

# THE BULLETIN

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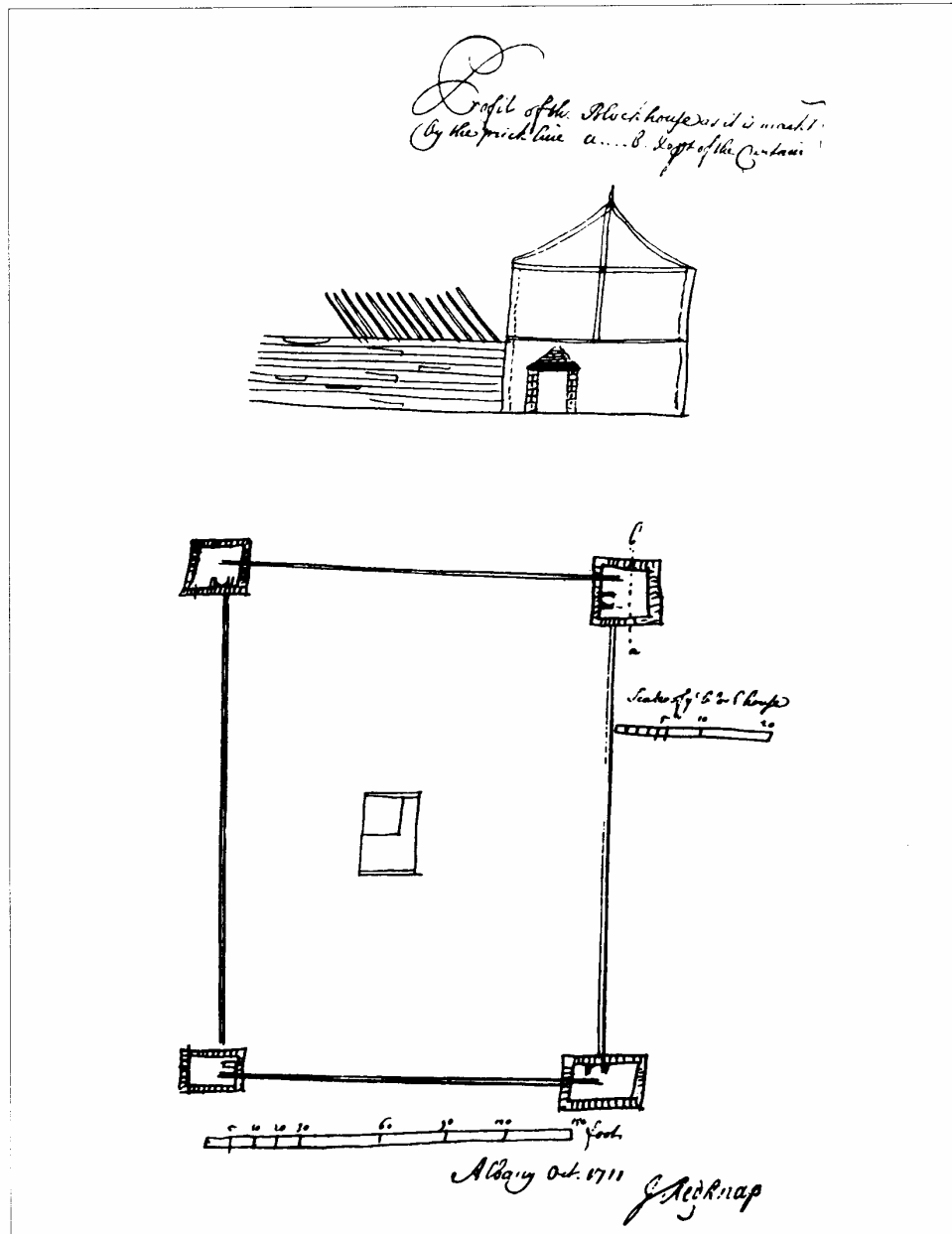
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# The Bulletin

Journal of the New York State Archaeological Association

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Plans of Fort Hunter, 1711

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Address c/o  
Research Division  
Rochester Museum and Science Center  
657 East Avenue, Box 1480  
Rochester, New York 14603-1480

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# Archaeological Evidence of the Colonial Occupation at Schoharie Crossing State Historic Site, Montgomery County, New York

Kevin Moody and Charles L. Fisher, New York State Office of Parks, Recreation and Historic Preservation

Archaeological and historical studies for a parking lot at the new Visitor-s' Center for Schoharie Crossing State Historic Site provided new information regarding the colonial settlement of this site. Historic features and eighteenth century artifacts are present at this site, reflecting the colonial activities that took place within the historically documented church lot. The stonewalls were not destroyed but remain buried beneath the parking lot.

## Introduction

Schoharie Crossing State Historic Site is located in Fort Hunter, Montgomery County, New York (Figure 1). This is approximately 40 mi (64 km) west of Albany at the confluence of the Schoharie Creek and the Mohawk River.

The name "Schoharie Crossing" has been chosen for this State historic site because of the great significance of the various engineering works which were designed and constructed to carry boats across this stream; and other transportation and historical features in the vicinity supplement and illuminate the story of the Original and Enlarged Erie Canals and the opening of the Mohawk Valley to trade and settlement [Bailey 1968:ii].

The development of a Visitors' Center at this site required construction of a parking lot on the north side of the former late nineteenth century Quiri House. The archaeological survey of the proposed parking lot recorded limited evidence of eighteenth century occupation or activities. Construction of the parking lot did not require deep excavations, but archaeologists from the Bureau of Historic Sites monitored the topsoil removal in the spring of 1987. A rectangular feature was observed, and additional investigation was undertaken. This work resulted in the first archaeologically recorded material evidence of eighteenth century settlement at Schoharie Crossing State Historic Site.

This report presents a brief historical chronology of this site along with a description of the material evidence recovered. The discussion of the historical background focuses on the location of Queen Anne's Chapel, since this eighteenth century structure is believed to have stood in the vicinity of the archaeological investigations.

The material remains were employed to date the construction and occupation period of the feature located as well as to provide information regarding the specific activities that occurred at this site.

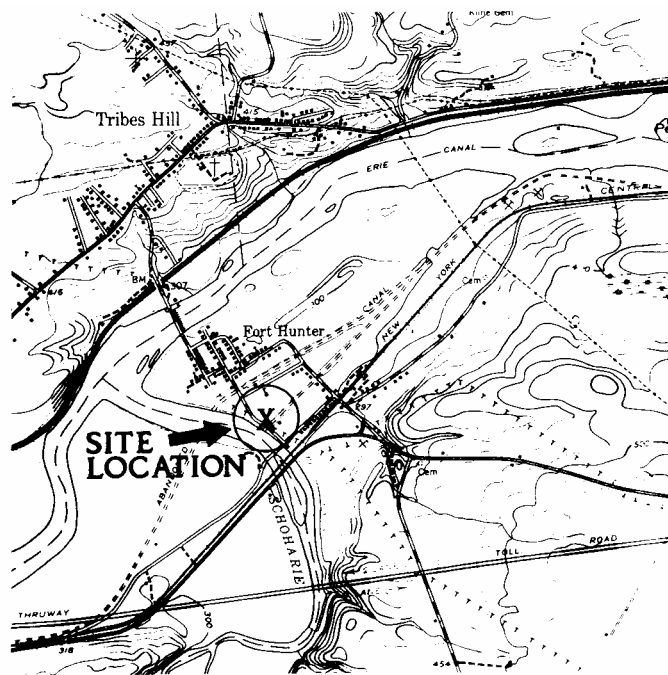


Figure 1. Location of Visitors' Center, Schoharie Crossing State Historic Site (USGS Tribes Hill, N.Y. Quadrangle).

## Historical Background

One of the results of the Dongan Charter of 1686 was the grant to the City of Albany of land to the west, referred to as the Tionnonderoge Patent. This provided Albany merchants with direct access to the Mohawk River trade route. Several years after this charter, Governor Henry Sloughter obtained a promise from the first Protestant Mohawks to establish a settlement at the mouth of the Schoharie Creek.

The site of the original 1691 Protestant settlement is problematic since no specific documentary or archaeological evidence has been located. Moody (n.d.) has hypothesized the original settlement was approximately 2 mi (3.2 km) east of the mouth of the Schoharie Creek, south of the Mohawk River.

A number of additional Mohawks joined the Protestants at this location following Frontenac's 1693 winter raid on their villages and gardens. This larger settlement was referred to as the Praying Castle the following year (DRCH 4:81-82). The colonial conflict between England and France escalated during

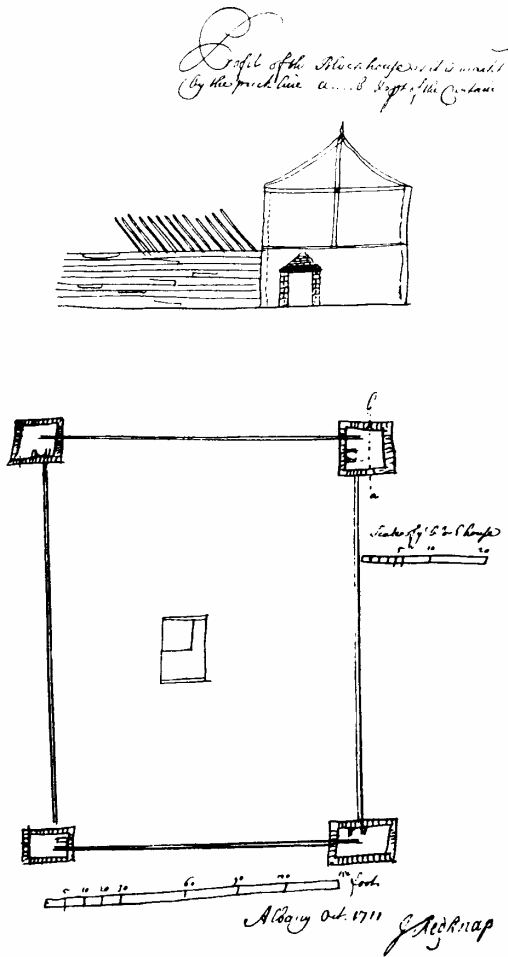


Figure 2. Plans of Fort Hunter, 1711 (Lydekker 1968:32).

the first decade of the eighteenth century as Queen Anne's War. The Mohawks then appealed to the English to build a fort at their settlement.

This fort was designed by the chief engineer of the province, Colonel Rednap, and was built by five Dutch carpenters from Schenectady under a contract with Governor Robert Hunter dated October 11, 1711 (DRCH 5:279-281). The fort was a 150 ft (45.7 m) square log palisade, 12 ft (3.7 m) high, with a blockhouse in each corner. A chapel, 24 ft (7.3 m) square, was located in the center. This building was one story, with a cellar that was 15 ft (4.6 m) square. All the buildings were constructed from squared logs laid horizontally and pinned together. In October 1712, the completed chapel was dedicated within the fort (Figure 2). The 1712 survey map by Hansen shows the church at the mouth of the Schoharie Creek and Mohawk castles to the east and west (Figure 3).

