# REPORT ON THE EXCAVATION OF A BURIAL PIT (7-S-G14b)

by

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This apparently isolated burial pit is located about 373 feet down the northeastern slope of a hill on whose crest was located a burial pit, 2 large refuse pits, and 2 shell deposits. This group of 5 pits on the crest of the hill has been designated the Warrington Site (7-S-G14) (see cover) and is being reported as the first article in this issue. In addition to the 6 pits mentioned, there is a 7th located 281 feet south of the crest of the hill in the Rehoboth Bay shore cliff - about one half of which has been eroded away by wave action. Whether all 7 pits so far located should be considered as one site is questionable, but the plan at present is to designate the 5 pit area as (7-S-G14), the Rehoboth Bay shore cliff as (7-S-G14a), and the burial pit to the northeast of the crest as (7-S-G14b). (See cover.)

All of these pits are located in the same large field on the farm in Warrington's Neck owned and operated by Francis Warrington, Jr., who granted us permission to excavate there. Other burial and/or refuse pits may be present in this field but because of their possible depth below the plow-line have not been detected.

The burial pit (7-S-G14b) to be reported here as already stated is located 373 feet in a northeasterly direction from the 5 pits on the crest of the hill and 60 feet west of the edge of a swamp or marsh containing open water, which today has a blocked outlet to Rehoboth Bay. Probably this outlet was navigable for canoes at the beginning of settlement by Europeans.

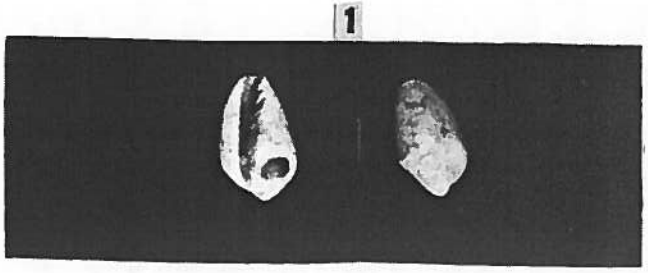
This pit was located by accident on May 16, 1963. Mr. Warrington was pushing out with a bulldozer a medium sized hackberry tree that stood about 40 feet up the slope from the present edge of the marsh when the blade dug into shells. He immediately notified J. L. Parsons and D. Marine, who were working on the pits at the crest of the hill. We investigated at once and through a hole about 3 feet in diameter removed some oyster and clam shells and exposed a human hip bone (ilium) under the shell layer. We immediately refilled the hole and marked the site.

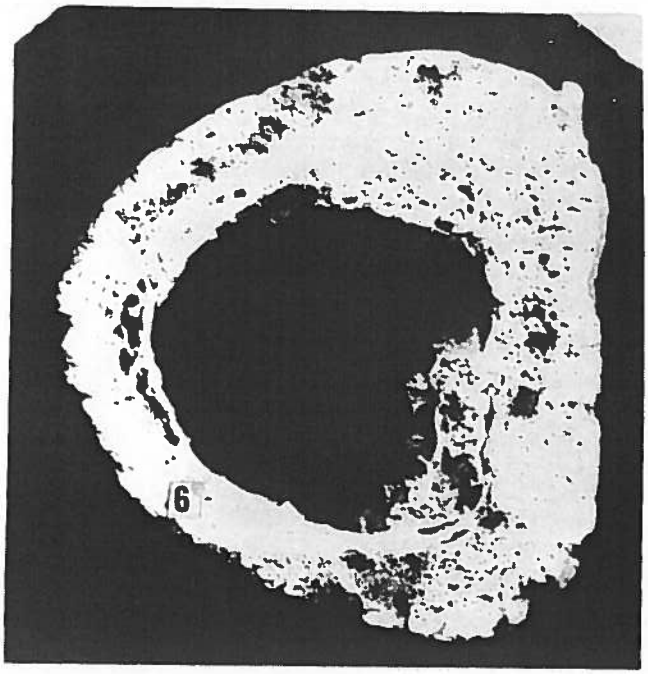
On November 23rd Tull and Marine opened the burial pit again by removing the top soil (about 10 inches deep) over an area 5 x 8 feet, and then the shell layer, which averaged 6 - 8 inches thick. The shells were intact but somewhat softened with no signs of fire damage. The fill dirt immediately above and around the skeleton was removed and examined for artifacts, with the following results:

