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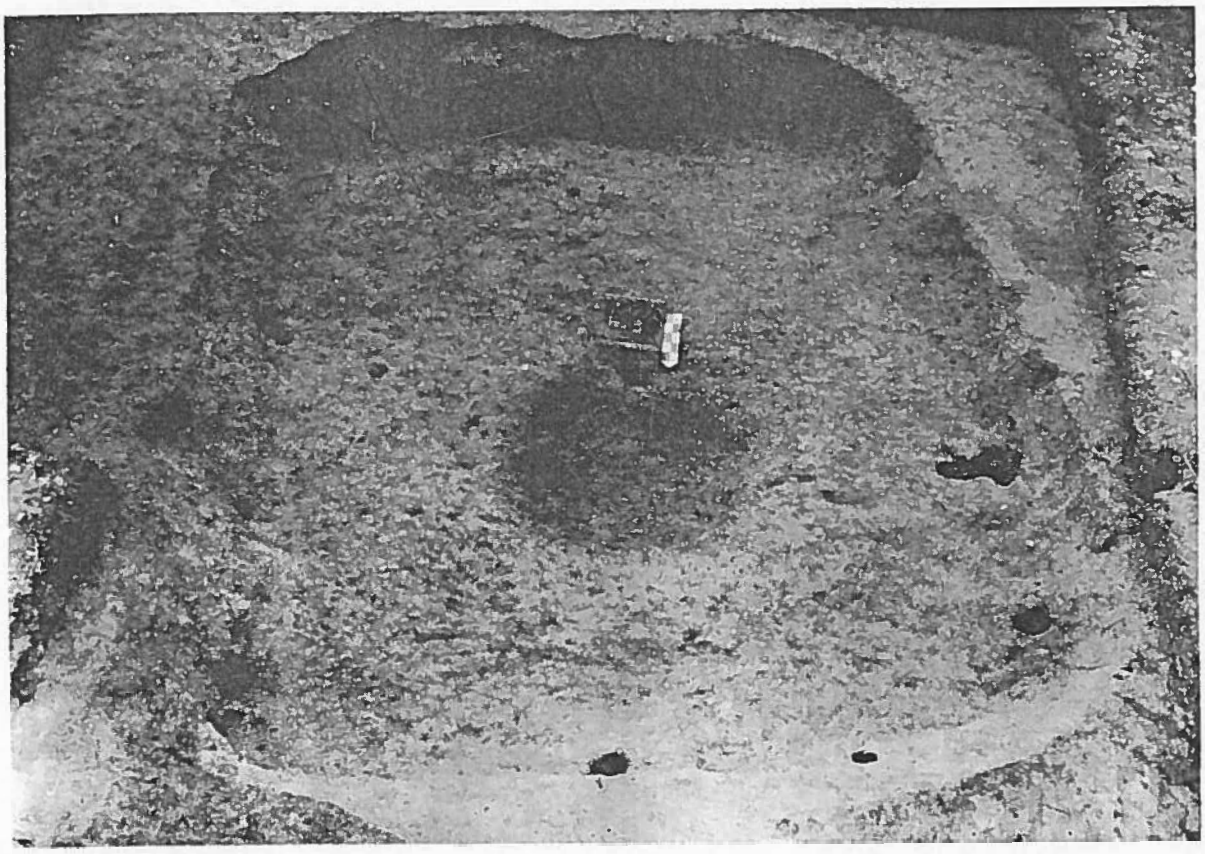


PLATE 2: TYPE 4 POPLAR THICKET SIZE

See Pages 1 - 9

Price $1.75

A BRIEF REPORT ON SEMI-SUBTERRANEAN DWELLINGS OF DELAWARE

Daniel R. Griffith and Richard E. Artusy, Jr.
Section of Archaeology

One of the most commonly excavated features of Late Woodland Slaughter Creek Phase sites are refuse-filled sub-surface pits. Analysis of the Mispillion site in 1970 revealed that these features are often carefully prepared facilities that cluster into three types (Thomas and Warren 1970). Type 1 are small circular pits with sloping walls and rounded bottoms. The diameters range around 90 cm., depths average 70 cm. and surface areas around 1 m^2. Type 2 pits are circular to oval with steep walls and rounded to flat bottoms. Diameters cluster around 2 meters, with depths 1 meter, and surface areas 2-4 m^2. Type 3 pits are large, deep circular to sub-rectangular with vertical or steeply sloping walls and a flat bottom. The maximum lengths cluster around 3 meters, depths over 1 meter and surface areas between 6 and 12 m^2. Though this type displays a range of top outlines, the majority are circular to oval. Depth seems to vary independently of surface area and top outline within the type.

Current research by the Section of Archaeology indicates that a fourth type may be added to those found at Mispillion. Type 4 is made up of large, oval to sub-rectangular pits with steeply sloping to vertical walls and flat bottoms. Maximum lengths range around 3 meters, depths around 60 cm. and surface areas between 9 and 12 m^2. All the known examples of this type have central hearths and post molds within the pit. They are generally shallower than Type 3.

This paper is addressed to a functional interpretation of feature Types 3 and 4. This study is not designed to be an extensive or final statement on feature function, but is a survey of the interpretations and problems involved in the work done up to this point.