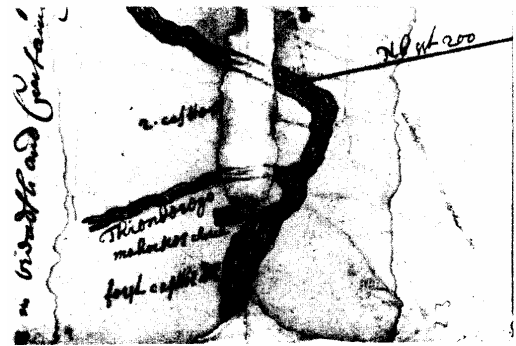


Figure 3. Hansen Survey Map of 1712 (Hansen 1712:105). New York State Archives.

By 1714, the remaining inhabitants of the original Praying Castle were ready to abandon the site and sell the land. Reverend Andrews noted a large Mohawk village (castle) was developing near the new "Queen's" fort. This consisted of 40 or 50 wigwams within a palisade (Lydekker 1968:37).

The fort required repair by 1720, when Governor Burnet requested permission to tax imported European goods to obtain funds needed to "renew the fortifications which are quite decayed both at Albany Schoenectade & Fort Hunter" (DRCH 5:577). A map of manorial grants from c. 1726 depict, Fort Hunter to the north of the Mohawk village (Colden n.d.). In 1739, Lieutenant Governor Clarke reported to the Lords of Trade that he had obtained money "to build a new fort in the Mohawk country" (DRCH 6:151). This may refer to reconstruction at Fort Hunter or at a completely different location.

The log chapel built in 1711 was replaced by a "neat stone church" in 1741 (Lydekker 1968:55). Since the original log structure was not demolished until 1742 (Butler 1733:82), these two chapels must have been located on different sites. Cartographic and documentary evidence from the 1750s indicates that the 1741 stone church was built between Fort Hunter and the Mohawk village. In 1753, Gideon Hawley "rode to what was called the Mohawk castle; near which was a stone chapel and a village of Indians, situate on Schoharie Creek" (DHNY 3:1039).

Sir William Johnson visited the Mohawk castle in 1755 and proposed a new fortification. He recommended

it to be nearly on a Line with Fort Hunter, to take in the church as a Bastion & to have a Communication Pallisado between the two forts, ... in case of an Attack [DHNY 2:657].

The exact location and relationship between these two forts is presently unknown. Johnson contracted "with three men to build the two forts" at the Mohawk Castles at Conhohogery and Mohock on June 16, 1755 (JP 1:605). Johnson submitted his receipts for paying the builders of the "Mohawk

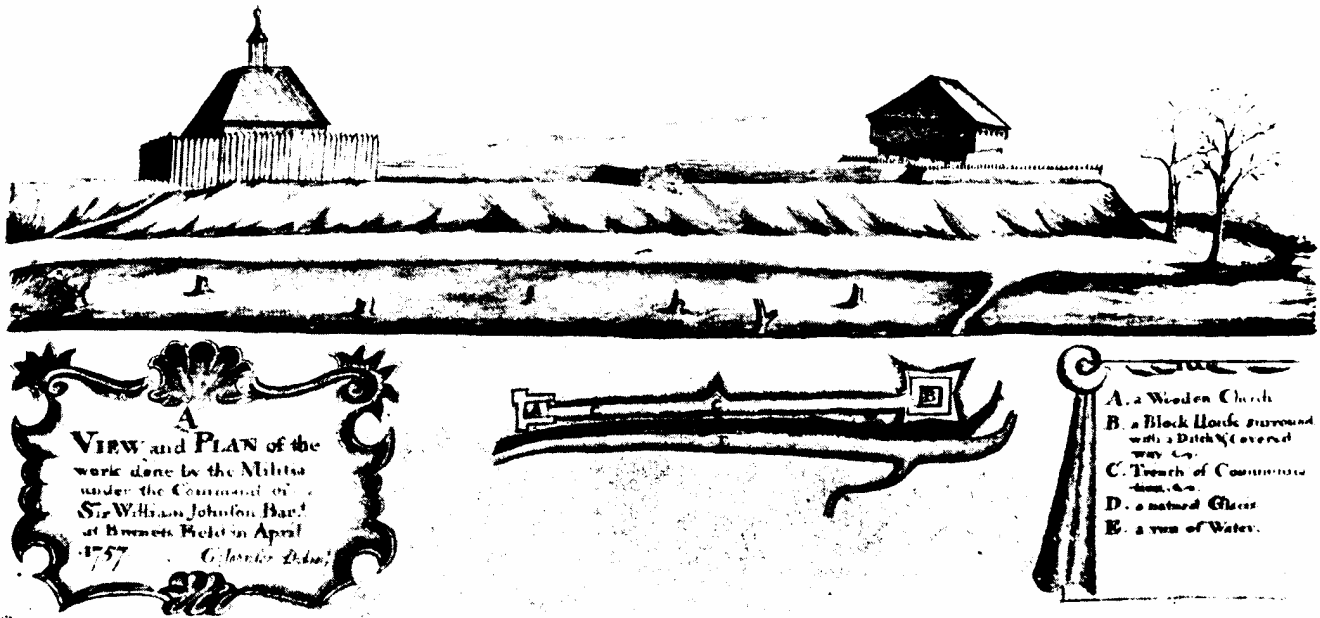


Figure 4. Plan of work done by the Militia under the command of Sir William Johnson at Burnet's Field in April of 1757 (JP 9:68).

Fort" in August of 1756 (JP 13:90). In 1756, Johnson referred to 100 men from the lower Mohawk castle: "Seventy in their Castle as they call it, besides the thirty Lieut. Williams has in the Kings Fort" (JP 9:509). The 1758 description of a conflict between Mohawks and soldiers provides further evidence that separate English and Mohawk forts existed near each other at Fort Hunter. After he was pushed away from the gate of the English Fort, a Native American returned to his house and "attempted to stop the soldiers" from entering "the gate of the Indian fort" (JP 13:105).

Johnson built a number of wooden forts during this period for the Iroquois. In May of 1756, he instructed the head carpenter to construct a fort in the Seneca Country 150 ft (45.7 m) square and 12 ft (3.7 m) high. Within this fort, two blockhouses, each one 24 ft (7.3 m) square, were also required (JP 9:457). The 1757 view and plan for the fortification at Burnet's Field, German Flats, approximate the description of the construction at Fort Hunter. At Burnet's Field a wooden church surrounded by a stockade was connected to a stockaded blockhouse by a "trench of communication" (Figure 4). At Fort Hunter a communication palisade, rather than a trench, was built between the stone church and the fort. Johnson's reconstructed Fort Hunter may have appeared similar to the later fortification at Burnet's Field, although the size may have been different.

The presence of two forts, however, is not supported in a 1757 description of Fort Hunter by a French spy.

Fort Hunter is situated on the borders of the Mohack River, and is of the same form as that of Cannatchocari, with the exception that it is twice as large. It likewise has a house at each curtain ... The pickets of this fort are higher than those of Cannatchocari. There is a church or temple in the middle of the fort are also some 30 cabins of Moack Indians [DRCH 10:677].

This same account describes Fort Cannatchocari as a square fort 15 ft (4.6 km) high with four bastions. "This fort is one hundred paces on each side" (DRCH 10:677). This indicates that Fort Hunter was perhaps 200 paces on each side in 1757, since it was "twice as large" as Fort Cannatchocari. A map by Charles Rivez (n.d.) from about 1757 shows a single fort at the mouth of the Schoharie Creek labeled "F. Wilm."

In December of 1758, Sir William Johnson described the Fort Hunter garrison as "large, & the place crowded" (JP 10:76-77). A traveler in 1769 remarked that "Fort Hunter stands half a mile up Schoharie Creek, ... & at or about the Fort live a small Party of Mohawk Indians who subsist by agriculture"(Smith 1964:24). By 1770, the Reverend John Stuart held two services every Sunday, one for the Indian converts and another for the European residents, numbering approximately 200 (Lydekker 1968:130). "Some months later

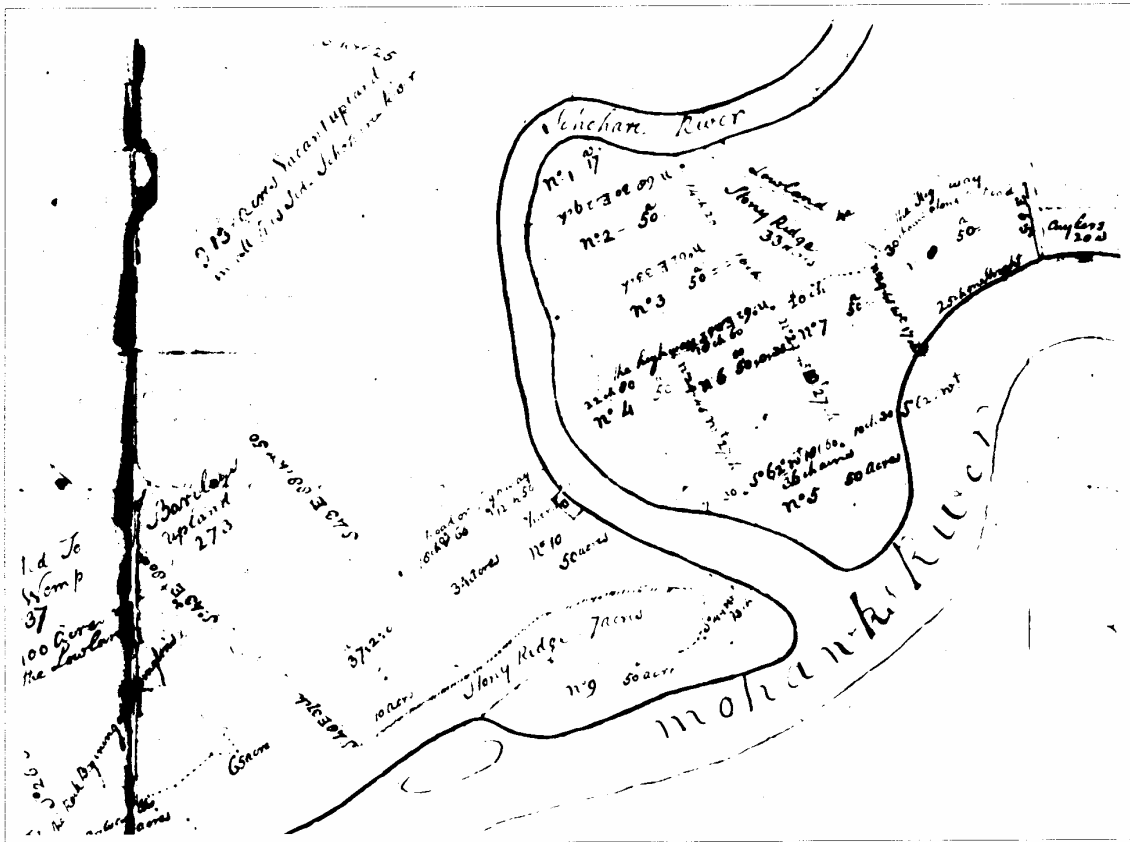


Figure 5. Map of the lands at Tionderogue or Fort Hunter (Bleecker 1783). New York State Archives.

