crushed steatite, which comprised over 20 percent of the paste. Numerous fine fragments of pink (5YR 7/4) clay as well as pieces of deep red (10R 4/6) hematite were visible, contrasting sharply with the pale matrix. Occasional pebbles, including one 3.5 mm, also were seen in the paste.

Texture: This vessel was slightly gritty with an underlying waxy or soapy feel imparted by the steatite temper.

Color: Exterior: Munsell 7.5YR 6/4 light brown mottled with dark and light gray fragments of the temper. Interior: 7.5YR 6/3 to 7.5YR 6/4 light brown mottled with dark and light gray fragments of tempering. Core: 7.5YR 4/1 dark gray that blended into 7.5YR 5/4 brown.

Surface Treatment: Exterior: Partially smoothed, weathered. Interior: Smoothed.

Decoration: None

Form: The sherd was 6.5 to 8 mm thick, but was too small to provide additional information on form.



Thin-section Data: Sample 806-1 (NNO-1) exhibited a cryptocrystalline matrix tempered with steatite fragments (25.65 percent). The average size of the steatite fragments was 2 mm, and individual fragments ranged from 1-4 mm in size. Natural inclusions (22.37 percent) within the matrix were poorly sorted and included quartz, feldspar, olivine, mica, and iron oxide. Voids (13.82 percent) consisted primarily of drying cracks oriented both parallel (larger cracks) and perpendicular (fine cracks) to the long axis of the sherd. Fabric orientation was random in the sherd.

Discussion: Marcey Creek ware is considered to be one of the earliest ceramic wares in the Delmarva. A temporal span of 1200 to 700 BC has been suggested for this ware in Delaware (Custer 1994). Marcey Creek ware typically is heavily tempered with steatite, or soapstone, comprising 25-50 percent of the paste. In form, it is characteristic of early ceramic container technology with a flat bottom often bearing mat impressions, a generally rectangular vessel shape, thick vessel walls, and a large vessel orifice to height ratio. Vessel heels often protrude and sometimes lug handles were placed on the vessel. It was primarily formed with a slab base and wide coil body construction, although examples of hand-modeled vessels exist (Egloff and Potter 1982). In paste and thickness, the current sherd appeared to be a classic Marcey Creek sherd, although little information about vessel form was available.

Coulbourn Lot (CC1)

Sample Size: 1 body sherd

General Provenience: Site 7NC-J-228, Block B

Temper and Inclusions: Lot CC1 was tempered with crushed pieces of clay that were reddish-orange in color (2.5YR 5/6 to 2.5YR 5/8 red). A small amount of fine sand/grit was also visible. The paste appeared contorted along the breaks with angular chunks of clay protruding and was mottled with lines of varying colors created by the lack of mixing of the different components.

Texture: While this lot had a slightly gritty texture due to the inclusion of the fine sand/grit, the overall effect was of a “pasty” vessel. The exterior exhibited a slight sheen on the surface.

Color: Exterior: Munsell 5YR 5/4 reddish brown. Interior: 7.5YR 6/4 light brown to 7.5YR 5/4 brown. Core: From 5YR 3/1 very dark gray in the interior half of the body to 7.5YR 4/2 brown mottled with 7.5YR 5/6 strong brown, 7.5YR 7/4 pink, and 2.5YR 5/6 red on the exterior portion.

Surface Treatment: Exterior: Deeply impressed with cordage that was oriented parallel to the coils. These ranged in size from .5-1.5 mm wide and were spaced approximately 2.0 mm apart. Cordage was formed with a final S-twist. Interior: Moderately impressed with cordage (less deep than on the exterior) that was oriented perpendicular to the coils.

Decoration: None.

Form: The single sherd was 8.0-9.0 mm thick, and had broken along a coil line.



Thin-section Data: Sample 413-1 (NNO-2) exhibited a cryptocrystalline matrix tempered with a moderate quantity (19.89 percent) of ceramic sherd fragments (grog). The cryptocrystalline matrix was indicative of a higher firing temperature such that the lattices of the clay minerals in the matrix were fused and the original structure was destroyed. The grog temper was sub-rounded in shape and ranged in size from 1 to 5 mm (average grain size was 4 mm), and exhibited extremely similar matrix characteristics to that of the clay it was used to temper. Natural inclusions (10.22 percent) were poorly sorted and consisted of feldspar, olivine, and iron oxide. Voids (16.48 percent) included rounded pores encircling large minerals and numerous drying cracks oriented parallel to the long axis. Fabric orientation was generally parallel to the long axis of the sherd; however, the impression of orientation was partially due to the orientation of the drying cracks.