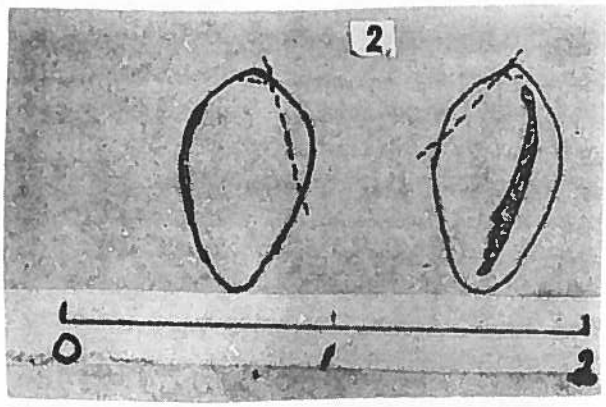
Stone artifacts none: 3 flakes, 2 rejects (jasper pebbles from which chips had been struck), 4 jasper pebbles and 4 broken or fire cracked stones.

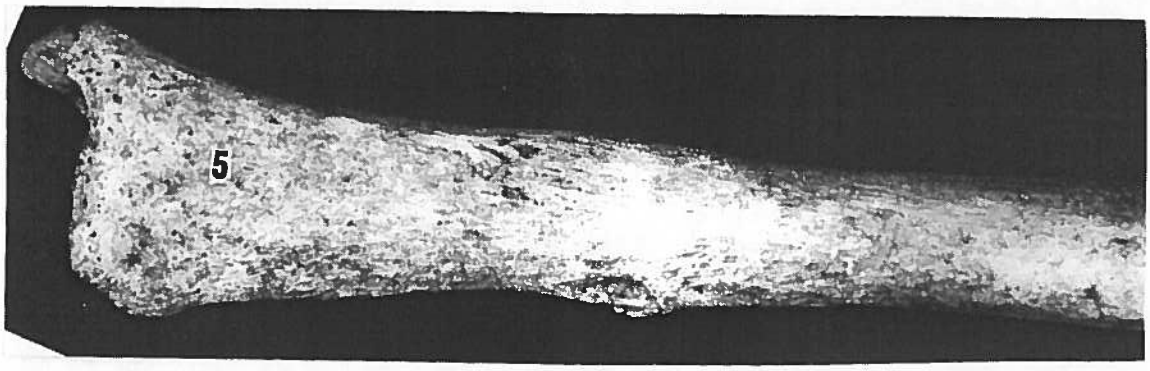
Bone: 5 pieces of turtle plate, one 3 inch fragment of a long bone (probably deer), 2 intact and one fragment of deer molar teeth.

Pottery: 7 widely scattered fragments - all shell tempered but none matching, of a dark gray color and representing 3 pots. One of these sherds measuring 1-5/6 x 1/2 x 5/16 inches and apparently an undecorated rim sherd