Sir William Johnson repaired the chapel at Fort Hunter and provided it with a new floor, pulpit, desk, Communion Table, windows, belfry and bell" (Lydekker 1968:130).

In April of 1773, Johnson wrote to General Gage that an accidental fire at Fort Hunter burned one of the block houses and two of the curtain walls. There were two "good framed Houses belonging to the Indians adjacent thereto, ... the remainder of the Fort is in a very Ruinous state" (JP 8:753). The 1775 map of New York by John Montross depicts Fort Hunter to the north of the church, which is situated on the road to Albany. The church is depicted with a standard symbol, as a steepled structure. In 1778, Reverend Doty, formerly of Schenectady, wrote from Montreal:

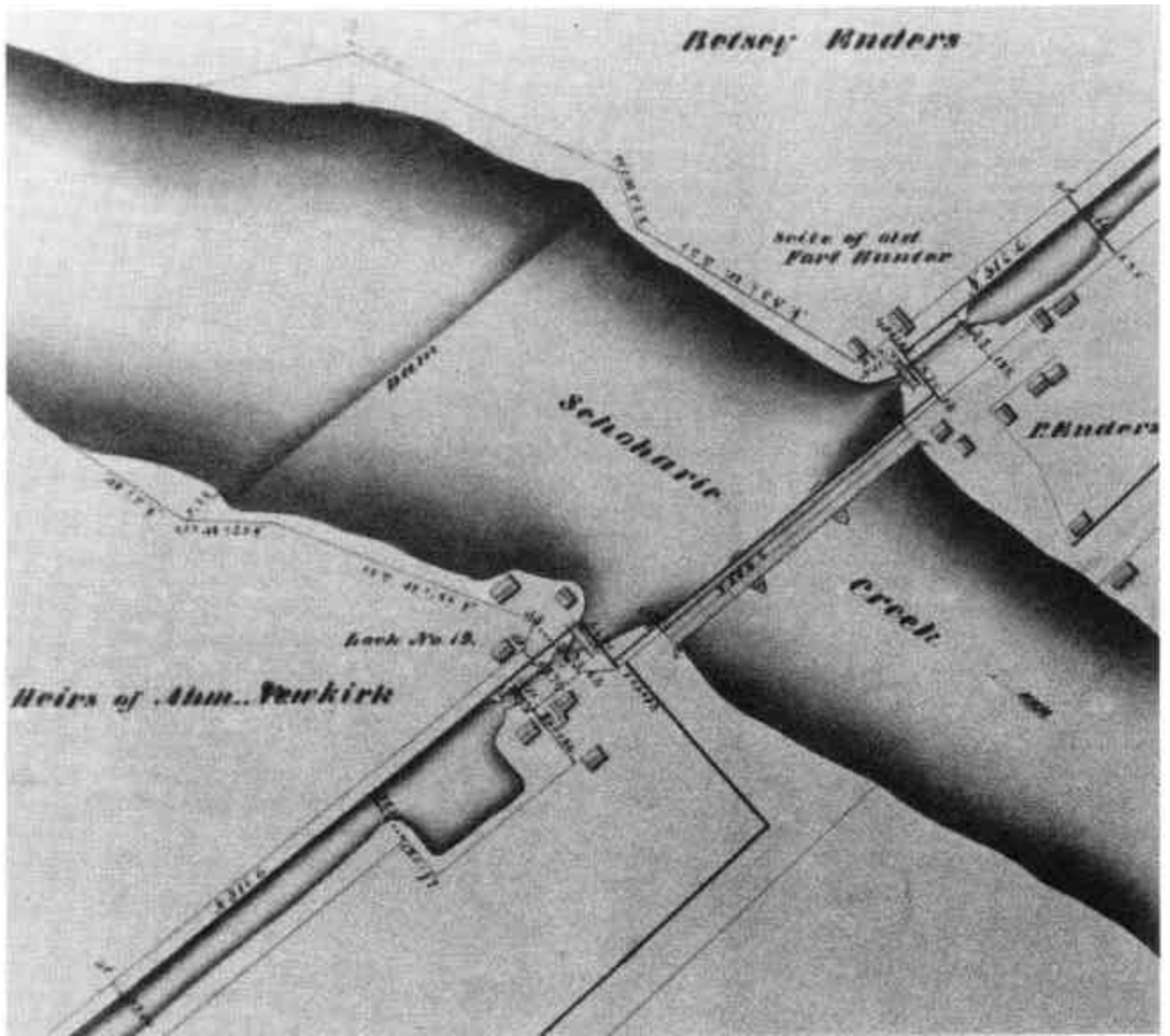
the situation of Mr. Stuart at Fort Hunter was very disagreeable when I took my flight. He had been frequently threatened, and was obliged to be very retired. A great part of his flock having joined the Royal Army, are now in this Province [Lydekker 1968:152-153].

By 1781, Reverend Stuart was in Canada, within seven miles of the Mohawk community. He wrote to the Society for the Propagation of the Gospel:

I cannot omit to mention that my Church was plundered by the Rebels, & the Pulpit Cloth taken away from the Pulpit; it was afterwards employed as a Tavern, the Barrel of Rum placed in the Reading Desk. the succeeding Season it was used for a Stable; And now serves as a Fort to protect a Set of as great Villains as ever Disgraced Humanity [Lydekker 1968:165].

The 1783 map by John Bleecker for the City of Albany shows the land divided into lots (Figure 5). The church is shown on this map in the center of a parcel on the east side of the Schoharie Creek to the north of the road to Albany. In 1785, the City of Albany leased 84 acres (34 ha) to John Vischer that included one acre (0.4 ha) for the church.

The land records for the construction of the original Erie Canal relative to the location of Queen Anne's Chapel and Fort Hunter have not been located and may not exist. New York State was not required to map the lands taken for the original Erie Canal (Getman 1921:51). Spafford noted in his 1824 Gazetteer that the "Church is about to be demolished, the canal being located on the same ground" (Spafford 1824:175-176). The 1834 canal map by Hutchinson depicts the "site of Old Fort Hunter" on the land of Betsey Enders. The site is bordered by



**Figure 6.** Holmes Hutchinson Map of 1834. New York State Archives.

the canal and the Schoharie Creek at the location of the current Visitors' Center at Schoharie Crossing State Historic Site (Figure 6).

An 1846 deed transferred a parcel referred to as the church lot "on which Queen Ann Chapel formerly stood" to John Enders from John and Elizabeth Yost (MCC 1846:53). This supports the Hutchinson map location of Fort Hunter, since Elizabeth Yost was probably Betsey Enders prior to her marriage to John Yost. This parcel was plotted on a contemporary map of Schoharie Crossing State Historic Site (Figure 7). It borders the old Erie Canal on one side and the Schoharie Creek on another. A portion of the current Visitors' Center is included as well as a portion of the former bam site.

The archaeological study of the parking lot for the Visitors' Center was within the documented lot of the church since 1741, when the church was rebuilt of stone. In August 1742, Cornealious Laning was paid for "Breaking the Church and one blockhouse" (Butler 1733:82). This suggests the stone church was not built on the same site as the 1711 church, which was destroyed by Laning after the completion of the stone church. This supports the map evidence from the second half of the eighteenth century, which shows the church south of the fort. The church lot, as plotted from the 1846 deed on the modern map, indicates the archaeological investigations were within the site of the 1741 church lot.



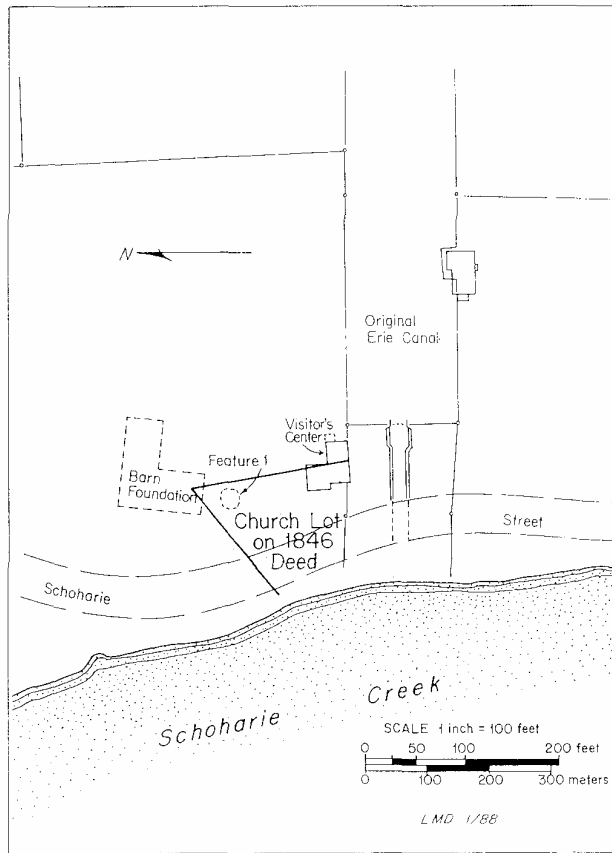


Figure 7. Location of church lot and Visitors' Center parking lot.

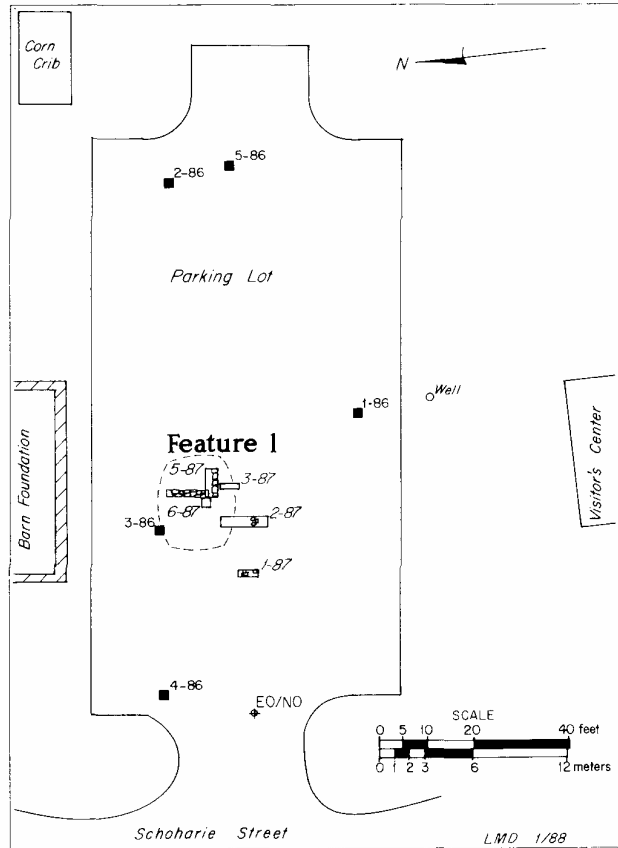


Figure 8. Archaeological plan of Visitors' Center parking lot.