Type 3 Features

Mispillion (7S-A-1) Feature 2

Outline: Oval

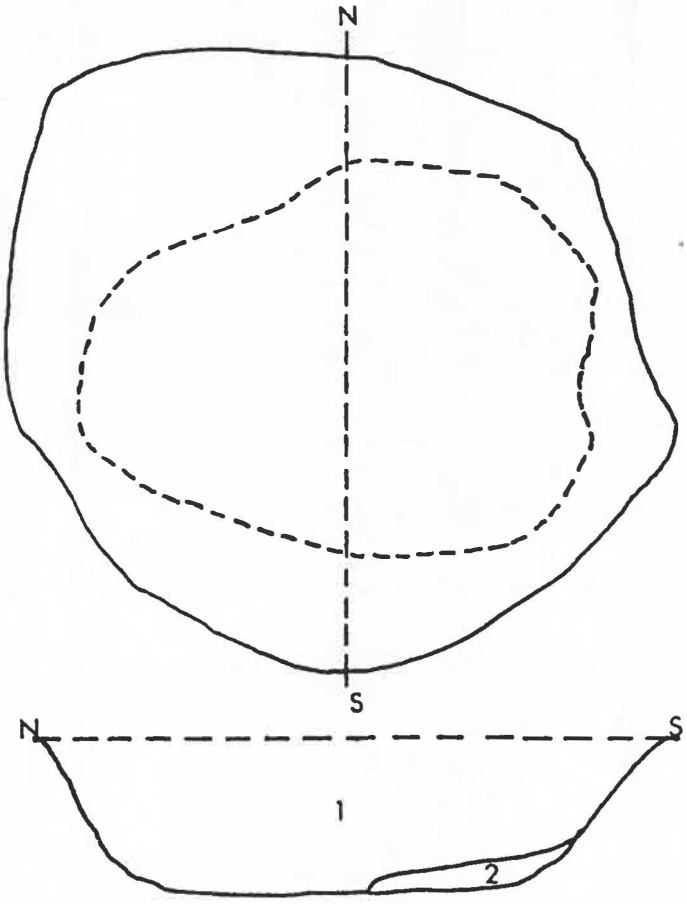
Cross-section: basin, flat bottom

Maximum width: 330 cm.

Maximum length: 360 cm.

Maximum depth: 98 cm.

Surface area: 11.38 m^2



——— top outline

----- floor outline

Feature 2

Scale 1:40

Discussion: This example is typical of the most common pit form encountered in the Type 3 in both top outline and internal structure. This feature contained triangular projectile points and Rappahannock Incised ceramics of the Townsend Series.

Warrington (7S-G-14) Feature 4

Outline: Sub-rectangular

Cross-section: basin, flat bottom

Maximum width: 280 cm.

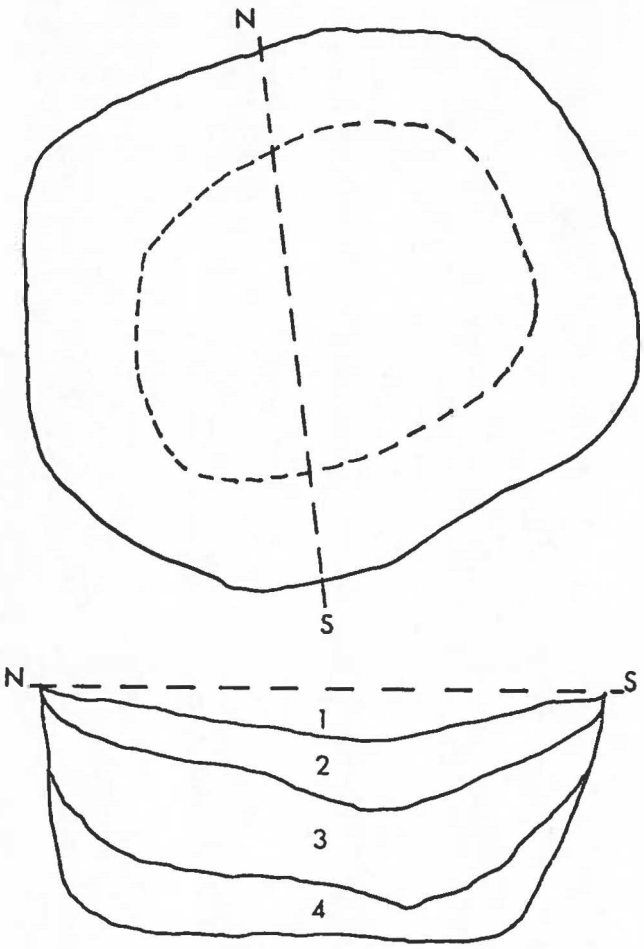
Maximum length: 320 cm.

Maximum depth: 112 cm.

Surface area: 8.96 m^2

_____ top outline

- - - - - floor outline



Feature 4

Scale 1:40

Discussion: The Warrington pit also meets the criteria for inclusion in the Type 3 features. The cross-section and surface area are characteristic of this type. However, the top outline is somewhat atypical as evidence in the drawing. (see Plate 1) No internal evidence was found suggesting hearths or post molds. This pit contained Rappahannock Incised ceramics and a triangular projectile point.

Type 3 Discussion:

These large features exhibit a number of attributes that may indicate semi-subterranean dwellings. Initially, the large volume (10 to 11 m^3) and careful preparation of many of these features precludes their primary function as refuse facilities. In fact, very few of this type have refuse directly on the floor of the pit; refuse having been deposited only in the later stages of pit use. The following quote is an ethnographic description from Western Canada of pits that would be categorized in Delaware as type 3 features:

> "Here there were a number of pits about 6 X 9 feet,and one covered structure of the same size. The excavation is four feet deep. There are no walls rising above the ground. The earth had been cut away in front to make the entrance. A few boards across the open front of the pit make the door, 3 X 2 and one-half feet, with a high sill. Earth was banked against the front wall on each side of this opening. There was no floor other than the trampled earth inside, and no timbering to retain the sides of the hole. The roof beams ran from side to side, resting on the ground, outside the pit, and on upright stakes at the front. These beams supported three layers of split pole, lying split side down and running from front to back. Over each layer of poles was a sheet of birch bark covered with sod. There was no provision for a fireplace inside and no smoke-hole. It appeared as if the hut had been occuppied by someone though it seems impossible that any human being could have lived in such a cramped and filthy hole." (Laguna 1947, p. 97)

The super structure of such pits is little more than a domed lean-to affair with an opening in the roof for access. Such a structure is not likely to leave post stains deep enough to be preserved at subsoil in the cleared and plowed sites with which our information deals. It must be further stressed that no central fire hearth was reported for the Canadian example, nor for the archaeological examples referred to by Witthoft (1972). If the Delaware features may be compared functionally with pits such as the above, as is suggested by Witthoft(1972), Thomas and Warren (1970), and Thomas (1972), then they certainly functioned differently than most archaeologically reported house structures in the Mid-Atlantic. J.Witthoft suggests that pits such as these were winter houses and sleeping quarters inhabited only in the worst weather conditions. These are shelters in the most primitive sense since they offer little more than direct protection from the elements. The archaeological data in Delaware reveals that no domestic processing activities took place within these pits indicating that their major function was for sleeping. There does not appear to be any interior bench structures so that the sleeping must have been on mats directly on the floor. Ethnographic examples of this type of activity are found in British Columbia (Barnett 1944). The Muskwium of British

Columbia used underground dwellings as sleeping pits in the coldest part of the winter. As a general rule no cooking took place in the pit. Frequently the weak and infirm spent most of their time in these pits in cold weather. Linton (1924) also refers to the use in the Southeast of semi-subterranean earth covered structures as winter dwellings. The point of these ethnographic examples is not to indicate direct functional equivalences between these and archaeological occurences of large Type 3 pits, but merely to demonstrate that such is not beyond the realm of possibility and that this may be the best place to start.