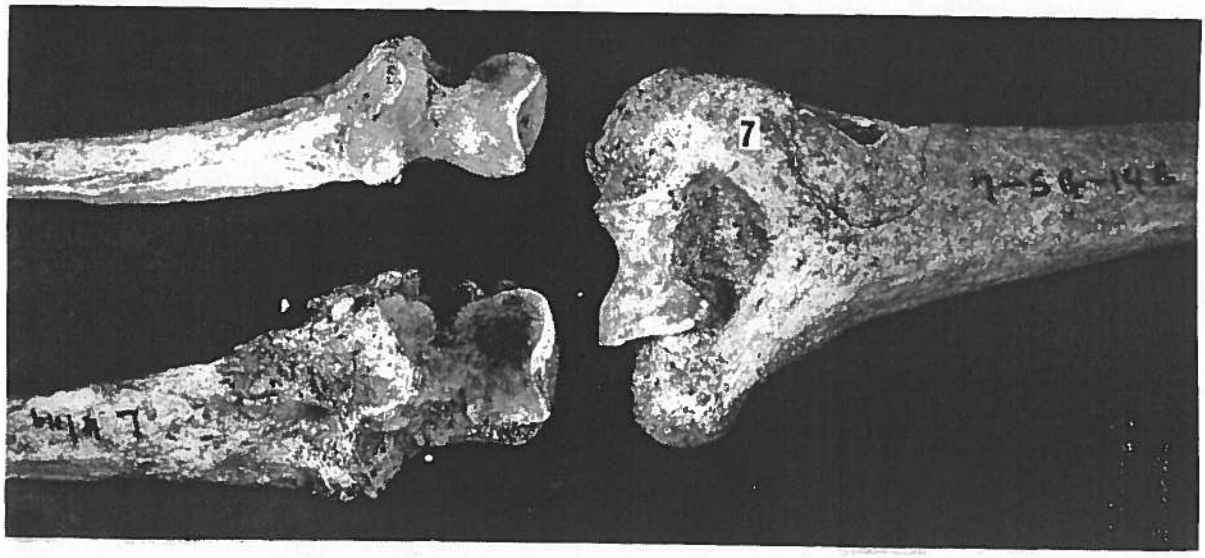




PLATE III. No. 1, Marginella apicina, front and back view showing the 4 ridges in the upper end of aperture and the rubbed hole through the large whorl. No. 2, drawing much enlarged; dotted lines indicate the rubbed holes. No. 5, left tibia with slight swelling due to new bone formation. No. 7, left humerus and ulna with a normal left Indian ulna for comparison. No. 6, cross section of No. 5, through the callus showing nearly intact marrow cavity with irregular thickening of shaft bone and many large and very irregular cavities (Haversian canals?).

has separated along the coil line from the coil below.

Charcoal in small fragments was widely scattered throughout the fill dirt but there was no evidence of fire in the pit. All the above described midden material found in the fill dirt above and around the skeleton we thought could be accounted for as incidental to the refilling operation.

The skeleton had been placed on the leveled, yellow sand floor of the pit in a horizontal or extended position with the head toward the south just as was found in pit No. 1 (see first article in this issue) at the crest of the hill, except that there was no pavement of shells under the skeleton. All the bones were in their normal position with the arm bones fully extended and closely paralleling the trunk bones. The leg bones also were fully extended and in normal alinement. The overall length of the skeleton was 5'6". The bones were soft, but the entire skeleton was recovered except the toe bones of the left foot.

On removal of the skull 72 small bead-like polished white shells (Plate III, Nos. 1 and 2) were found in a midline pile mixed with sand and about 2 inches above and in the same plane as the base of the occipital bone. These shells are quite uniform in size, measuring on the average 14/32" high x 7/32" wide x 8/32" thick, and somewhat egg shaped, with the aperture extending nearly the full length and with 4 plaits or ridges at the upper end of the aperture on the inner lip (columella). There is a hole rubbed through the body whorl and exposing the inner whorls opposite the aperture and below the low spire (Plate III, No. 2 - dotted line on drawing). In each shell the artificial hole had been made in the same location. Each shell was filled with dirt. We succeeded, with some difficulty, in pushing a 1/32" wire through the upper end of the aperture and out at the artificial opening, and vice versa. We therefore think these worked small shells could have been used as shell beads and that the rubbed hole may have been made for the purpose of stringing them. These shells were the only grave goods found, and they have been identified as Marginella apicina. If the North Carolina coast, as usually stated, is the northern limit of this species, it would imply trading or travel over a considerable distance.