Discussion: Coulbourn is a clay-tempered ware, first defined by Artusy (1976). Its appearance on the Delmarva Peninsula has been considered unique in the Middle Atlantic region. The temporal span for the appearance of Coulbourn ware (and its cognates, Nassawango ware and Wilgus ware) was 400 BC to AD 1 (Custer 1994). Coulbourn vessels are conoidal in shape, coil-constructed, and exhibit cord- or net-impressed exterior surface treatments. The current sherd exhibited characteristics typical of cord-marked clay-tempered vessels recovered from other sites in Delaware.

Mockley Lot (MO1)



Sample Size: 9 sherds (1 rim, 8 body/base)

General Provenience: Site 7NC-J-227, Block H (n=7) and Block K (n=2)

Temper and Inclusions: Lot MO1 was tempered with large fragments of thick shell. These leached out and left holes in the body and on the surfaces that ranged in size from 1.0 to 6.0 mm wide. Sand was also present. Occasional dark gray areas (5 to 7 mm in diameter) were noted in the body of this vessel, possibly reflecting organic content in the paste. Small fragments of hematite/clay also were visible, and the paste was moderately mixed.

Texture: The texture of this vessel was smooth with a slight grittiness created by the sand inclusions.

Color: Exterior: Munsell 5YR 6/6 reddish yellow to 5YR 5/3 reddish brown to 10R 5/6 red. Interior: 7.5YR 5/3 brown to 5YR 5/3 reddish brown to 5YR 6/4 light reddish brown. Core: 5YR 2.5/1 black blending to 5YR 5/2 reddish gray.

Surface Treatment: Exterior: Deeply marked with fine S-twisted cordage spaced 1.5 to 3.0 mm apart. The area near the rim edge, however, was smoothed. Interior: Smoothed and /or scored or scraped. This scraping was done with an implement that left fine lines as well as some deeper gouges up to 2.0 mm wide. The surface near the rim was smoothed.

Decoration: None.

Form: Lip: Smoothed flat, 3-3.5 mm wide. Rim: Straight in profile. The vessel wall thinned as it rose to the lip; at 2 cm below the rim, the thickness was 7 mm. Base/Body: The sherds were 7 - 8.5 mm thick. Breaks along coil lines were present. There was only slight overlapping of one coil onto the next across these joints. A fragment of a mend hole was present on one sherd. Indentations on the exterior surface suggested that the edge of the paddle had been used, perhaps to aid in shaping the vessel.



Thin-section Data: Sample 260-2 (NNO-3) exhibited a fine-grained micaceous matrix with several voids suggesting shell temper (5 percent). Natural inclusions (25.63 percent) were moderately poorly sorted and consisted of quartz, feldspar, chert fragments, olivine, biotite, mafic rock fragments, and iron oxide. Other voids (14.38 percent) included numerous linear drying cracks oriented parallel to the long axis, as well as irregular voids where minerals had been plucked from the matrix. Fabric orientation was parallel to the long axis of the sherd.

Discussion: Mockley ware is defined by the predominant use of shell as the tempering material and the range of surface treatments, including cord-marking, net-impressing, and smoothing (Stephenson and Ferguson 1963). Mockley ware is coil-constructed and vessels are generally conoidal in form with flattened or impressed lips. The time range suggested for this ware in Delaware extends from AD 1 to at least AD 600 (Custer 1994). It also has been proposed that forms of this ware extended to AD 1000 on the southern Delmarva Peninsula (Custer 1989). The current example was cord-marked over the body, but smoothed in the area of the rim.

Townsend Lot 1 (Town1)



Sample Size: 2 sherds (1 base, 1 body)

General Provenience: Site 7NC-J-227, Block H

Temper and Inclusions: Lot Town1 was heavily tempered with finely crushed shell that had leached out and left behind holes that were visible in the core of the sherds as well as on all of the surfaces. Fine sand and grit with minute flecks of mica were also visible.