The actual existence of seasonal pit houses in Delaware, however, must remain on a hypothetical level for the present. The difficulty lies in the fact that there is little or no general agreement on the archaeologically recognizable definitive attributes of semi-subterranean dwellings of the pit type. Without such a study, the function of these large pits must be conjectural. Detailed studies of the inter-relationships between pit contents and site context may go a long way towards solving this problem. Such a study is planned by the Section of Archaeology.

Type 4 Features

The most convincing examples of semi-subterranean house structures were located by the Section of Archaeology in 1966 at the Island Field Site and in 1974 at the Poplar Thicket Site in Sussex County. These features have size, shape and internal structure attributes indicative of dwellings in the more traditional usage of the term. The excavation and recording techniques in both instances permitted a detailed reconstruction of the original floor plans and provided sufficient internal control to properly assess their cultural affiliations. A discussion of each in terms of their physical attributes follows.

Poplar Thicket (7S-G-22) Feature 3

Outline: sub-rectangular

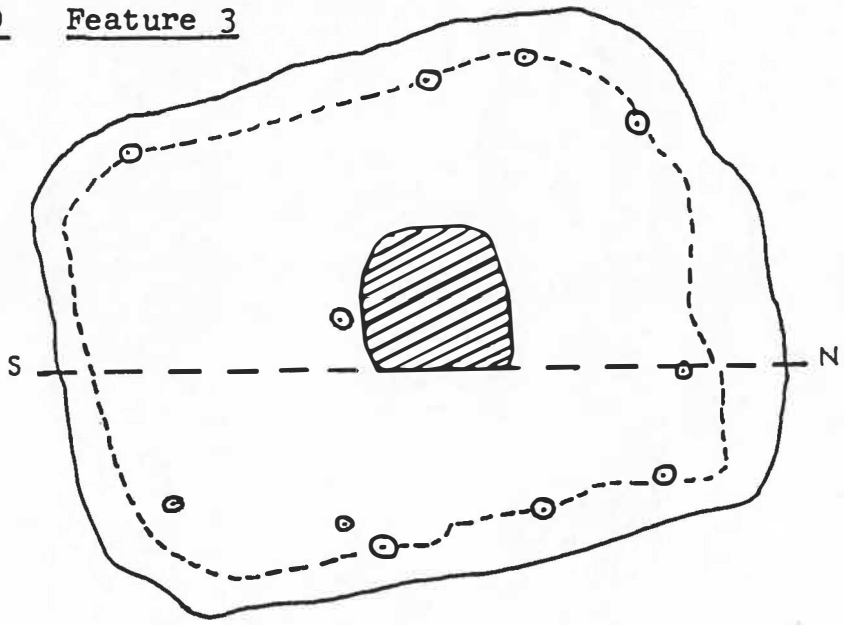
Cross-section: basin, flat-bottom

Maximum width: 300 cm.

Maximum length: 380 cm.

Maximum depth: 45 cm.

Surface area: 11.4 m^2

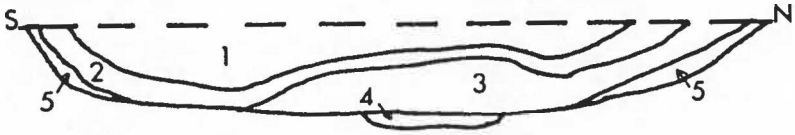


——— top outline

- - - - floor outline

hearth

⊙ postmold



Feature 3 Scale 1:40

Discussion: This feature represents a semi-subterranean dwelling. Stains of major super-structure supports as well as smaller circular stains were located around a portion of the interior. These smaller stains may represent benches or an interior draft break. A large reddened and charcoal stained area representing a central fire hearth is located in the center of the house. The location of the entrance is uncertain, though early sketches by the Dutch in the Lewes area show side entrances. If the Dutch drawings of the 1630's are representative of this type of house, then the Poplar Thicket house was bark covered with one or two side entrances and a domed roof. (see Plate 2)

The ceramics in this feature were all of the Townsend Series. By far the dominant type of this series is Townsend Corded Horizontal C^{14} dated in this feature at approximately 1450 A.D. (U. of Georgia C date, 1360±60 A.D.) The associated refuse and tool categories suggest a multi-seasonal or year-round occupation for the site. The presence of at least one permanent house structure reinforces this interpretation.

The Island Field Site (7K-F-17) Feature 3

Outline: oval

Cross-section: basin, flat-bottom

Maximum width: 260 cm.

Maximum length: 360 cm.

Maximum depth: 56 cm.

Surface area: 9.36 m^2

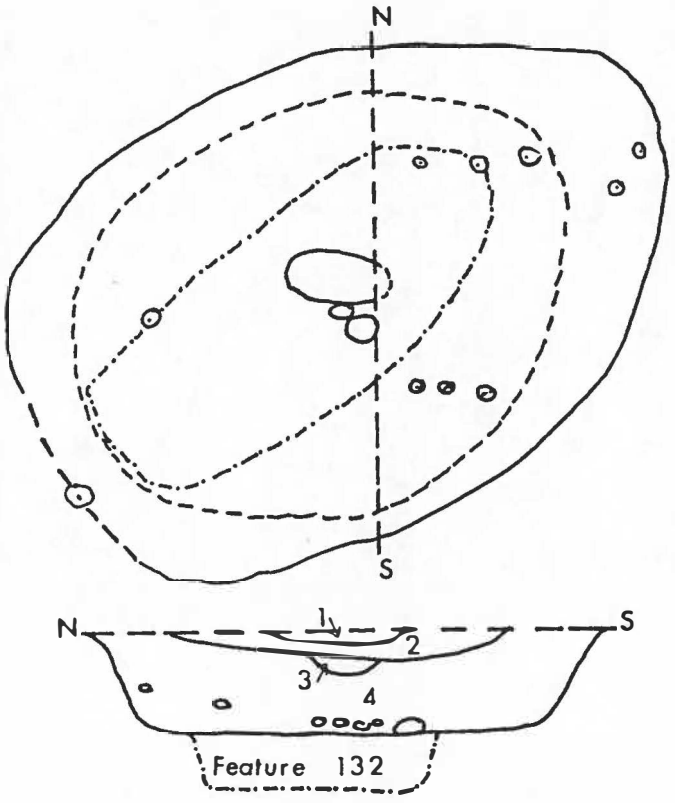
——— top outline

- - - - floor outline

·-·-·- interior feature

⬭ hearth rock

⊙ post mold



Feature 3

Scale 1:40

Discussion: Four attributes, surface area, flat floor, a centrally placed fire hearth, and post molds, suggest that this feature is a semi-subterranean dwelling. The floor was hard packed except in the area of Feature 132, a burial pit. Hearth rock was placed on top of this feature but was apparently never re-used in situ. The lack of hearth re-use and the soft floor over Feature 132 indicates that the interment in this feature terminated the use of the house. Several post molds are scattered throughout the house feature, but a pattern is not discernible. The location of the entrance is uncertain. (see Plate 3)