The skull is intact, small and slightly dolicocephalic. There is a 2" wide band extending across the frontal bone (Plate IV, No. 3) beginning about 1/2" above the orbital rims and extending to a possible hair line that contains numerous small irregular healed pittings or depressions. They appear to be confined to the outer table and are localized to the above described band of the frontal bone. The temporal, parietal, occipital and upper half of the frontal bones, externally, are quite smooth and normal in appearance.

Teeth: All the teeth present are somewhat worn down (Plate IV, No. 4). In the upper jaw the only tooth absent is the left median incisor, but the bony socket of this tooth is shrunken and completely healed. The 2nd left molar, the 3rd right molar, the right canine and the right median incisor show varying degrees of decay and cavity formation. In the lower jaw all teeth are present except the 2nd and 3rd right molars and the 1st and 3rd left molars. All tooth sockets except that of the left 3rd molar are fully healed (Plate IV, No. 4). This tooth socket is filled with dirt and shows no gross signs of bone healing.

Vertebrae: All vertebrae including the sacrum and coceyx are inta. except that the bodies of the 2nd and 3rd cervicals in particular, show extensive roughening and abnormal ridges and spicules of bone on their front surfaces, suggesting osteoarthritis.

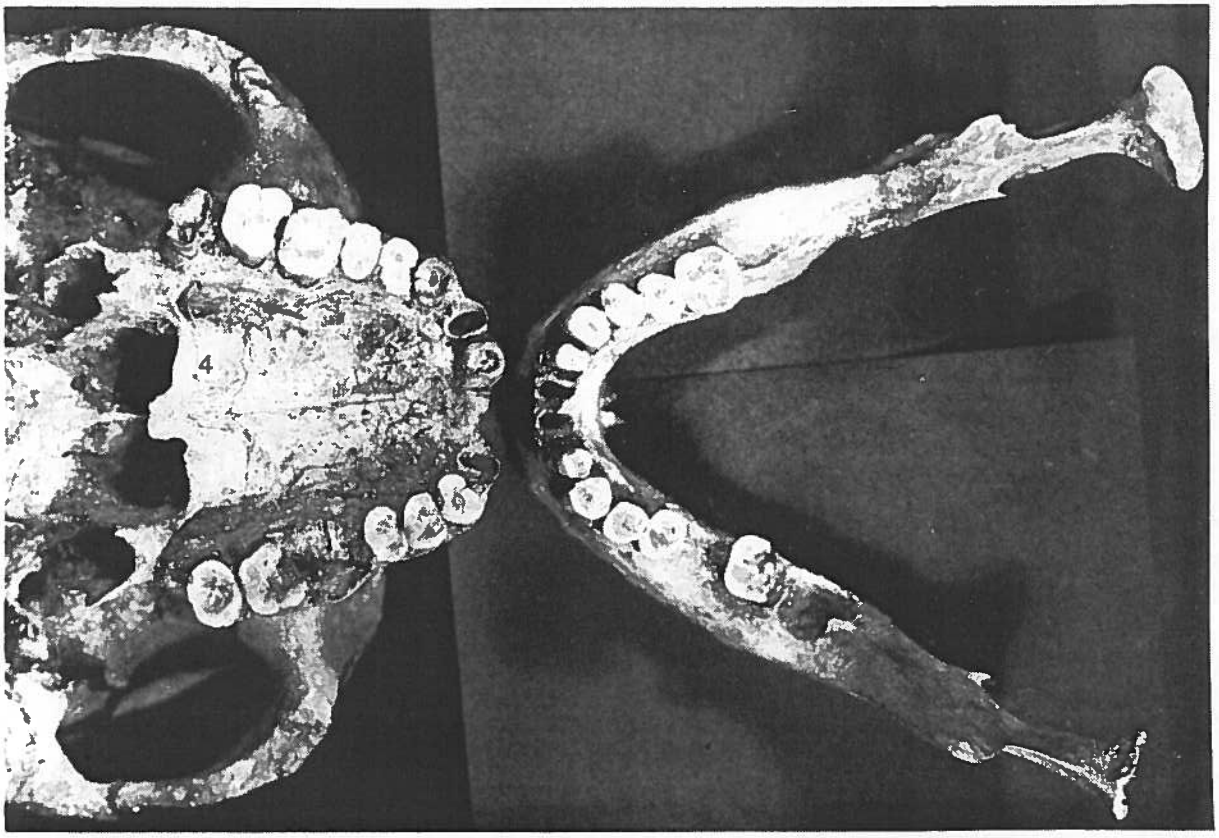
The frequent involvement of the cervical vertebrae in rheumatoid arthritis is well documented in medical literature.