Texture: This vessel was smooth with only a slight roughness caused by the included sand/grit.

Color: Exterior: Munsell 2.5YR 4/4 reddish brown. Interior: 2.5YR 4/4 reddish brown (mottled with thin areas of 2.5YR 3/1 dark reddish gray to 2.5YR 2.5/1 reddish black on one sherd). Core: 2.5YR 3/2 dusky red.

Surface Treatment: Exterior: Smoothed plain. Interior: Smoothed with faint, fine striations from light scraping with an implement.

Decoration: None.

Form: One sherd in this lot was a basal sherd. This was a 7-8 mm thick, disk-shaped “starter” coil to a conoidal vessel. The body sherd was 6 mm thick. Both sherds appeared to be broken along coil lines. No information was available about the vessel size.



Thin-section Data: Sample 876-5 (NNO-4) exhibited a cryptocrystalline matrix that appeared to have been tempered with shell fragments (20.67 percent). Due to leaching and chemical weathering, the evidence of shell temper was restricted to curvilinear voids throughout the matrix. The cryptocrystalline matrix was indicative of a higher firing temperature such that the lattices of the clay minerals in the matrix were fused and the original structure was destroyed. Average length of the curvilinear voids was 4.0 mm, and leached shell fragments ranged in size from 1.5-5.0 mm. Natural inclusions (19.33 percent) were poorly sorted and consisted of weathered quartz, feldspar, olivine, biotite, rock fragments, and hematite. Voids (10 percent), apart from those left by leached shell, were restricted to small rounded pores and irregular tears. Fabric orientation was generally parallel to the long axis, but spiraled around large minerals and temper. Fabric orientation was parallel to the long axis of the sherd.

Discussion: Townsend is a Woodland II ware that was originally described by Blaker (1963) and is found across most of the Delmarva Peninsula. The vessels have thin walls and are tempered with crushed shell. They also are characterized by fabric-impressed or smoothed surface treatments and incised and corded decorations. In decoration style, Griffith (1977) found that the more complicated incised and multi-cord designs pre-dated the simpler direct cord and cord-wrapped stick treatments. The current sherds had a distinctive red color and paste attributes that made them stand out from the other shell-tempered sherds.

Townsend Lot 2 (Town2)



Sample Size: 3 body/base sherds

General Provenience: Site 7NC-J-227, Block K (n=2) and Block N (n=1)

Temper and Inclusions: Lot Town2 was tempered with crushed shell that had leached out leaving holes on all surfaces as well as thorough out the body of the vessel. Fine sand was also visible.

Texture: These sherds were soft and were heavily weathered. They were pasty in texture with only a slight roughness to them due to the fine sand in the bodies.

Color: Exterior: Munsell from 7.5YR 6/4 light brown to 5YR 5/4 reddish brown to 2.5YR 6/6 light red. Interior: 7.5YR 6/4 light brown to 5YR 5/4 reddish brown. Core: 7.5YR 5/4 brown to 7.5YR 5/6 strong brown; or, 2.5YR 6/6 light red mottled with 2.5YR 4/1 dark reddish gray and 7.5YR 7/4 pink.

Surface Treatment: Exterior: The exterior surface treatment could not be determined due to the erosion of the exterior surface of these sherds. Interior: The interior surface was smoothed. Faint parallel lines were visible on one sherd. These were probably the result of scraping with an implement.

Decoration: None.

Form: The sherds ranged from 4.5-6.0 mm in thickness. Coil breaks were visible but generally the weathering of the sherds had smoothed most edges.



Thin section Data: Sample 588-6 (NNO-5) exhibited a fine-grained micaceous matrix. Natural inclusions (33.85 percent) were poorly sorted and consisted of quartz, feldspar, chert fragments, olivine, and iron oxide. Voids (16.92 percent) included irregular voids where minerals had been plucked from the matrix and numerous thin drying cracks oriented parallel to the long axis of the sherd. Some of the larger voids were infilled with carbonate cement. Some of the thin voids may have been due to the leaching of shell that may have been used as temper. Fabric orientation was generally parallel to the long axis, but spiraled around large minerals.

Discussion: Although the sherds were highly weathered and the exterior surface treatment was not identifiable, they were included as Townsend due to their thinness and crushed shell temper. Although the shell temper voids were clearly visible in the sherds, the temper voids were not as identifiable in thin section due to the small size of the fragment that was sectioned. Slight variations in body color and in the quantity of sand in the sherds suggested that more than one vessel could be represented in this lot.