**Archaeological Field Study**

The parking lot was planned to minimize ground disturbance, but the topsoil was to be removed. During the 1986 field season, archaeologists from the Bureau of Historic Sites placed five 2 ft x 2 ft (0.6 m x 0.6 m) excavation units in the area of the planned parking lot (Figure 8). These tests were conducted to locate any features or artifacts and to record the soil stratigraphy that would be left buried beneath the parking lot.

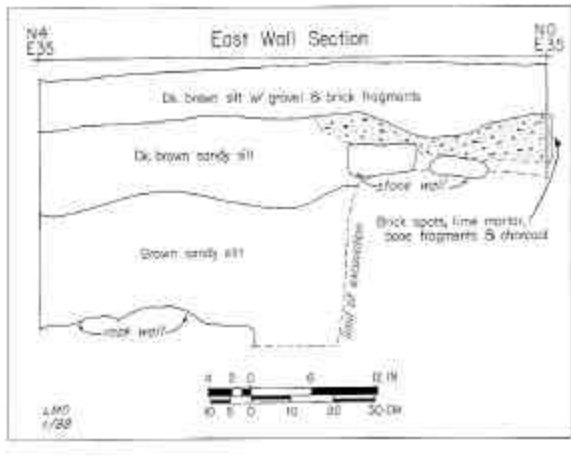
Two of these tests in the eastern end of the proposed parking lot revealed nineteenth century features. A roadbed and possibly a barn entrance ramp were located in these tests. The three remaining tests contained a gravelly loam over a fine silt which contained cultural material from prehistoric, eighteenth century, and nineteenth century occupations. The eighteenth century material included blue-decorated Chinese export porcelain, blue-decorated delft, and slip-decorated buff earthenware. This material was recovered at depths from 9 to 20 in (23-51 cm) below the ground surface.

The parking lot, as initially planned, was not to require excavation. The cultural material was not to be destroyed by the construction but was to be buried beneath it. The recovery of the remaining cultural material was not considered necessary

at this time, since it is usually preferable to leave such material protected in place at a State Historic Site unless it is threatened.

On April 30, 1987, the parking lot construction was, according to plan, monitored by archaeologists. A small bulldozer was stripping away the topsoil and late in the day revealed a rectangular concentration of charcoal, refuse bone, nails, eighteenth century tobacco pipe stems, and eighteenth century ceramics, including tin-glazed earthenware. After discussing the importance of this evidence with the contractor, it was decided to return the next day to investigate this feature, designated Feature 1 on the site map (Figure 8).

The field work was intentionally limited and directed toward determining the size and content of this feature. The contractor continued working around the archaeologists during this exploration. Surface collections from the entire parking lot area and from the vicinity of the feature were gathered. Evidence of a small, early nineteenth century structure was found in a gravel deposit that contained eighteenth and nineteenth century material items. Below this gravel a well-laid stone wall oriented north to south was present in a silty loam. In addition to the wall, this loam contained charcoal, bone, nails, pipe stems, tin-glazed earthenware, white salt-glazed stoneware, and earthenwares from the first half of the eighteenth century.



**Figure 9.** Section drawing of Test 187, Visitors' Center parking lot.

In attempting to determine the extent and age of this wall, another stone wall was located to the east in Test 5, in the same silty loam. This second wall was oriented east to west but was not connected to the first wall.

Still another and deeper stone wall (22 in [56 cm] below the surface) was located in Test 1, to the west of the wall found in Test 5. These walls do not appear to be part of the same structure because they are at different depths (Figure 9). In addition, three of the test excavations indicated at least two eighteenth century construction periods were represented. The amount of cultural material and the complexity of the structural remains indicated an extensive excavation would be required for further identification. At this point, the presence of eighteenth century material remains at the location of the parking lot was considered to be sufficient identification as long as they could be preserved.

The topsoil removal had exposed the material evidence of this feature but did not disrupt any of the stone walls. The onsite efforts of Gary Swartwout, engineer with the Saratoga Capital Region, New York State Office of Parks, Recreation and Historic Preservation, were successful in establishing a new grade limit for the parking lot. The highest point on the highest exposed stone wall was determined sufficient for the maximum depth of the parking lot grading. Eight inches (20 cm) of gravel was placed over this feature, and another 2 in (5 cm) of paving was placed over the gravel. The feature remains in place, 10 in (25 cm) below the current parking lot surface.

The cultural material directly associated with this feature appears to date from the first half to the middle of the eighteenth century. This represents the first carefully excavated and recorded material evidence of the initial colonial occupation at Schoharie Crossing State Historic Site. In addition, this evidence has not been destroyed or removed but remains buried below the parking lot.

## Artifact Descriptions

Artifacts recovered during the archaeological investigation of the parking lot ranged from prehistoric debitage to modern bottle glass. However, almost all the material was produced or discarded during the eighteenth century, and virtually every object could be classified as a dietary, personal, or architectural artifact. The analytical process was initiated by categorizing the assemblage and tabulating the results (Table 1). From each category, appropriate items were subjected to formula or typological analysis to determine the relative depositional sequences of the units excavated and the probable time span represented by each deposit. From these data, stratigraphic comparisons were made, depositional periods were determined, and significant patterns or relationships were noted for further investigation and discussion.

Diet-related artifacts comprise 48% of the total assemblage. Within this category, the organic by-products of food consumption total 199 fragments of bone, teeth, and shell. These form 57% of diet-related items. These faunal remains await analysis, but pork, beef, shellfish, fowl, and probably venison and mutton are represented in this collection and were among the foods consumed by the eighteenth century residents of this site.

The remaining 43% of the artifacts in the diet category consist of 125 non-organic remnants of the vessels and utensils employed in the preparation, preservation, or consumption of food. With the exception of four dark green bottle glass sherds, which provide the only evidence of alcohol consumption in the assemblage, two molded bottle glass sherds in a nineteenth century context, and fragments of two multi-purpose folding knives (Figure 10), the entire sample is composed of 114 ceramic sherds. Eighty-six of these sherds are diagnostic varieties recovered from sealed deposits that collectively produce a mean occupation date of 1758 when subjected to South's formula analysis (South 1977)(Table 2). This mean has a standard deviation of 25 years, which is consistent with documentary and cartographic evidence for the occupation period of the site.

One of the more notable aspects of the ceramic collection is the predominance of tin-glazed earthenware (delft) over all other varieties present (Figure 11). The ratios of delft to other wares ranged from 2.5 to 1 for buff earthenware, 3.2 to 1 for porcelain, 4.7 to 1 for white salt-glazed stoneware, and 42 to 1 compared to redware. Delft was apparently preferred and available as utility ware, table ware, and tea ware. Excavation at the Fort Herkimer Church, occupied from 1753 to 1780 in the Mohawk Valley, produced similar results. Delft constituted 31% of the ceramic collection from that site (Reese 1982).

Another characteristic of this sample is the absence of creamware, emphasized by the presence of a small sample of pearlware, a later ceramic type. This may reflect an interruption in the occupation or supply of this site sometime during the second half of the eighteenth century.

**Table 1.** Archaeological Collection from Visitors' Center Parking Lot

	Weight (g)	n
<b>I. Food Remains</b>		
A. Faunal Remains		136
B. Shell Fragments		33
C. Green Bottle Glass		4
D. Modern Bottle Glass		2
E. Ceramics		114
F. Utensils		2
Total		291
<b>II: Building Materials</b>		
A. Lime Mortar	74.3	
B. Brick	30.0	
C. Hand-wrought nails		46
D. Machine-cut Nails		54
E. Window Glass Sherds		1
F. Tools		1
G. Hardware/Harness		4
Total		106
<b>III. Personal Items</b>		
A. Clay Pipe Fragments		199
B. Clothing		4
C. Hygiene		3
D. Exchange		4
E. Miscellaneous		3
Total		213

All the fourteen vessels specifically identified in the ceramic assemblage were teawares, including four porcelain teacups/bowls and a saucer, three delft teacups/bowls, two white salt-glazed teapots and a teacup/bowl, two pearlware teacups, and a Jackfield-type teapot. At least ten other hollow ware vessels and a plate or platter were represented. Twelve vessels were unidentified (Table 2). While it is possible that the teacups or bowls were all multi-purpose drinking vessels, their association with other tea vessels provides evidence that the tea ceremony was a ritual adopted by members of the eighteenth century community at this site.

G. Stone (1970) noted that one-third of the ceramic vessels at Fort Dobbs, a frontier fort in North Carolina, functioned in social and recreational activities. He suggested that the frontier setting resulted in an emphasis on social ritual and status reinforcing activities, such as the tea ceremony.