Diagnostic artifacts are few. Only a dozen body sherds were excavated, all of which were fabric impressed, shell tempered members of the Townsend Series. The osteological make-up of burial 1 in Feature 132 relates it to the Slaughter Creek Phase people at the Townsend Site (Neuman 1970).

Type 4 Discussion:

The Poplar Thicket and Island Field houses are the best documented but by no means the only examples that may be representative of this type. Several features excavated in the 1950's at Slaughter Creek Phase sites around Lewes, Delaware appear to represent type 4 pits though the field data is too sketchy to include them in this comparison. These forementioned examples of probable type 4 features are not comparable in all respects. Some are similar in outline, surface area, and cross-section but lack hearths or post molds, while others contain hearths but lack post molds. All, however, are similar in overall morphology. The lack of other distinctive attributes may be an oversight in the field notes. At present, Type 4 pits as exemplified by the Poplar Thicket and Island Field features are the only seemingly conclusive examples of house types for the Late Woodland Slaughter Creek Phase of southern Delaware.

Conclusions

The foregoing discussions suggest that at least one and perhaps two types of subterranean or semi-subterranean dwellings were used during the Slaughter Creek Phase. One may have been a seasonally utilized subterranean sleeping pit. The other was a semi-subterranean house which appears to have been occupied multi-seasonally or year-round. The Type 3 pits seem to have a long time depth within the Slaughter Creek Phase. The two examples previously discussed contained Rappahannock Incised ceramics and a literature search revealed several of this type containing Townsend Corded Horizontal ceramics. Recent studies of the Townsend Series ceramics (Griffith and Artusy, n.d.) indicates a time depth of perhaps 400 years with Rappahannock Incised representing the earliest type (University of Georgia #923, 1085 ± 75 A.D. and #924, 1285 ± 85 A.D.) and Townsend Corded Horizontal the latest (University of Georgia #925, 1360 ± 60 A.D.) If this preliminary interpretation of the Townsend Series is substantiated, then the Type 3 features do have considerable time depth. The Poplar Thicket house, on the other hand, with its Townsend Corded Horizontal ceramics, is very late in the Phase. The Island Field example of Type 4 is earlier than Poplar Thicket. This is based on the fact that

Townsend Corded Horizontal ceramics do not occur at the Island Field Site. This is not the most conclusive of evidence, however, and accurate dating of this type must await more controlled excavation of such features as well as further C^{14} dating. This time depth of Type 3 and 4 features remains within the temporal limits of the Slaughter Creek Phase. Occupation sites of earlier phases in southern Delaware have revealed only features of the Type 1 and Type 2 categories. A community and settlement pattern shift is thus indicated, though, at the present time the details of such a shift are unknown. Further research into feature function is likely to reveal that Type 3 and 4 pits are diagnostic features of the Slaughter Creek Phase.

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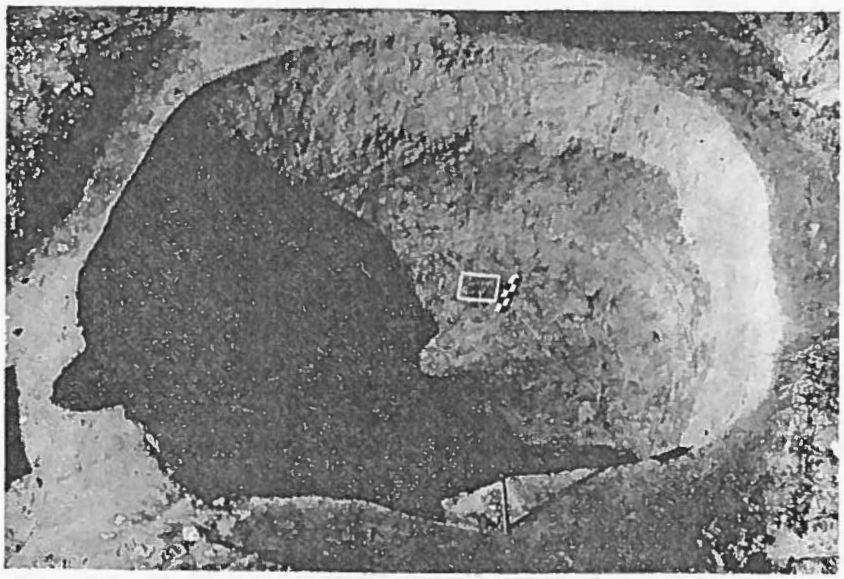