Minguannan Lot 1 (MI1)

Sample Size: 95 sherds (8 rim, 87 body/base)

General Provenience: Site 7NC-J-227, Block N (n=87), Block J and vicinity (n=5), and Block G (n=3)

Temper and Inclusions: Lot MI1 was tempered with crushed quartz. These ranged in size from 1.0-3.0 mm with occasional pieces up to 5.0 mm in length. These angular fragments appeared to comprise approximately 5 percent of the paste. The quartz temper varied in clarity; some fragments were clear while others were opaque. Fine sand was also included and a few pieces up to 2.0 mm were observed. This sand appeared to constitute approximately 10 percent of the paste. Also visible was a small amount of very fine mica that gave a subtle sparkle to the paste.

Texture: The vessel surface was somewhat gritty because of the sand content. This was more noticeable on the sherds that were slightly weathered. Where the smoothed surfaces were still intact, the paste was smoother to the touch with the rough surfaces of the temper less evident.

Color: Exterior: Munsell ranging from 5YR 6/6 reddish yellow to 5YR 5/6 yellowish red to 5YR 5/4 reddish brown to 7.5YR 4/3 brown. A few sherds were mottled with 7.5YR 6/6 reddish yellow. Two sherds were smudged with a very dark black (5YR 2.3/1 black). Several sherds had fainter smudging (5YR 4/1 dark gray to 5YR 3/1 very dark gray). Interior: 5YR 5/6 yellowish red to 5YR 5/4 reddish brown to 5YR 4/4 reddish brown. Core: A thin layer of 5YR 6/6 reddish yellow on the interior surface, 5YR 3/2 dark reddish brown

blending to 5YR 4/4 reddish brown, then a thin layer of 5YR 3/2 dark reddish brown, then a final very thin layer of 5YR 5/6 yellowish red on the exterior surface.

Surface Treatment: Exterior: The exterior was impressed with smoothed over cordage. It was formed with a final Z-twist. In some areas the exterior surface had weathered and was eroded away. Interior: The interior surface was smoothed. Some sherds exhibited faint striation lines or marks suggesting that they had been initially smoothed with a tool. But even these were ultimately smoothed over to make a uniform surface.



Decoration: The rim of Lot MI1 was impressed with cord-wrapped cord or stick. The impressions along the folded collar at the rim were at an oblique angle (top right) to the lip. They were fairly evenly spaced, approximately 6 mm apart from one another. Below the collar, horizontal rows of these impressed cord-wrapped cords/sticks ringed the vessel. These were spaced even closer together, approximately 2 mm apart.

Form: Lip: The lip edge was only 2 mm wide and was smoothed and flattened. It slightly protruded on the exterior of some sherds suggesting that it had been smoothed from the interior outward. Rim: The rim of Lot MI1 was formed with a folded collar which varied from 1.5 cm to 2.1 cm in height. The collar was 7 mm thick at its base and became gradually thinner as it rose to the lip edge. Below the collar, the vessel was 5 mm thick. The collar appeared straight in profile. However, the vessel flared slightly below the collar toward the shoulder of the vessel. Approximately 30 percent of the rim was represented. The vessel diameter was 23 centimeters, based on the rim curvature. Base/Body: The sherds ranged in thickness from 3.5mm to 8mm. Vessel Capacity: Using the formula ($Volume = 0.533 \times Diameter^3 \pm 27\%$) that Mounier (1987) derived for estimating volume of conoidal vessels based on rim diameters, the vessel would have held roughly 6.5 liters, or 1.7 gallons.



Thin-section Data: Sample 548-8 (NNO-6) exhibited a fine-grained micaceous matrix that was lightly tempered with crushed quartz (6 percent). Natural inclusions (28.08 percent) were poorly sorted and consisted of quartz, feldspar, chert fragments, olivine, biotite, and iron oxide. Voids (10.9 percent) included irregular voids where minerals had been plucked from the matrix and a small number of thin drying cracks oriented parallel to the long axis of the sherd. Some of the larger voids were in-filled with carbonate cement. Fabric orientation was generally parallel to the long axis, but spiraled around large minerals.