Personal items comprised the second largest artifact category, forming 34% of the total assemblage. This group encompassed a broad range of material, including items related to apparel and adornment, health and hygiene, tobacco smoking, and varied media of exchange. Despite the potential for great

**Table 2.** Ceramic Collection from Visitors' Center Parking Lot

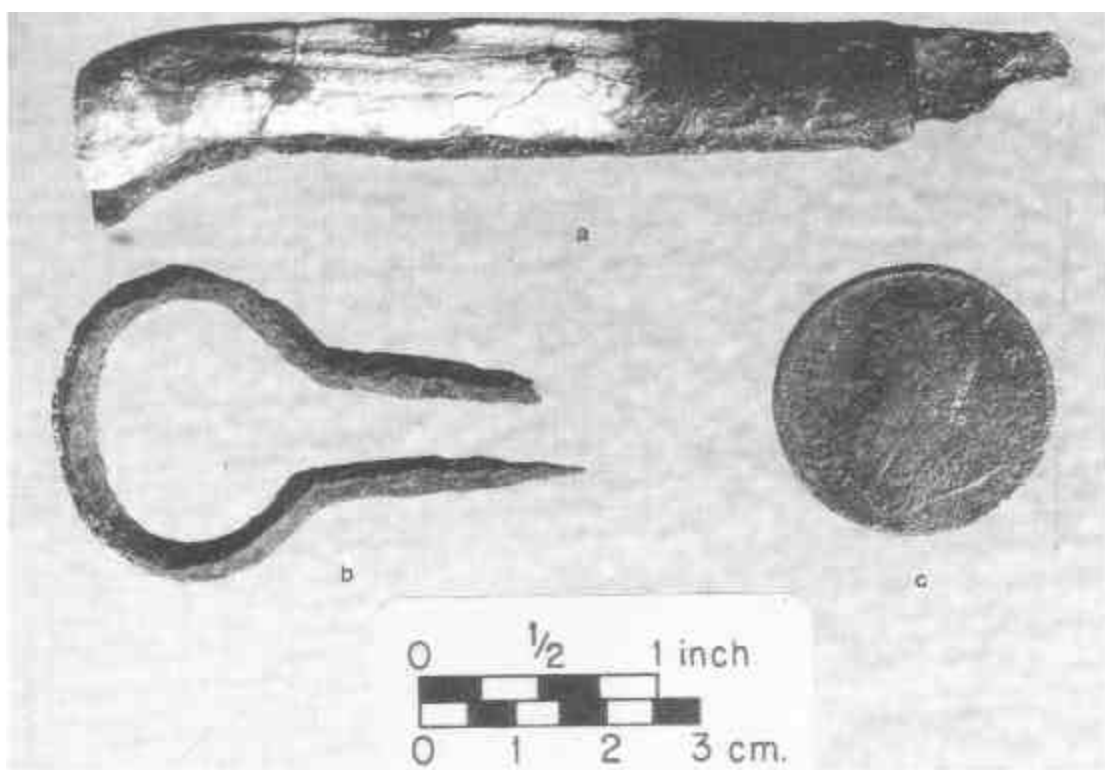
Ceramic Type	No. of sherds	No. Vessels Represented	Vessel Types
Redware	1	1	unknown
Buff Earthenware	17	7	5 hollow wares 2 unknown
Delft	42	15	3 teacups/bowls 5 hollow wares 1 flat ware 6 unknown
Creamware	0	0	0
Pearlware	2	2	2 teacups
Whiteware	0	0	0
White Salt-Glazed Stoneware	9	4	2 teapots 1 teacup/bowl 1 unknown
Gray Salt-Glazed Stoneware	1	1	1 unknown
Porcelain	13	6	4 teacups/bowls 1 saucer 1 unknown
Untyped	1	1	1 teapot
*Total	86	37	10 teacups/bowls 3 teapots 1 saucer 10 hollow wares 12 unknown 1 flatware

\*This total does not include the general surface collection.

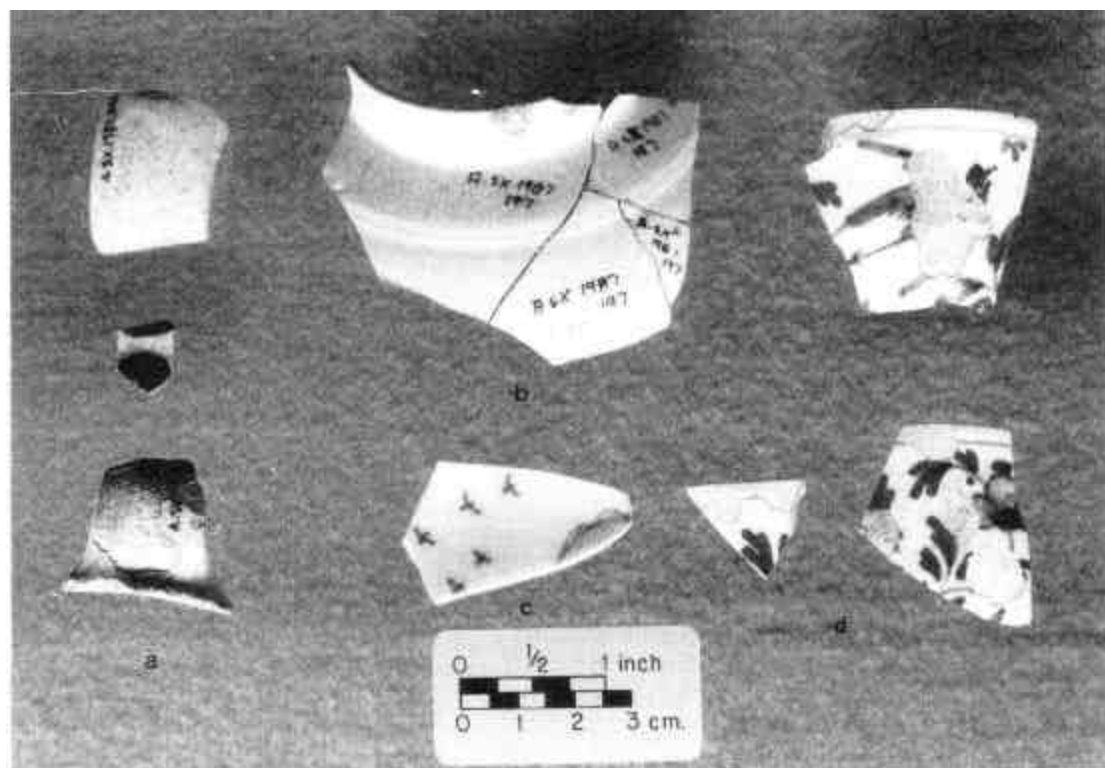
diversity among the articles in this category, its composition was actually quite uniform, given the predominance of a single artifact component.

A single straight pin, two sections of a copper-alloy shoe buckle, and a copper-alloy rivet were the artifacts associated with clothing. Health and hygiene were represented by a bone brush and two sherds from a medicine vial, and the media of exchange included two William III and one George II half pennies (Figure 10). The iron Jew's harp recovered was also included in the latter group since it was a common trade item. The remaining 95% of this category was composed of 199 white clay tobacco smoking pipe fragments which were the focus of the analysis here.

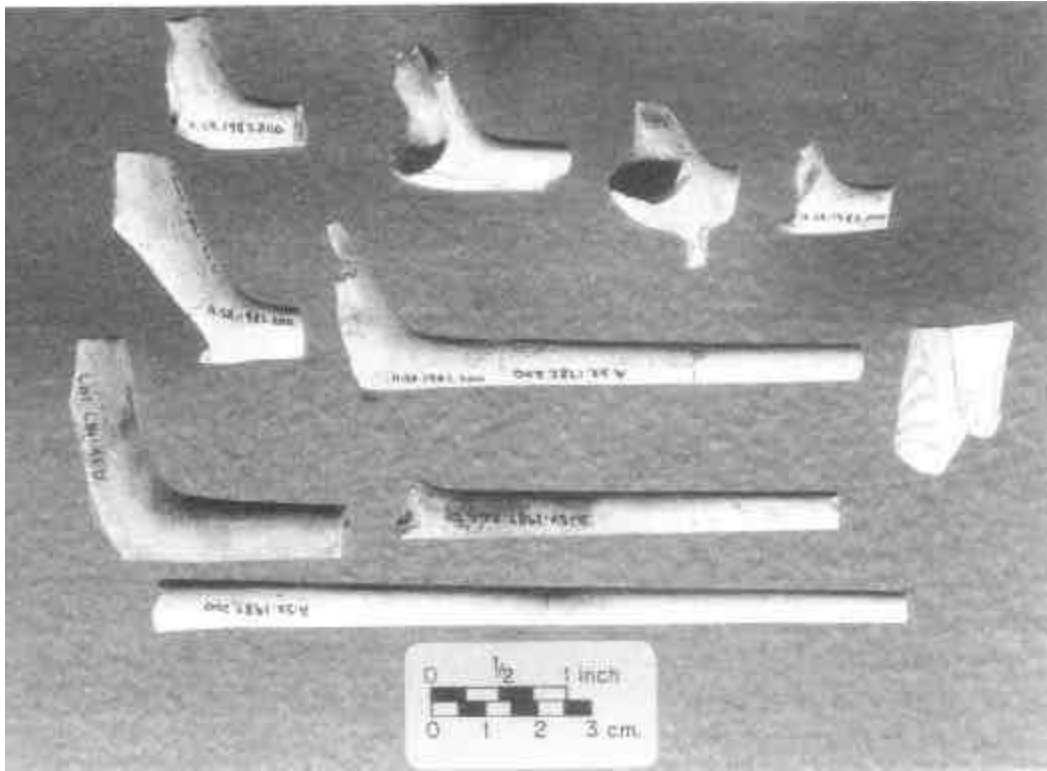
When subjected to Binford's (1962) dating formula, the pipe collection produced a mean occupation date of 1758,



**Figure 10.** a) Folding knife handle; b) Jew's harp; c) George II half penny.



**Figure 11.** Selected ceramic sherds recovered. a) buff earthenware; b) white salt-glazed stoneware; c) blue-painted Chinese export porcelain; d) blue-painted tin-glazed earthenware.



**Figure 12.** White clay tobacco pipes.

which corresponded precisely with the mean ceramic date of 1758. The mean dates derived individually for the six contexts containing both ceramics and pipes had greater variation, but in five of the six contexts the difference between the estimated dates was five years or less.

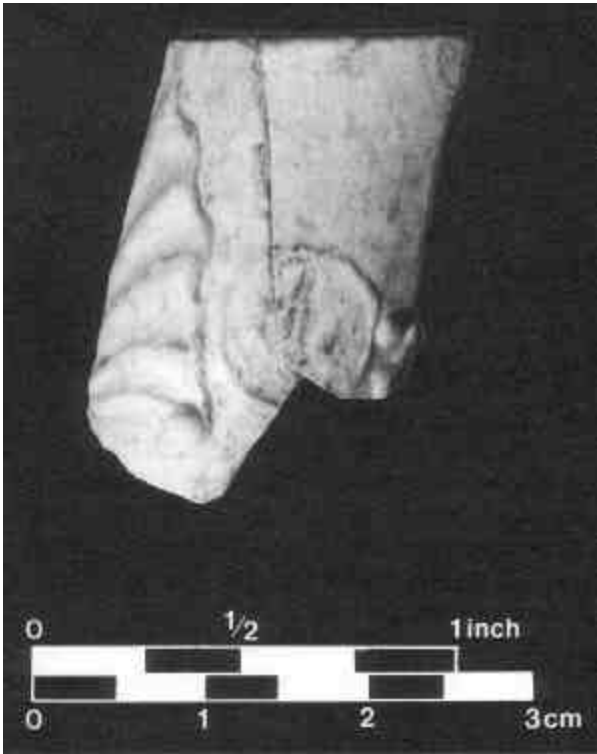
In addition, stylistic variation among the stem, bowl, and heel fragments of the tobacco pipes were representative of the eighteenth century, with the majority of diagnostic features popular between 1740 and 1780 (Figure 12). At least 15 were probably produced by Robert Tippet of Bristol during the second and third quarters of the eighteenth century (Walker 1977:1493-1502).