Plate 1: Type 3 Warrington Site

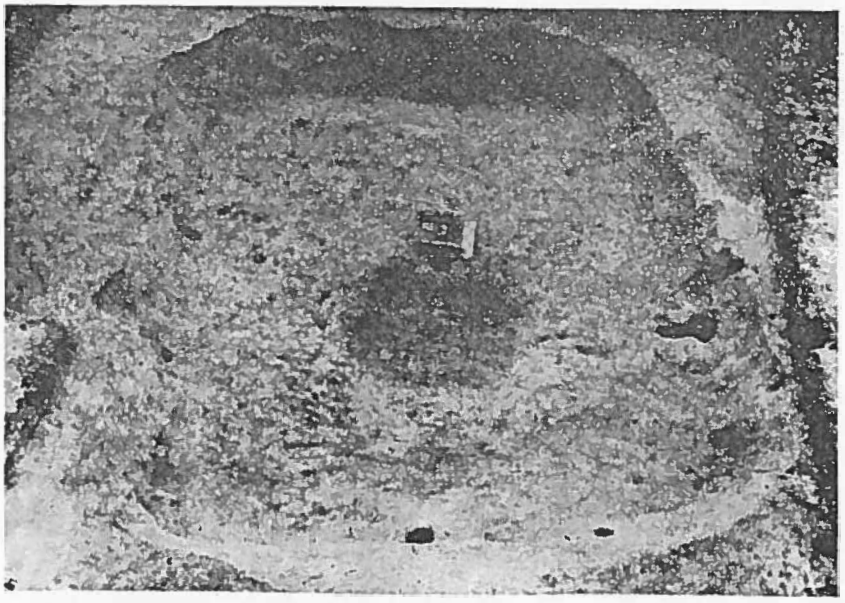


Plate 2: Type 4 Poplar Thicket Site

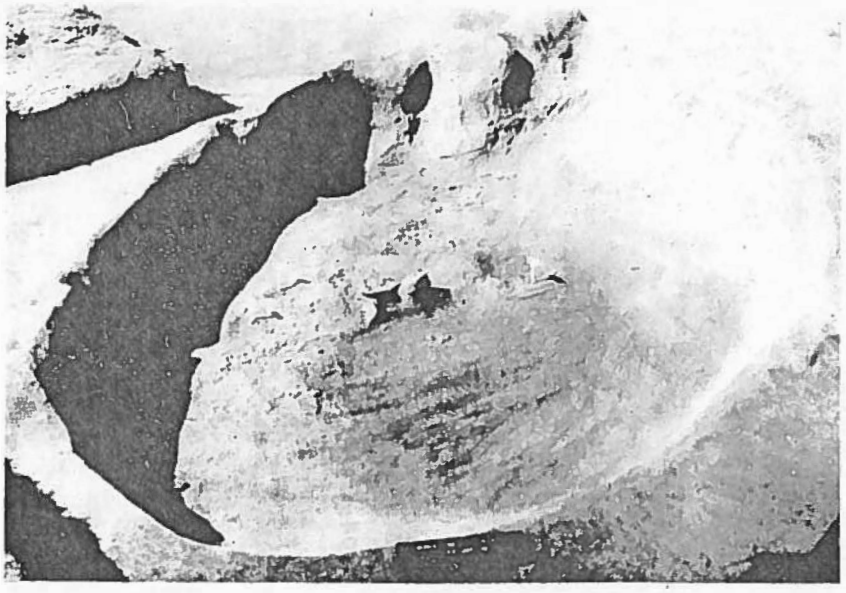


Plate 3: Type 4 Island Field Site

Geneology is History

While it is certainly true that History is a chronicle of events, it is equally true that it is a chronicle of the people who were involved in those events. What would the facts of the Revolutionary War mean without the name of George Washington, or the Civil War without our knowledge of Abraham Lincoln and the events which resulted in his assassination? And in back of these two great men and others just as great, are all the romantic tales of the shadowy following of brave men and women with names not so well known, but without whom nothing would have happened.

When we begin to think about the people involved in these historical events, they begin to come alive for us, as does also the action in which they have taken part.

The science of Geneology is involved primarily with people and only secondarily, to a lesser extent, in events. It involves the tracing of a family as far back as facts can be sought out and put together. For many of the larger, more prominent families of Europe and the British Isles, this translates into going back to the year 1066, and even according to some theorists, to Adam. Since most of us are of European extraction, we, too, can sometimes trace our families far back through the years.

Geneology is a personal thing. Starting with "my father" (and what a pride there is in that phrase) just the dates of birth and marriage and death ring bells of remembrance. Old stories come to mind. The story told by one person of the disappointed swain who tried to stop the wedding, of another whose father and mother had to sleep with a third person in their bed on their wedding night because of a shortage of beds and a wintery night, of the bride who kept her mate-to-be waiting at the church beyond any reasonable patience, of flower bedecked churches, and fabulous wedding parties --on and on into family history which becomes a history of the mores of society, of the conditions of the times, of the events related to the lives of the people.

Going back to grandparents also brings its bit of family lore - the horse and buggy, or in this area of the country, the boat - the ship which sailed to foreign ports, was gone for months and brought back some of the wealth of the Orient for us to enjoy even today; or the ship which did not return at all. The story of how grandpa who was a lay reader in church and a stickler for propriety; and who loved to stand in front of the congregation and shake out his large white linen handkerchief, brought out of his pocket on one particular, memorable Sunday morning, a dirty baby sock, and shook it out, a situation so horrendous that it survived time and space! Even though the family stories still exist, it becomes more difficult to put your finger on every grandparent.

But it is with great-grandparents that most people are completely stumped. Grandpa who fought in a war - any war from the Korean, back through World War II and World War I and the Spanish-American, through the Civil War, the War of 1812 and the Revolutionary War, is apt to survive the pressures of time, if only because of the souvenirs of War which he brought home. But what about great-grandmother? What was her maiden name? Where did she come from? Here is where Geneology becomes fascinating. This is where it becomes a matter of digging. Perhaps you wonder "where in the world do you start?"

The place to start is with what you have. Did Grandpa Ralph go to a certain church? Then ten to one either Great - grandfather Ralph went to that church or Great - grandmother Ralph or both. Church records are a valuable source of family records. Did the family live as far back as you know in Sussex County, Delaware? The courthouse at Georgetown may have recorded deeds and wills which will help you. Were your family always Delawareans? The Hall of Records at Dover is a most marvellous source of information and the personnel are very helpful and knowledgable.

The lower part of Sussex County was at one time considered a part of Maryland. Records at Princess Anne, at Salisbury, at Annapolis, or at Baltimore may be what you need for the information that fits your particular family.

Don't skip older family or community members. They have seen history in the making. At age 90, they have lived through a number of earth shaking wars, and depressions, and fires, and storms. Also, papers which may be in an attic, such as letters, wills, deeds, even bills, ledgers, diaries, quilts on which names may be inscribed - any or all have information. Graveyards contain a great deal of factual information. And lastly, books. Histories, biographies, geneologies of certain families, almost any book may be of help.

And on and on. In the process you will absorb little known facts of local and national history, and will develop a perspective of the growth of our country which will telescope time into a fraction of what is originally seemed.

In the future I would like to explore with you some of the history of Sussex County and some of the families whose contributions to the growth of the county have resulted in today's world.