Discussion: Minguannan ware was manufactured in Delaware during the Woodland II period (Custer 1989). It was a well-made ware that had thin walls and a compact paste. It was tempered with finely crushed quartz and fine sand/grit. The surfaces were smoothed or cord-marked and the vessels had complex rim decorations which included incising, direct cord, or cord-wrapped cord impressions. Minguannan ware ceramics were generally found in Delaware in the northern Delmarva Peninsula, and often corresponded to the distribution of the earlier Hell Island ware. Lot MI1 was the most complete reconstruction possible from Site 7NC-J-227. This reconstruction helped to point out the possible effects of post-depositional weathering or influences. In several instances, sherds of very different color shades directly mended with each other (544-6 and 699-9, for example). In temper and paste qualities, thinness, surface treatment, and decoration, Lot MI1 matched descriptions of Minguannan ware as outlined by Custer (1985) for the region. However, the presence of a collared rim on a Minguannan vessel is considered a rare attribute.

Minguannan Lot 2 (MI2)



Sample Size: 3 body/base sherds

General Provenience: Site 7NC-J-227, Block N (n=1), Block J (n=1), and Block G (n=1)

Temper and Inclusions: Lot MI2 was tempered with crushed clear quartz fragments. These ranged in size from 2.0-4.0 mm in length and they comprised 5-10 percent of the paste. A small quantity of fine grit/sand was also included and this comprised another 10 percent of the paste. Distinctive small rounded pieces of bright red iron rich fragments (7.5R 5/8 to 4/8 red) were included and contributed to the over-all red body color of this lot since they comprised almost 5 percent of the body of the paste. Minute fragments of mica as well as the fragments of quartz gave a subtle sparkle to this vessel body.

Texture: The fine grit/sand gave a gritty texture to this lot. The paste was compacted and dense.

Color: Exterior: Munsell: Ranged from 2.5YR 5/4 reddish brown, to 10R 5/4 weak red mottled with 10R 3/1 dark reddish gray, to 5YR4/6 yellowish red. Interior: Munsell: Ranged from 2.5YR 5/4 to 4/4 reddish brown. Core: Thin layer of 2.5YR 4/6 red, blending to 2.5YR 4/4 reddish brown, blending midway to 2.5YR 4/6 red toward the exterior surface.

Surface Treatment: Exterior: The exterior surfaces appeared to be smoothed over cord-markings. Interior: The interior surfaces were smoothed plain.

Decoration: None.

Form: The sherds ranged in size from 4.0-5.5 mm in thickness.



Thin-section Data: Sample 98-1 (NNO-7) exhibited a cryptocrystalline matrix with a crushed quartz temper (8 percent). The cryptocrystalline matrix was indicative of a higher firing temperature such that the lattices of the clay minerals in the matrix were fused and the original structure was destroyed. Natural inclusions (28.62 percent) were poorly sorted and consisted of feldspar, chert fragments, olivine, biotite, and iron oxide. Voids (7.04 percent) included irregular voids where minerals had been plucked from the matrix and numerous thin drying cracks oriented parallel to the long axis of the sherd. Fabric orientation was generally parallel to the long axis, but spiraled around large minerals.

Discussion: Lot MI2 was very similar to Lot MI1 in terms of temper, surface treatment, thinness, and compactness of the vessel walls. However, the presence of a larger quantity of iron-oxide inclusions made this lot distinctive.

Minguannan Lot 3 (MI3)



Sample Size: 2 body/base sherds

General Provenience: Site 7NC-J-227, Block N (n=1) and Block F (n=1)

Temper and Inclusions: Lot MI3 was tempered with a heavy quantity of sand/grit, appearing to be approximately 20 percent of the paste. This was primarily fine-grained but occasional pieces of a size up to 1.0 mm were present. Pieces of quartz were also included and comprised less than 5 percent of the paste. These did not appear to be crushed and measured up to 3.5 mm in size.

Texture: The large quantity of sand/grit in the paste gave these sherds a rough, gritty texture. The paste was compact.

Color: Exterior: Munsell: Ranged from 7.5YR 6/4 light brown to 5YR 5/6 yellowish red. Interior: Munsell: 5YR 6/6 reddish yellow. Core: Thin layer of 5YR 6/6 reddish yellow on the interior, 5YR 4/4 reddish brown mottled with 5YR 6/6 reddish yellow in the body, then layer 5 YR 5/6 yellowish red on the exterior.