Eight pipe bowl fragments were marked with a plain, mold-imparted cartouche surrounding the R. Tippet name, similar to examples described by Walker (1977:1499-1501). Six other bowl fragments were impressed with the initials "R.T." only, and none of these could be cross matched with the cartouche-marked bowls. Two other bowl fragments were marked with the impressed initials, but they also had a mold-imparted, corded-circle cartouche surrounding the full R. Tippet name. A single example of an unusually marked R. Tippet pipe bowl had a plain, mold-imparted cartouche surrounding the full R. Tippet name, but the cartouche itself was surrounded by a mold-imparted rococo-like scallop-shell motif somewhat similar to a William Nicholas pipe also from Bristol and depicted by Walker

(1977:1465)(Figure 13). Pipes with the more common Tippet marks have been recovered at Fort Michilimackinac in a c.1755 context (L. Stone 1974:149), at Fort Ticonderoga and Fort William Henry (Walker 1966:94), and at numerous other sites in the Northeast.

Three other marked pipes were found in the collection, but only one was identifiable. This was a TD mark with a cartouche formed by four impressed crescents surrounding a wing-like decorative motif and the mold-imparted initials "TD." The initials and the motif have been noted on pipes dating from the 1750s at Fort William Henry (L. Stone 1974: 149) up to the Revolutionary War period (Walker 1966:94), but rarely in association with R. Tippet pipes. However, Walker (1966) noted that both were recovered from the same deposit at Fort William Henry (1755-1757), indicating that they were contemporaneous.

The other two marks could not be identified. One fragment consisted of a partial, mold-imparted cartouche in which the single initial H remained, while the other consisted of the impressed initials IM which could be attributed to any of eight pipe manufacturers in eighteenth century Bristol alone. A possible association between one or both of these marks and the Tippet pipe makers may be through Henry Hoar, an apprentice and later partner of Robert Tippet II, and James Millsom, an apprentice of Robert Tippet I. The Tippet-Hoar partnership



**Figure 13.** Detail of tobacco pipe bowl with molded shell design.

produced pipes with the full Tippet cartouche and HH initials (Walker 1977:1170), and Millsom may have had a similar arrangement. These pipes probably reflect an eighteenth century manufacturing date.

The third artifact category was composed of architectural and construction related materials. These formed 18% of the total assemblage. One hundred of the 104 artifacts were nails or nail fragments, and the balance consisted of two strap-hinge sections, a sherd of window glass, and a pair of carpenter's dividers. Samples of lime mortar, brick, and stone fragments were collected and weighed.

Due to the relatively small number and limited variety of items in this category, these artifacts were employed to evaluate the conclusions from the previous analyses of ceramics and pipes. For example, the presence of machine-cut nails in any given deposit was evidence that it post-dated the initial production of machine-cut nails, probably after 1790 (Nelson 1968).

Only three of the ten contexts identified during archaeological study of this site contained cut nails, and one of the three was a general surface collection that contained other nineteenth century artifacts such as whiteware. The two buried contexts that contained cut nails were gravel layers over an early topsoil. They probably represented a late eighteenth century to early nineteenth century structure that rested upon the deeper, buried stone structural remains from the early historic occupation.

### Summary and Interpretations

The documentary record indicates that the parking lot excavations were within the church lot as described by a deed in 1846. This was probably the site of the church since 1741, when it was rebuilt of stone. This location is not the same as that of the 1712 chapel within the initial Fort Hunter.

The material evidence supports this as the mid-eighteenth century church lot, since very few items could be attributed to the period of the first Fort Hunter. Deeply buried walls were discovered but not explored during this field work. These features may be part of the original fort.

The feature recorded and the artifacts collected may represent the church or another building(s). The material collection appears similar to other domestic sites of the eighteenth century, although this may reflect the multiple uses of the church. There are some important material differences, particularly the lack of bottle glass and window glass in this collection.

Recent excavations of an eighteenth century church in New Castle, Delaware, recovered a quantity of material items (Roberts 1987). The archaeologists attributed most of the material to construction and rebuilding activities, but the entire ceramic collection was not considered the result of workmen's lunches. Roberts (1987) suggested the possibility that on occasions when people could not return long distances after services they may have stayed in the church.

A similar situation was reported by Reese (1982) from his excavation of the Fort Herkimer Church, in Herkimer County, New York. He reasoned "the sizable quantity of bone remains, the midden feature, and the ceramic inventory all suggest an extended occupation, perhaps while the church was threatened with Indian attack" (Reese 1982:10).

The source of this problem in historic interpretation seems to be in our perception of the past, particularly the notion of structures as the scene of single, specific functions. "One would probably not expect to find a large amount of cultural debris inside the walls of a church unless that church has been used for purposes other than worship" (Reese 1982:10). The few excavations of colonial churches that have been conducted demonstrate that a wide variety of activities took place within these structures. Abernathy and Horvath (1977:23) have stated that modern churches "retain only a small part of the functions the old meeting houses served, because today there are a multitude of other specialized buildings that have taken over these roles." The earlier function of churches as focal points of public communication is reflected in the archaeological collection from these sites by the large number of smoking pipes and ceramics. The modern concept which requires separate structures for specific activities cannot be applied to the past.

Similarly, the colonial forts did not function for defense alone but were social, economic, and political centers. Johnson's interest in the construction of forts at the Iroquois castles was based in multiple purposes which are complexly

interrelated. In addition to the chapel, the original Fort Hunter of 1712 contained four blockhouses and possibly a school. During the Seven Years' War Johnson requested that smiths reside at each fort and warehouses be provided for trade goods. By 1758, there were 30 Mohawk cabins inside Fort Hunter and houses at each curtain wall. These colonial forts were "special points of commodity distribution and exchange" (Guldenzopf 1984:85).

The Revolutionary War resulted in a number of changes in the occupation and use of Fort Hunter and the chapel. The archaeological evidence recovered from this site, however, does not reflect this latter period, possibly subsequent to the 1773 fire which destroyed two walls of the fort.

Early in the nineteenth century, a small outbuilding was constructed over the buried walls of the colonial structure discovered in the parking lot. This building was identified from the cut nails present and the patch of gravel observed. Hutchinson's (1834) map of the Original Erie Canal indicates two small buildings in the vicinity of the present Visitors' Center. The building that existed in the parking lot over the eighteenth century feature was either too small to appear on the 1834 map or was no longer present by that time.

The discovery of an eighteenth century feature at Schoharie Crossing State Historic Site during this field study has provided evidence of the colonial occupation of Fort Hunter. The archaeological remains initiated a reevaluation of historical documents regarding this site. The material collection is maintained at the Bureau of Historic Sites, and the feature has been preserved in place, beneath the parking lot for the Visitors' Center.

### Acknowledgments

The archaeological investigation of the church lot within the boundaries of Schoharie Crossing State Historic Site was carried out with the support and encouragement of James Gold, Director of the Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation; Paul Huey, Senior Scientist - Archaeology, Bureau of Historic Sites; and Cheryl Gold, Historic Preservation Supervisor, Saratoga Capital Region. Thanks are also extended to Donnarae Gordon and Janice Fontanella, Site Managers, for their interest and support of the project; and to Gary Swartwout, Engineer, Saratoga-Capital Region, for his timely assistance. Finally, we would like to thank Lois Feister for her assistance in the field and in the laboratory; Joe McEvoy for his assistance in the field, in the laboratory, and for the photography; Linda Demers for the drawings; and Nancy Demyttenaere for her conservation of the artifacts.

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# The Remsen Hill Site, Mount Sinai, Long Island, New York A Preliminary Excavation

Robert J. Kalin, Suffolk County Community College  
Kent Lightfoot, University of California, Berkeley

*Formal chipped-stone tools, mineral debitage, firecracked and reddened rock, mollusc shell, bone, and charcoal were recovered from a ridge-top prehistoric site which covers an area of about one fifth acre. Analysis of the mineral debitage suggests that formal tools were manufactured on site. Remsen Hill is interpreted as a probable summer encampment which may have been seasonally occupied because it provided accessibility to coastal and strategic views of the harbor. These results appear to support a nomadic foraging pattern, for Late Archaic prehistoric residents of central Long Island.*

## Introduction

During the course of a Cultural Resources Assessment Survey for a proposed subdivision of a 0.9-ha (2.2-acre) parcel south of Shore Road in Mount Sinai, Suffolk County, New York, a high concentration of

prehistoric artifacts was discovered during the routine subsurface phase of the study. Since the area was planned for development, an excavation was conducted in November 1986 by volunteer students from SUNY at Stony Brook and Suffolk County Community College under the direction of the authors. This report is the result of the data gathered during that preliminary excavation. The parcel was formerly owned by the Remsen family, who reside nearby.

## Geographic Setting

From the west end of the island eastward to Orient Point, Long Island is almost everywhere faced by a steep marine scarp that rises in many places over 30 m (98 ft) above the sound. In a number of areas the scarp is broken by inlets or harbors, one of which is Mount Sinai Harbor, located about 2 km

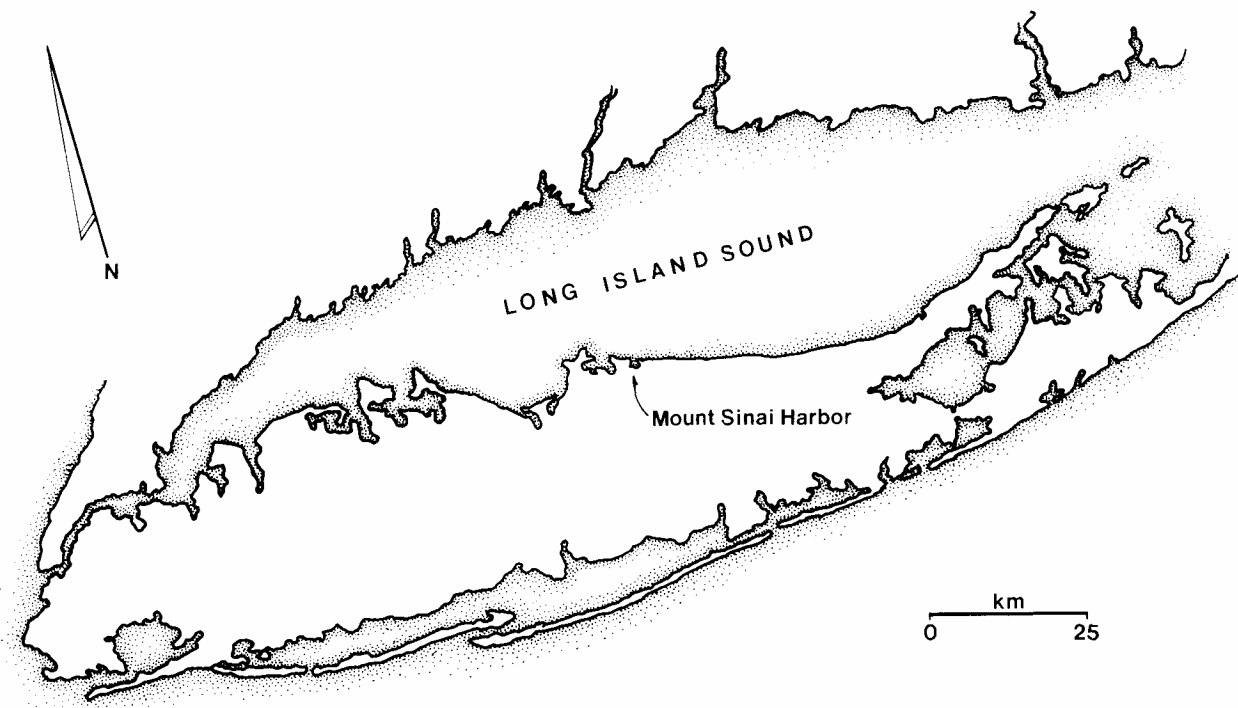


Figure 1. Map of Long Island showing position of Mount Sinai Harbor.