Submitted for the Archeolog by Elizabeth S. Higgins

Comments on "History is Geneology"

I have read the above article on Geneology with interest and pleasure, for it brings to mind the pleasure I derived in my own hunt for information about my own ancestors. I have always liked to go hunting and when I became somewhat matured, I became curious about what my ancestors had done in their lifetimes to better themselves or to help their community. So during my vacations and intervals between jobs, I started hunting in court house records, historical libraries and so forth, following up clues that I found in them. The result was surprising!

I found out an ancestor had been in the Virginia troops at Valley Forge with Washington's army, another that bought lands in the Valley of Virginia, and was commissioned with two others to survey a road, the first wagon road, westward across the Blue Ridge Mountains to the Shennadoah Valley. Another who emigrated from Scotland to Virginia and got his first job as a gardener in the White House gardens in Washington, and later became a successful horticulturist in Richmond, Virginia and whose only son enlisted in the Confederate Army at the age of 14.

Another ancestor operated an inn on the Richmond and Kanawah Turnpike, and was widely known as the most entertaining Liar in the State of Virginia and as such was so written up in a contemporary New York newspaper. He also gave four sons to the Confederate Army. I may have inherited a host of other things about these people's traits; some good, some bad; "some rags to riches," some "riches to rags." Whichever it was, it has increased my pride in life and stimulated my joy in living.

It is a good hobby. Try it. It takes a lot of hunting, but it's open season all year.

Comments From Your Editor

A SUSSEX COUNTY CHAMPION DIES

FAREWELL

Richard J. Jamison

On the bank of Bloxsom Creek, about one mile "down river" from Woodland Ferry and beside road #79, stands the now lifeless form of "The Big Pine at Bloxsom Creek".

It is a giant of a forked tree of the Loblolly variety (Pinus Taedus).

In my years of living in Woodland, I suppose like many folks, I could not see "the forest for the trees". Only a year or so ago did I notice the old Pine was showing very little sign of life: A few brushy pine needles showed from only one or two scraggly limbs! I realized a deep sense of loss that came only too late to help now. As with the aging process of all living things, a severely infirm condition is practically irreversible.

Upon closer examination, there was evidence of decaying and hollowness in the trunk and in some of the larger limbs. Also, I understand, fungus is a prime enemy of such monarchs. Bees, too, in previous years had made their home in the hollows which only further harmed the already neglected tree.

In January 1975, my wife and I made an effort to measure the big pine, which I am told is to be done at four and a half feet (or "breast high") above the ground to clear any swelling from the "stump" area. The measurement is 13' 6" in girth or a diameter of 4' 6". In Delaware's list of outstanding trees, this tree is given as having a height of eighty feet and a crown of forty feet.[1] In cases of trees with identical girth measurements, the American Forestry Association suggests a method of scoring similar types: add girth (in inches), height, and one fourth of the crown (spread). The aggregate score for our pine is 253. The only one larger in Delaware is near Milford with a score of 266. There is another in Sussex County near Millsboro with a score of 244.[1] In Delaware's list we find the age for ours listed at 315 years; Milford's at 140; Millsboro's at 155, which makes ours champion in age, hands down.[2]

In conversation with Lloyd Simmons of Delaware Department of Natural Resources, I received information that in 1971 the age factor was again determined by taking a ten inch core, or plug, from the tree and by counting the growth rings, and by extrapolating, it was estimated that our pine was 200 or more years old. However, Mr. Simmons pointed out that by calculating a natural growth rate of 10.6 inches per sixty (60) years, under normal woodland conditions, it was estimated the tree could possibly be 350 years old, or even more!

Since the big pine has grown on the bank of Bloxsom Creek and 30 or 40 feet from the roadway and has always been in brushy growth, it would constitute anything but ideal conditions.[3]

I sometimes like to let my imagination take me to some of the possible (but probable!) scenes the old pine may have stood mute witness to. Using the 350 year figure, the tree may have been a seedling as long ago as 1625! Certainly, many Indian canoes have paddled by and scores of those hardy souls who lived and gave us our local history and heritage that we now try so hard to sort out and preserve, have passed beneath it's great boughs. Possibly, no white man had even started to beat down the trail that is now our road nearby that follows exactly, in many places, the early road along the banks of that ancient super highway, the Nanticoke River.

Few will notice, and fewer will lament the now dead "Old Pine at Bloxsom", but to me it's standing presence has always been a signpost to the past.

ADDENDUM

Also of note, about two miles further down the same road in the yard of the Pete Gum Farm is a very large Sycamore or Buttonwood tree.

The house and tree are situated only a few feet from what used to be the access to the old Haines Wharf on the Nanticoke. In conversation with Mr. Gum, he stated that the tree is hollow, but the opening into the hollow trunk has long ago grown shut. Small children, he was told by old folks, used to crawl in and out of this hollow.

In the State's list we find the following figures for this tree: 17.5 feet in girth; 67.4 inches in diameter; 98 feet in height, 120 foot crown; score 336; and a grand old age of 270 years![2]

In a closet of the house marked in plaster is a date of 1847. This is the only known clue as to the age of the house, but assuming this to be correct, the house did not come into being until the tree was already 143 years old!

Many loads of local goods and passengers of old passing to and from the old wharf and it's steamers and sailing vessels have no doubt enjoyed the pleasing shade of this grand old tree also!

1. OUTSTANDING DELAWARE TREES
   Published spring of 1973 - a register of 100 notable Delaware trees; compiled by Charles E. Mohr, Division of Parks, Recreation and Forestry.