The overall lengths of the femora are the same - 17 3/4", and except for a slight lateral bowing appear normal. The overall length of the right tibia to the tip of the internal malleolus is 15-3/8" while that of the left tibia is 15-1/8". The difference in the lengths of the right and left tibiae, we believe, is due to an old healed injury to the left tibia (Plate III, Nos. 5 and 6) characterized by an annular roughened and slightly raised area about 1-1/2" in width near the junction of the middle and lower third. This callus like formation may have been the result of an incomplete fracture in early life or, of a healed syphilitic or yaws (framboesia) lesion. The right and left humeri are each 13" in length overall and appear normal. Both the right and left ulnas are quite obviously deformed, roughened and enlarged around their elbow articulations by bone formation in ridges and spicules - the left ulna shows the more marked lesions (Plate III, No. 7). The left ulna measures 10-3/8" and the right 10-3/4" overall (tip of the olecranon to the tip of the styloid process). All the carpal, metacarpal and phalangeal bones appear normal, as do the tarsal, metatarsal and phalangeal bones of the right foot (the phalanges of the left foot were not recovered).

Sex: The angles of the necks of the femora are less acute; the flare of the ilia is greater, the width (4 5/8") of the sacrum is greater, and the pelvic outlet is relatively larger than in the male. These measurements, together with the pile of shell beads above the skull, suggest that the skeleton was that of a female. The overall length of the skeleton in situ and measured from a vertical line at the upper border of the skull to the distal ends of the metatarsal bones is 5'6".

After removal of the skeleton the burial pit was trimmed back to the undisturbed yellow sand on its sides and ends, and the following measurements were made - length 7'0", width 4'0", and depth (from present ground level) 31 inches. The depth below the present ground level at which the skeleton was found is considerably greater than the average Indian burials in this area. This may be due to the deposition of erosion soil since the land was cleared and cultivated. Therefore, the possibility that there are other midden or burial pits in this field should be borne in mind and searched for at greater depths than we usually do.

Discussion and Summary: No surface evidence of this burial pit had been obtained by inspection and probing, and had it not been for the bulldozer and its interested and cooperative operator the pit would not have been found, despite the fact that worked stones and pottery fragments have been found widely scattered over this area. This is the third horizontal or Christian type of Indian burial within 6 miles of Lewes, Del., that our Society has excavated. The few pieces of worked stone, pottery sherds and bone fragments present could be better explained as incidental to the refilling of the burial pit.