(1.2 mi) east of the village of Port Jefferson on the north shore (Figure 1). The harbor is a small (about 2 km [1.2 mi] square), shallow embayment surrounded on three sides by glacially derived highlands and on the north by a wave- and current deposited bay-mouth bar. Today an inlet on the west end of the harbor provides access to the sound. Historical and physical evidence indicate that the entrance has migrated from the east end of the bay to its present position in historic times. The highlands that surround the harbor area are broken by small streams which enter (or formerly entered) the bay on the east, south, and southwest.

The Remsen Hill Site occupies a ridge which is oriented east-northeast and rises to a height of about 18 m (60 ft) above sea level. A view of much of the harbor, with particularly clear views of the eastern end, is possible from here. The site covers an area of somewhat more than 800 sq m (0.08 ha or about 0.2 acres) within the boundary of the Remsen parcel. We were unable to test beyond the Remsen boundaries. However, steep ground to the west probably precludes the site extending in that direction, and its extent to the south on privately owned land has not been determined.

Cultural materials were collected from subsurface test units on the ridge noted above for a distance of about 53 m (175 ft). Along this entire distance the topography slopes away steeply (22% grade) from the ridge toward the harbor shore. A narrow gully, the Colluci gully, adjoins the site on the west. Access to the site from the harbor is most easily accomplished by means of this gully, other natural access points being too steep to climb comfortably. To the south the land rises to about 60 m (197 ft) above sea level on an uneven glacial highland. There are no apparent freshwater surface sources within one-half kilometer of the site. However, low-tide freshwater seeps occur at several places along the gravelly beach on the south side of the harbor. The closest is about 100 meters distant over terrain that would require a vertical climb of over 20 m (65 ft).

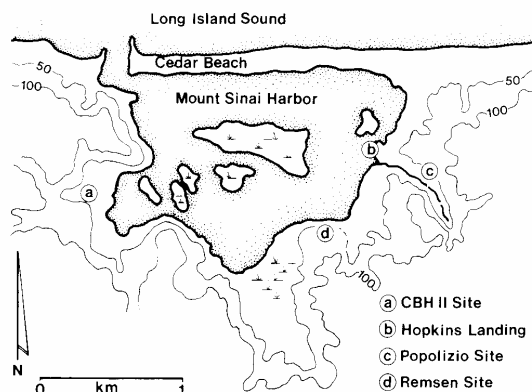


Figure 2. Mount Sinai Harbor.

### Soils of the Site Area

The soil type found in the study area is the Carver Plymouth E soil, a deep, excessively drained soil which is very low in available moisture and low in natural fertility. The hazard of erosion is moderate to severe on this soil type due to its physical properties, low fertility, and steep slope. One of the outstanding features of this soil is its coarse cobbly nature. On moraines it may have as much as 30% gravel and a few cobblestones (Warner 1975:67). It is listed as a good source of "granular material" (Warner 1975:38-40). These raw materials may have been utilized by the site occupants for tool-making and heat-transfer processes.

The soil structure observed in the test units consists of an upper medium gray-brown gravelly sand and a lower (at about 20-30 cm; 8-12 in) yellow-brown gravelly sand. In Units 7N6E and 8N21E a lower layer of fine yellowish sand occurred. Most of the area studied exhibited a well-defined plow zone.

### Previous Work in the Area

The Mount Sinai area has been the focus of more archaeological activity than most other areas in central Suffolk County. A number of coastal midden sites were recognized here early in the century and over the years were studied both formally and informally. Formal excavations included those of E. Johannemann (1973), who located and excavated the Crystal Brook Holland Site II on the western shores of the harbor in 1973; Michael Gramly's and Gretchen Gwynne's excavations on the eastern shores of the harbor in the vicinity of Pipestave Hollow at the Hopkins Landing and Popolizio loci (Gramly 1977; Gramly and Gwynne 1979; Gwynne 1982); and Wizniewski's and Gwynne's (1982) study of the Tiger Lily Site on the west side of the harbor (Figure 2).

Gwynne (1979:14) describes the harbor as an area of

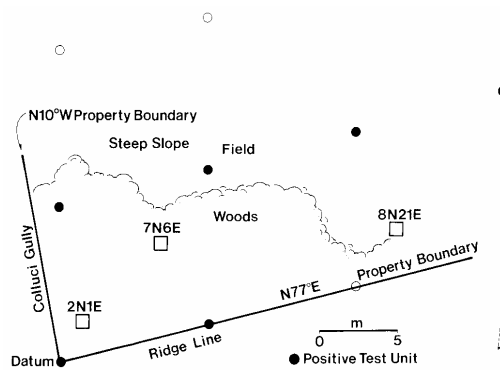


Figure 3. Remsen Hill Site.

abundant plant and animal resources ringed by a culturally complex prehistoric habitation zone. Although the amount of archaeological inquiry has been significant for so small an area (though unfortunately some information remains unpublished), and it has stimulated a number of archaeological interpretations (Gwynne 1982; Lightfoot, Kalin and Moore 1985), the cultural information is still incomplete. It is the purpose of this preliminary report to add, in a timely way, to the published data base concerning this culturally rich and archaeologically significant area.

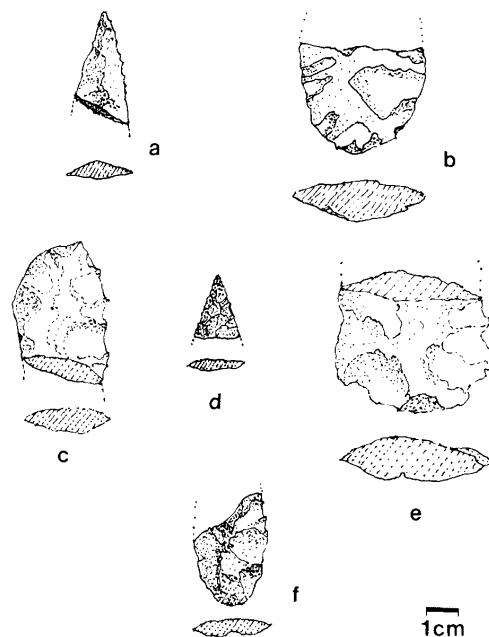
## Methods

An initial surface survey was conducted using a team of trained archaeology students who followed predetermined transects laid out over the parcel. The survey crews examined the surface for evidence of cultural remains. No surface features, artifacts, or evidence were recorded. The subsurface phase of the survey consisted of digging test units at the intersection of grid lines separated at ten-meter intervals. We dug 23 test units in this manner and screened the soil through a 0.6 cm (0.25 in) mesh screen. We found about 43% of the test units to be positive (i.e., contained artifacts of either an historic or prehistoric association). Prehistoric artifacts were concentrated in the southwest corner of the parcel and consisted of lithic debitage, shell, one spent core, and charcoal. The materials were of such concentration, depth, and antiquity that a preliminary excavation seemed called for.

After permission from the present landowner was granted, a preliminary excavation was planned and carried out during several days in November 1986 by the authors and student volunteers from SUNY at Stony Brook. We established a site datum at the southwest corner of the property and laid out an excavation grid of one-meter (3.3 ft) intervals. Three 1 m x 1 m (3.3 ft x 3.3 ft) test squares were randomly chosen from the artifact bearing area. Excavation proceeded at 10 cm (4 in) arbitrary levels by ratabage until a sterile level was encountered.

## Results

Eighteen formal chipped stone tools were recovered from the more than 2.2 cu m (2.9 cu yd) of excavated soil at the Remsen Hill Site. Of these, nine (50%) were points or point fragments, six (33%) were defined as knife blades, one (6%) was a pebble-core discard or scraper, and two (11%) were unclassified (Figures 4-6). The ratio of knife blades (6) to projectile points (9) was 1:1.5. A similar ratio (1:1.3) was reported by Lightfoot, Kalin and Moore (1985) at an inland site surface scatter (Lightfoot, Kalin and Moore 1985:33). The projectile points recovered were mostly fragments of a lanceolate form, probably Wading River (Ritchie 1961:131). Two points were collected whole or nearly so. One of these was a small Wading River "bird" point (Figure 6a) and another, a crude percussion-



**Figure 4.** Line drawings of selected artifacts from Remsen Hill Site. Unit 7N6E, Level I: a) a point fragment, b) blade base. Unit 2N1E, Level I: c) blade with use wear on one side. Unit 2N1E, Level II: d) flint point fragment, e) blade base. Unit 2N1E, Level IV: t) point base.

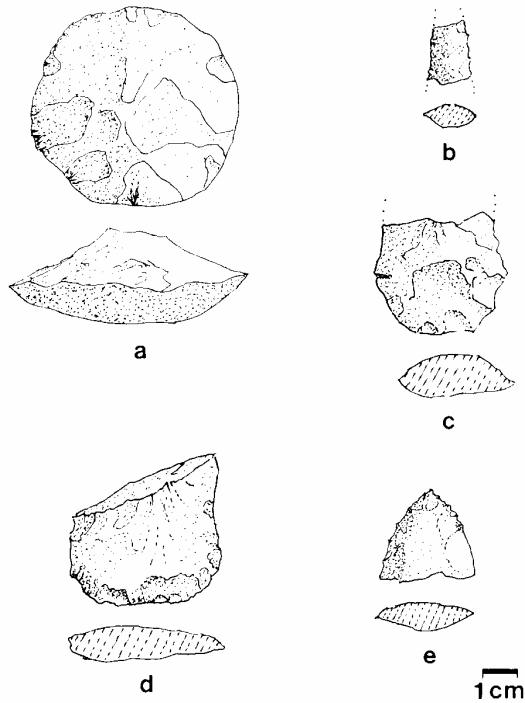
chipped, triangular point found at the lowest level of Unit 8N21 E (Figure 6e). A point fragment from Level II of 2N1E was a homogeneous gray flint, the others were all of quartz. These data indicate a strong relationship with Late Archaic point types.