2. For Outstanding Delaware Trees, footnote indicates this data was compiled in 1937.

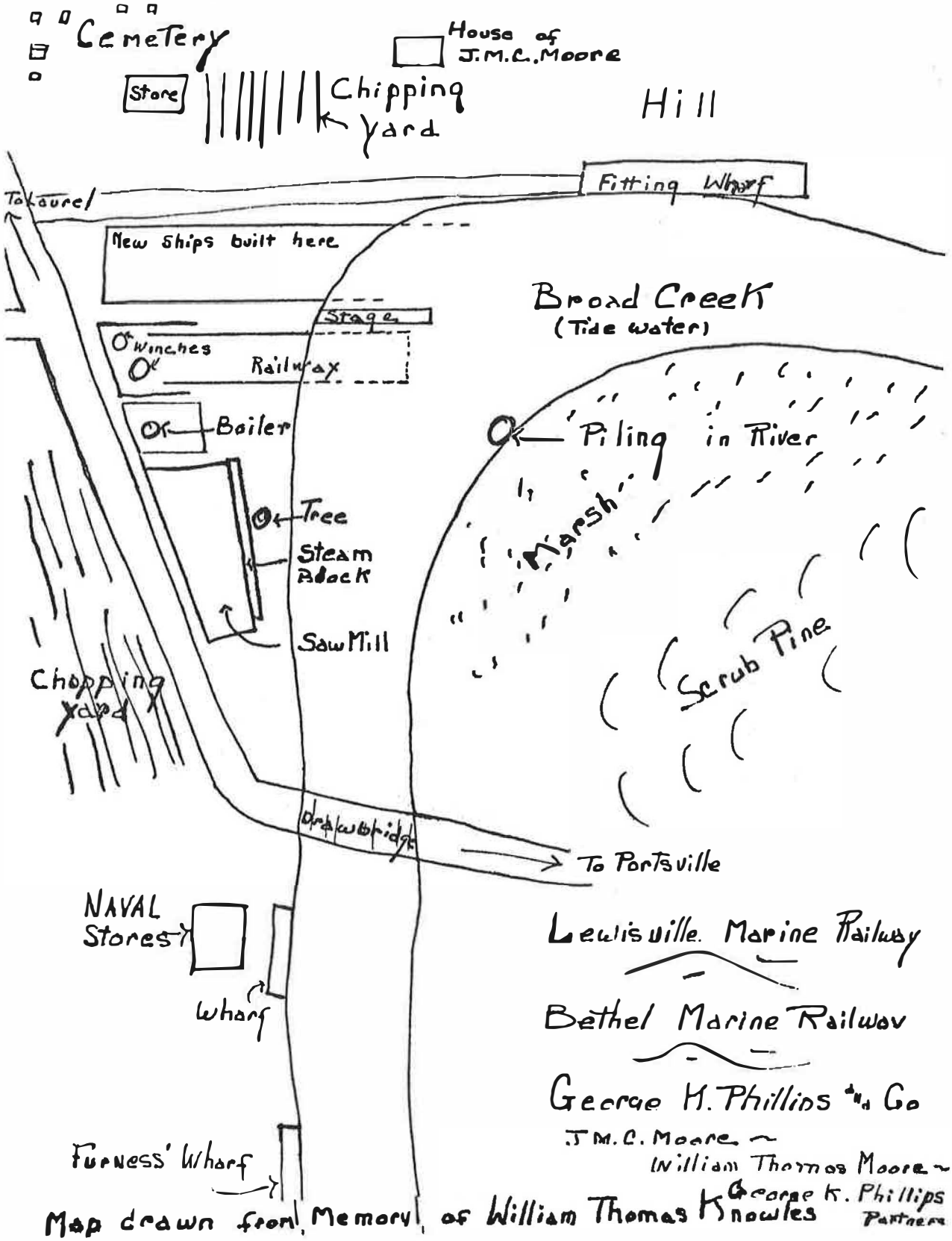
3. The 1973 register (1) still lists this tree, but State Forester Walt Gable stated that the Pine would now be taken off the State's list.

Photos 1 and 2 - Loblolly Pine at Bloxsom, Road #79
Photographs taken April 10, 1965 by Henry H. Hutchinson

Photos 3 and 4 - Sycamore in the yard of Pete Gum Farm, Road # 79. Note yard stick at base. Photographs taken March 30, 1965 by Henry H. Hutchinson

BETHEL SHIP YARD About 1900 AD

Old sketch map of Bethel Ship Yard found by Mrs. Leslie Davis of Laurel, Del. in files of the University of Delaware Library. She permitted us to reproduce it for the benefit of the younger generation and visitors who are unable to understand where in Bethel space was available for a shipyard. The new highway road-fill to the new bridge covers the location of most of the buildings shown. Old hand operated draw-bridge has been removed.



SHELL HEAPS

THANKS TO THE INDIANS

There are many things that we have to thank the Indians for but who today would think of thanking the Indians for the great heaps of shells that the Indians left along the shores of our rivers and bays? But the early colonists found them a valuable resource!

Seafood provided a high percentage of the diet of the Natives, and shellfish was the easiest to catch, but the edible meat was only a small part of the total weight of the catch, and the waste was enormous. A very small part of this waste shell was used by the Indians for such implements as spoons, dippers, ornaments, wampum, and when crushed as a tempering element in their native pottery. Also, occasionally they made a hard floor in their "sweat-bath huts" by using carefully laid clam-shell. (see The ARCHEOLOG Vol. 3 No. 2, and Vol. 9 No.2) The great majority of the shell was discarded on the shores near where they harvested the shell fish.

Reliable reports say that some of these shell-heaps extended for miles along the shores of the Potomac River and in places were 10 to 12 feet deep. Somewhere I have read that shortly after the B & O Railway started operating, they built a spur-tract down to the north shores of the Potomac just to haul these shells to large Lime Kilns further inland.

Why did the Indians make such high and long shell heaps? We find very few Indian artifacts in them or adjacent to them, for the more permanent camps or settlements were more inland where there was better protection from winter weather and storms, and adjacemt to canoeable streams. Shellfish are more edible in cold weather and grow in relatively shallow water near the mouth of rivers and large creeks with not too much current or wave action, but with tidal movement of the waters.

In these places the Indians harvested their oysters and other edible crustaceans, shelled them on the nearby shores, put the meat in large earthenware bowls or pots, and threw the empty shells back upon the shore. When their pots were full of meat they put them in a log canoe, braced the pots with unopened shell fish, then paddled or poled the canoe load back to their camp or village.

This went on for many generations, probably several hundreds of years, and the pile of shell on the shores accumulated into

great mounds, awaiting the white man to use them.

The foregoing statement is partially substantiated by an analysis of pottery rim sherds from the Willin Site (18-DOR-) which is located on the bank of the Marshyhope Creek, a tributary of the Nanticoke river, and about 20 miles by water (or canoe) from the large shell-heaps at the mouth of that river. The careful analysis of rim sherds of that site, indicated that 26.8% of the pots were over 12 inches in diameter, and 11.8% were over 18" in diam. Such large pots must have been made for transportation or else for storage, not for daily cooking.

Confirmation of the fact that Indians transported small foods by baskets and large pots in canoes, can be found in pictures drawn by artists who accompanied Sir Walter Raleigh to Roanoke Island in 1587, namely Captain John White. Also the artist Jacques le Moyne who accompanied a French expedition to the Florida coast in 1564. (From THE NEW WORLD by Stefan Lorant, 1946.)