Surface Treatment: Exterior: The surface treatment of the exterior surface could not be determined. Interior: The interior surface was smoothed plain.

Decoration: Both sherds were impressed with cord-wrapped sticks/cords that encircled the vessel parallel to the rim.

Form: Rim: One sherd was the portion of the rim below the lip edge. This was a collared vessel with a double thickness toward the orifice of the vessel. This collar was impressed horizontally with rows of cord-wrapped stick/cord. The area below the collar was weathered but it suggested that it was impressed vertically with cord-wrapped sticks placed at an oblique angle to the rows above. Base/Body: Below the collar of the rim, the vessel body expanded outward toward a shoulder. The thickness of the sherds ranged from 4.5-6.0 mm. At the folded portion of the collar, the body was 7.0 mm thick.



Thin-section Data: Sample 150-10 (NNO-8) exhibited a cryptocrystalline matrix that was indicative of a higher firing temperature such that the lattices of the clay minerals in the matrix were fused and the original structure was destroyed. Natural inclusions (44.51 percent) were poorly sorted and consisted of feldspar, chert fragments, olivine, biotite, and iron oxide. Voids (10.32 percent) were almost exclusively thin drying cracks oriented parallel to the long axis of the sherd. Fabric orientation was generally parallel to the long axis.

Discussion: Lot MI3 was not tempered with the larger fragments of crushed quartz that characterized Lots MI1 and MI2, but rather was sand-tempered (whether intentionally or naturally). However, like MI1, this lot had a collared rim and was decorated with cord-wrapped stick/cord impressions. The decoration of the current sample appeared to match that described as Minguannan Corded “MC3” by Custer (1985:49) however the collared rim is considered rare for the ware.

Untyped Schist-tempered Lot (SCH1)



Sample Size: 1 body/base sherd

General Provenience: Site 7NC-J-227, Test Unit N87 E490

Temper and Inclusions: Lot SCH1 was tempered with a crushed, mostly black, stone. A small amount of fine quartz sand also was included. The finely fragmented black stone gave a slight sparkle to the paste. The paste appeared iron-rich and dense.

Texture: The sharp, angular temper gave a rough, gritty texture to this vessel.

Color: Exterior: Munsell 5YR 5/4 reddish brown. Interior: 2.5YR 6/4 light reddish brown. Core: Layer of 5YR 2.5/1 black near interior surface, then body of 2.5YR 5/6 red mottled with areas of 2.5YR 4/4 reddish brown and 5YR 3/1 dark reddish gray of varying thickness.

Surface Treatment: Exterior: Weathered, plain. Interior: Smoothed with projections of the angular temper rising above the surface.

Decoration: None.

Form: The single sherd was 6 mm thick. It was broken along a coil line and the coil itself was 18.0-19.0 mm wide. The angle of the coil joint was very steep with very little overlap between coils. The sherd was too small to provide information concerning vessel shape or size.



Thin-section Data: Sample 115-4 (NNO-9) exhibited a fine-grained micaceous matrix tempered with a small quantity of amphibole and feldspar rich metamorphic rock, probably hornblende schist or hornblende gneiss (11.54 percent). The average grain size was 5 mm, while individual grains ranged in size from 2-8 mm. The fragments were generally sub-rounded in shape. Natural inclusions (28.84 percent) were dominated by amphiboles, with lesser amounts of biotite, feldspar, and iron oxide. Voids (16.03 percent) included both small rounded pores and thin drying cracks. Fabric orientation was random.

Discussion: This sherd may represent Dames Quarter ware, which has been characterized as part of the "experimental" group of Early Woodland wares. Dames Quarter is similar to Marcey Creek ware in terms of surface treatment and construction, with a difference being the use of a black stone (gneiss or hornblende) instead of steatite for temper (Wise 1975). Custer et al. (1986) obtained a date of 2955 \pm 90 BP (1005 BC) from charcoal in a hearth feature containing Dames Quarter ceramics at the Clyde Farm site (7NC-E-6a). However, the current sherd is relatively thin and could theoretically be a later ware, such as Shenks Ferry. Therefore, due to its small size, the current example was untyped.