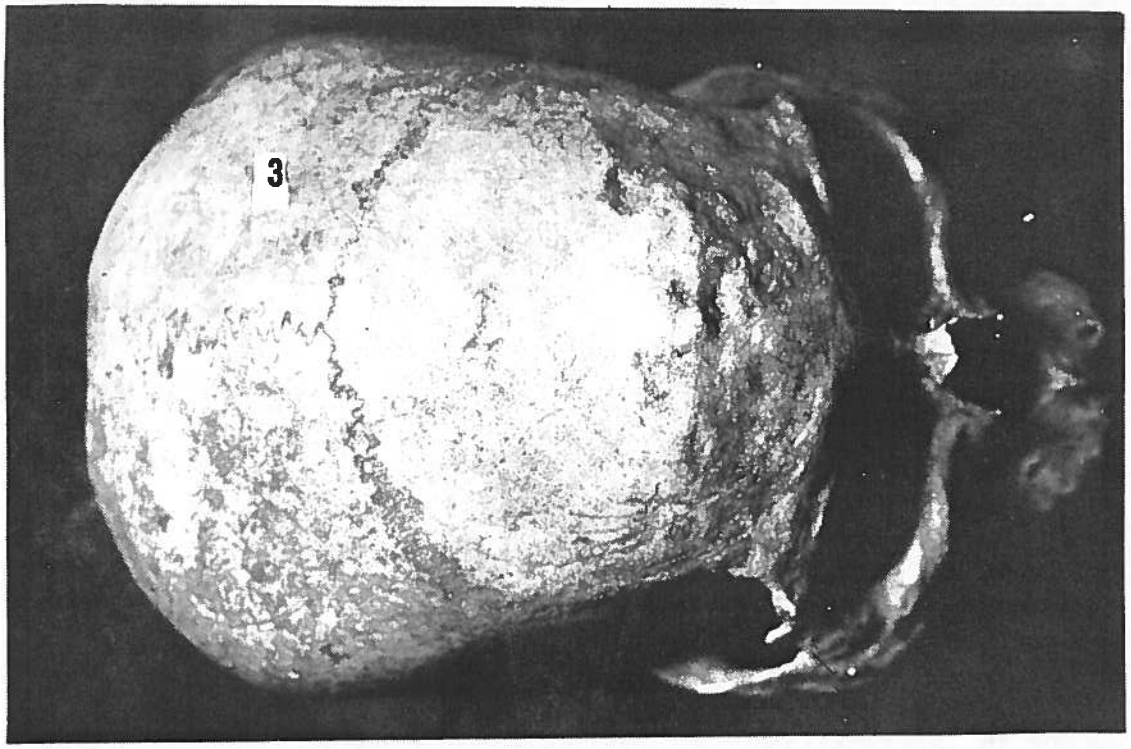




PLATE IV. No. 3, shows band of irregular pittings on lower border of frontal bone with the upper part of frontal and parietal bones normal. No. 4, upper and lower dentitions showing healed tooth sockets, active dental caries and three sockets whose teeth were in place when skull was removed from grave.

The outstanding feature was the well preserved skeleton of an adult female placed in a horizontal position on the leveled yellow sand floor with the skull toward the south. A pile of 72 small, separate, white, polished sea shells, identified as Marginella apicina, mixed with sand, each with a hole rubbed through the shell in the same location, was found about 2 inches south of the vertex of the skull and in its midline in an area less than 3 inches in diameter. If these shells had ever been strung, all visible vestiges of the string had disappeared and from their position, it seems unlikely they were being worn as a necklace at the time of burial. Nevertheless, judging from similar observations reported in the literature, there can be little doubt that they had been or could have been assembled in a necklace.

Of interest also were the pathological findings in the skeleton: (1) The band of healed pittings in the outer table of the frontal bone in the lower forehead area, while the remainder of the calvarium was smooth and normal; (2) the healed fracture or healed inflammatory lesion (gumma) and slight shortening of the left tibia; (3) the extensive formation of bone in ridges and spicules (so called osteophytis) - more marked on the internal surfaces of the bodies of the 2nd and 3rd cervical vertebrae, and the still more marked bone formation in the periarticular tissues of the elbow ends of the right and left ulnas; and (4) the extensive tooth decay (dental caries) in both upper and lower jaws. From a pathologist's viewpoint, the latter 2 of these manifestations of disease (osteoarthritis and dental caries) are of common occurrence today in other racial stocks, and with little or no advancement in our basic knowledge for their control.

The healed pittings on the frontal bone and the healed and roughened area in the lower third of the left tibia could have been due to tertiary syphilis or to yaws (framboesia).

**Footnote**

After this report was written, one of us (Marine) saw in the Museum of Archeology, University of North Caroline, a mixed collection of Marginella apicina and Olivella (jaspidea?) shells taken from an Indian burial in the Cape Fear area of North Carolina. Prof. J.L.Goe said these shells were also used as hair and garment decorations by the Indians.