Now how did the early colonists profit by these shell heaps? As the number of colonists increased, and as they took up land for farming further inland than Jamestown, they needed better housing than the log and wattle houses first built in Jamestown, and roads from their plantations to Jamestown or other sattlements were needed as transportation by boat was not practical.

For their principal housing they could and did make brick from local clay, fired and hardened in simple brick-kilns. They needed lime or cement for mortar and as limestone was not available in the tidewater country they built primitive lime kilns and made lime out of sea shell from these Indian shell heaps.

This quick-lime could also be used for many other purposes, such as;---

(1) Mortar for laying brick, mixed with sand readily available.
(2) Plaster for the interior walls and ceilings of their new houses.
(3) "White-wash" for the same, plus fences and out-houses.
(4) As a disinfectant and deodorizer around "Privies" and stables.
(5) To make "Lime Water" used in primitive medieval practice
(6) To "sweeten" poor land to improve their crops.
(7) And when they started refining Iron from "bog-ore" they used large amounts of shell as a flux in the process. (and probably many other uses.)

As roads became necessary for traffic between settlements and plantations, they were first just clearings through the forests and underbrush, but with horse and wagon traffic they

soon became almost impassable due to poor drainage, so the colonist went back to the Indian shell heaps and filled in these soft spots with hard shells which allowed good drainage and a firmer surface.

On the "Eastern Shore" (now called the Delmarva Peninsula) these shell roads were "good roads" up until the automobile and heavy trucks made them obsolete. As late as 1919 these Indian cast-off shells were still being used to surface the streets of Bethel, Del. In that year they purchased 31,000 bushels of shell to be delivered by barge from the shell heaps at the mouth of the Nanticoke River. Cost 6 to 9¢ per bushel; to be used on the streets of their town. (They are still there, 1975, but now covered with an asphaltic surface.)

Henry H. Hutchinson

INFORMATION FROM THE SECTION OF ARCHAEOLOGY

National Register Nominations - The staff of the Section of Archaeology has recently been working on the paperwork necessary to place fourteen prehistoric sites on the National Register. Seven of these sites are in Sussex County, four in Kent County, and three in New Castle County. The sites were chosen because of their proven or potential significance in understanding Delaware prehistory. Placement on the National Register guarantees that the sites will be protected when threatened by unavoidable construction. The Island Field Site is the only prehistoric site on National Register in Delaware at this time. The sites which have been submitted for nomination are: in New Castle County, Beaver Rock Shelter, Hell Island, and Clyde Farm; in Kent County, Dill Farm, Frederica and St. Jones Adena, Hughes-Willis and Hughes Paleo Complex; in Sussex County, Mispillion,Slaughter Creek, Hells Neck Complex, Wolfe's Neck Complex, Warrington, Thompson Island and Poplar Thicket.

Poplar Thicket Report - Laboratory analysis is underway on the material excavated at Poplar Thicket this summer. Preliminary indications are that the site was occupied for most if not all of the year. Bones of deer, rabbit, bear, bobcat, and muskrat were abundant as well as the remains of at least five dogs. The major economic activity at this site seems to have been shellfishing and, perhaps, horticulture. Radiocarbon dates for this site, the Warrington Site, and the Mispillion Site have been submitted to the University of Georgia Lab. Results will be reported when available.

Newport Force Main Project - The excavated materials from three sites within this salvage project are now under analysis. Preliminary analysis indicates repeated occupation of this area for as many as 5,000 years. Included in the occupational remains are workshop or tool manufacture activities, hearths, and scattered encampment debris. Little can be stated at this time concerning subsistence and settlement systems. An environmental impact statement will be the end result of this report.

Delaware Academy of Sciences - Two employees of the Section of Archaeology recently presented papers at the Delaware Academy of Sciences Symposium on Prehistoric Inhabitants of Delaware. Ronald A. Thomas, Archaeology Supervisor, presented a paper on the Island Field Site and a second paper concerning Paleo-Indian in Delaware. Daniel R. Griffith, Archaeologist, presented a paper entitled "Ecological Studies of Prehistory". C.A. Weslager, Dr. John Kraft, James Blackman and Elwood Wilkins also contributed papers. All of the papers will be published in the Proceedings of the Delaware Academy of Sciences.

New Acquisitions - The Section of Archaeology has recently received several large collections. During the fall months, we received the W.O. Cubbage Collection and were given a loan of the Archaeological Society of Delaware Collection. Most of the artifacts have been processed and integrated into our statewide survey collections. They are of great value in filling in the distributional gaps in our survey.

Storm Damage - The storm of Thanksgiving weekend caused some moderate damage at the Island Field Site. The road leading into the site was washed out three times in two days and two of our vehicles were flooded in about three feet of water. The road has been repaired, however, and the vehicles are running.

Sussex Society Of Archeology And History

Guide For Contributors To The Archeolog

In submitting papers or articles for The Archeolog, it is requested they be prepared using the following guidelines.

1. Articles are solicited from members and the general public on an equal basis.

2. We welcome material from other similar archeological and historical organizations and related governmental agencies as long as the content deals with our fields of interest.

3. Contributors are requested to adhere to the following format:
   (1) Type material with clear black ink on 8½" X 11" white paper exactly as it is to appear in final form.
   (2) Use one side of paper only and single space.
   (3) Do not number pages in type but number them lightly with soft pencil. Pages will be renumbered when published.
   (4) Allow one inch (1") margins on all sides of the paper.
   (5) Mount drawings in black ink on same 8½" X 11" white paper with figure numbers and titles in black ink also.
   (6) Photographs must be black and white, gloss finish and with identifying numbers and titles corresponding to those used in the text.
   (7) Contributors should list at the end of the manuscript, source material for references using identifying numbers in the text.

4. Each contributor is given four (4) free copies of the issue in which his article appears in addition to his membership copy. If he wishes additional copies, he may obtain them at the actual cost of the issue provided he orders them before the printing order is placed. Delivery costs will be added to this cost.

5. The retail price is printed on each issue in advance and is set to include mailing and handling costs and to provide a few extra copies for members and other interested persons who may wish to purchase them at the published cost.

For additional information please get in touch with Mr. Henry H. Hutchinson, Bethel, Delaware 19931 or any officer of the Society listed in The Archeolog.