Untyped Sand-tempered Lot (S1)



Sample Size: 2 body/base sherds

General Provenience: Site 7NC-J-227, Block J

Temper and Inclusions: Lot S1 was lightly tempered with fine sand that appeared to comprise five percent of the paste. The majority of these sand grains were 0.5 mm or less in size. The largest was only 1.0 mm wide. Minute flakes of mica also were visible.

Texture: This vessel had an essentially pasty texture but there was some roughness on the surface created by the sand content. The paste was compacted. The very small mica fragments gave a subtle sparkle to the body of the sherds.

Color: Exterior: Munsell: 5YR 6/6 reddish yellow to 5YR 5/3 reddish brown mottled with 5YR 4/2 dark reddish gray. Interior: Munsell: 5YR 5/2 reddish gray mottled with 5YR 4/1 dark gray. Core: Very thin layer of 5YR 5/2 reddish gray on the interior surface, 5YR 2.5/1 black core body, and very thin layer 5YR 6/6 reddish yellow on the exterior surface.

Surface Treatment: Exterior: The exterior of the larger sherd was impressed with cordage that was formed with a final Z-twist. The second sherd was plain on the exterior. It was too small to determine whether it had been smoothed or weathered plain. Interior: The interiors of both sherds were smoothed plain.

Decoration: None identified.

Form: The sherds were very thin, ranging from 2.5 to 3.5 mm.



Thin-section Data: Sample 58-1 (NNO-10) exhibited a cryptocrystalline matrix indicative of a higher firing temperature such that the lattices of the clay minerals in the matrix were fused and the original structure was destroyed. Natural inclusions (40.96 percent) were poorly sorted and consisted of feldspar, chert fragments, olivine, muscovite, and iron oxide. Voids (10.84 percent) included irregular voids where minerals had been plucked from the matrix and numerous thin drying cracks oriented parallel to the long axis of the sherd. Fabric orientation was strongly parallel to the long axis.

Discussion: These sherds indicated a thin, fine vessel, possibly a miniature. The interior and core was reduced or darkened in the manufacturing process. The impression of the cordage on the larger sherd suggested that perhaps it was twined into a pattern but this could not be positively ascertained because of the overall small size of the sherd. Due to their unusually thin bodies, and the small size of the fragments represented, these sherds were left untyped.

REFERENCES CITED

Artusy, R.E.

1976 An Overview of the Proposed Ceramic Sequence in Southern Delaware. *Maryland Archeology* 12(2):1-15.

Blaker, M. C.

1963 Aboriginal ceramics: The Townsend site near Lewes, Delaware. *The Archeologist* 15: 14-39.

Custer, J.F.

1985 Test Excavations at the Webb Site (36CH51), Chester County, Pennsylvania. *Pennsylvania Archaeologist* 55(1-2):42-53.

1989 *Prehistoric Cultures of the Delmarva Peninsula*. University of Delaware Press, Newark, Delaware.

1994 *Stability, Storage, and Culture Change in Prehistoric Delaware: The Woodland I Period (3000 B.C.—A.D. 1000)*. Delaware State Historic Preservation Office, Division of Historical and Cultural Affairs, Dover, Delaware.

Custer, J.F., S.C. Watson, and C.A. DeSantis

1986 *Archaeological Investigations of the Churchman's Marsh Area*. University of Delaware Center for Archeological Research Monograph 5, Newark, Delaware.

Egloff, Keith T., and Stephen R. Potter

1982 Indian Ceramics from Coastal Plain Virginia. *Archaeology of Eastern North America* 10:95-117.

Griffith, D.R.

1977 Townsend Ceramics and the Late Woodland of Southern Delaware. Unpublished Master's Thesis, The American University, Washington D.C.

Mounier, R. Alan

1987 Estimation of Capacity in Aboriginal Conoidal Vessels. *Journal of Middle Atlantic Archaeology* 3:95-102.

Stephenson, R. L. and A. L. Ferguson

1963 *The Accokeek Creek Site: A Middle Atlantic Seaboard Culture Sequence*. University of Michigan Anthropological Papers, No. 20, Ann Arbor, Michigan.

Wise, Cara

1975 A Proposed Early to Middle Woodland Ceramic Sequence for the Delmarva Peninsula. *Maryland Archeology* 11 (1): 21-29.