A large percentage of the materials recovered were quartz flakes or debitage. These are presently being analyzed for evidence of use-wear, and data will be presented in a future publication. The distributions of the various classes of flake types have been evaluated for this report. The full inventory of artifacts recovered from the Remsen Hill Site is presented in Table 1. This table includes the artifact type and provenience for all materials from Units 2N1E, 7N1E, and 8N21E.

## Evaluation of Lithic Debitage

It has been suggested by a number of researchers that the study of lithic debitage provides useful data in regional studies (Barber 1981; Binford and Quimby 1963; Schiffer 1976; Wilmsen 1970).

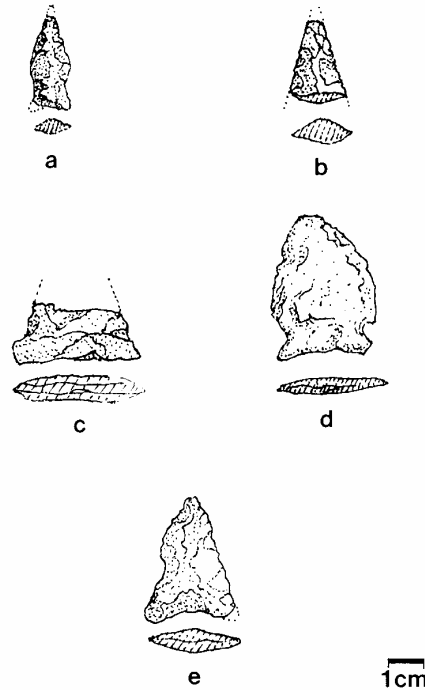
Lightfoot, Kalin and Moore (1985) studied the surface distribution of chipped stone artifacts at an inland lake-shore site (SB 53-01) in central Brookhaven Township. In an attempt to classify the different stages of core reduction represented at



**Figure 5.** Line drawings of selected artifacts from Unit 8N21E. a) partially worked pebble core or scraper; b) point fragment; c) blade base; d) blade base; e) large point or spear point fragment.

SB53-01, three categories of unutilized flakes were defined. The first, primary decortication flakes, contains those flakes initially removed from the outside of the core; these have a high percentage (90-100%) of cortex or pebble rind. The second category, secondary decortication flakes, has a surface exhibiting typical flake scars and approximately 30-90% cortex material. The third category, tertiary decortication flakes, consists of flakes with little or no cortex (0-30%) and typical flake scars. Shatter was defined as fragments with no cortex and having no attributes characteristic of flakes (Lightfoot, Kalin and Moore 1985:31).

Calanan (1981) excavated a multicomponent shell midden and lithic workshop (the Greenwich Cove Site) in the Narragansett Basin of Rhode Island, where 90% of the over 18,000 pieces recovered were of quartz. He assumed that the documentation of quartz-use technology and reduction characteristics (i.e., how quartz pebbles and cores were reduced to tools) could provide information on resource exploitation. He found that primary reduction flakes made up 6.1% "of all lithic materials recovered within the test pits at Greenwich Cove" (Calanan 1981:79). He suggests that different stages in the reduction process are found at different areas at the Greenwich Cove Site. Areas 2 and 5 had between 9% and 12% primary



**Figure 6.** Line drawings of selected quartz artifacts from Unit 8N21E. a) small Wading River point, Level II; b) point fragment, Level IV; c) point base, Level VII; d) knife blade, Level IX; e) projectile point, Level X.

flakes, between 74% and 61% tertiary flakes, and the highest number of cores recovered. Other areas had a significantly lower percentage of primary flakes (about 4%) but a high percentage of tertiary flakes, between 75% and 89% (Calanan 1981:81).

Using this class of information, data could be gathered on lithic tool manufacture processes to answer the question: Was the manufacture process completed at the Remsen Hill Site or were lithic blanks prepared elsewhere and only finished and sharpened at the site?

In an attempt to establish some baseline data on the distribution of flake classes formed from the reduction of a quartz pebble by percussion, a simple empirical study of this process was carried out on several beach pebbles. After several trials, the senior author found that out of 295 flakes recovered, 11% were primary flakes, 8% were classed as secondary flakes, and 64% were tertiary flakes. Shatter represented 17% of the total. The ratio of primary flakes to tertiary flakes was found to be 1:9. Though a more experienced knapper would probably have produced larger and thus fewer flakes, the results provide a preliminary means of evaluating the lithic materials recovered at the site. Comparison with values recorded at the Remsen Hill Site indicate a rough correlation (Table 1).

Evaluation of the percent distribution of only tertiary flakes for the three test units at the Remsen Hill Site indicates that this value varies considerably from level to level, ranging from 16% to 100%, with a mean value of 58%. However, Test Unit 8N21E, for which we have the most data, has a percent distribution of tertiary flakes of from 40% to 88% with a mean and modal value of 67%. These values are computed for only those levels having debitage (Figures 7-9).

These data tend to support the hypothesis that a complete lithic manufacture process was carried out at the Remsen Hill Site. In addition the results somewhat correspond to the data from site SB53-01 (an inland, lake-shore, presumptive fall/winter residential base) where 1,875 pieces of chipped stone were collected from the surface (c. 0.2 ha) and categorized. Of the total compliment of flakes (utilized and non-utilized), the authors classed 8.7% as primary flakes, 26.1% as secondary flakes, and 60.9% as tertiary flakes. Shatter represented 4.2% of the total (Lightfoot, Kalin, and Moore 1985:33).

**Other Lithic Artifacts**

Large quantities of fire-cracked, crazed, and reddened rock were recovered from all three units. The largest concentration occurred at Level III and IV in Unit 8N21E where two probable hearths were found. Higher concentrations of firecracked rock were found in the upper levels of all units. Field weights of total artifacts reflect this in the higher total weights for the upper levels of all units (Figures 10-12).

The fire-cracked cobbles (ranging in size from c. 6 cm to 15 cm) were apparently heated to a high temperature, then cooled rapidly by immersion. They were, no doubt, used for heating water for cooking or food-processing purposes.

**Shell Remains**

More than 450 g (1 lb) of crushed mollusc shell and shell fragments were recovered from the three test units. Most were found in the upper five levels of Unit 8N21E. The identifiable remains were primarily hard shell clam (*Mercenaria mercenaria*) soft shell clam (*Mya arenaria*), scallop (*Pecten irradians*), oyster (*Crassostrea virginica*), and whelk (*Busycon sp.*) were also recovered (Figures 13 -15).

At the present time all of these species, except scallop, may be readily collected from the harbor waters in close vicinity to the site. One suspects that the inhabitants of the Remsen Hill Site waded in the shallow waters in the vicinity of the base of the hill and treaded the bottom for hard shell clams as do modern shellfishers. They may have also dug soft shell clams in shallow water or along the banks of tidal flows by hand. Whelk, scallops, and oysters were probably collected by chance as is the case with modern foragers in the same waters, who add mussels, oyster, and the occasional whelk to their catch when they encounter them.

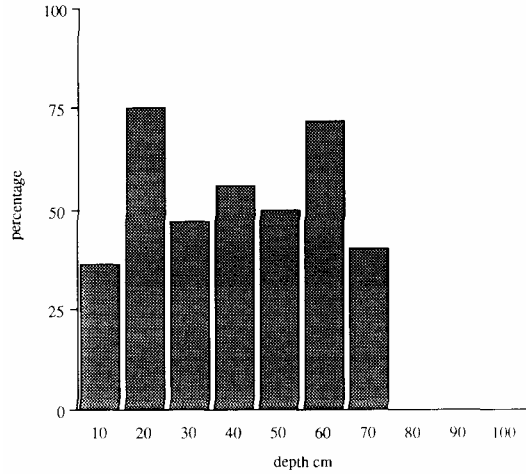


Figure 7. Percentage of tertiary flakes, Unit 2N1E

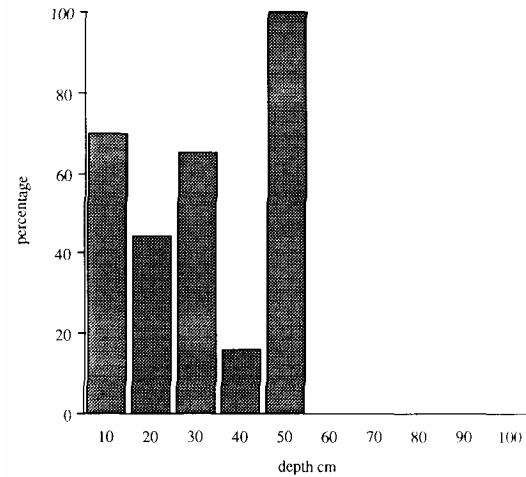


Figure 8. Percentage of tertiary flakes, Unit 7N6E.

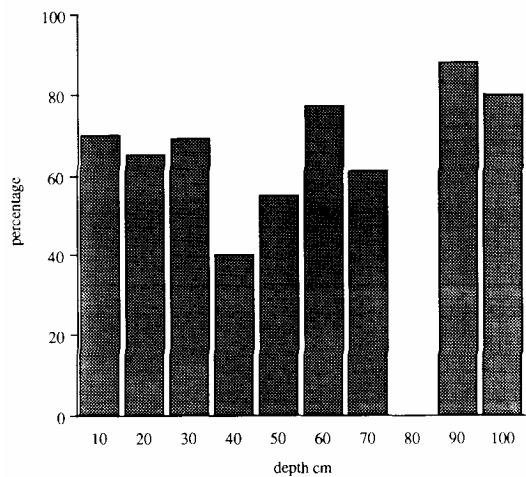
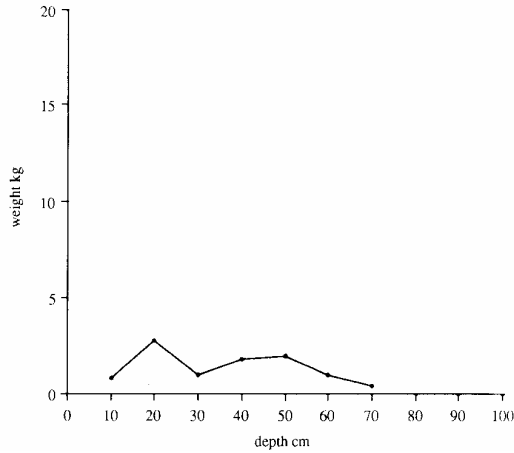
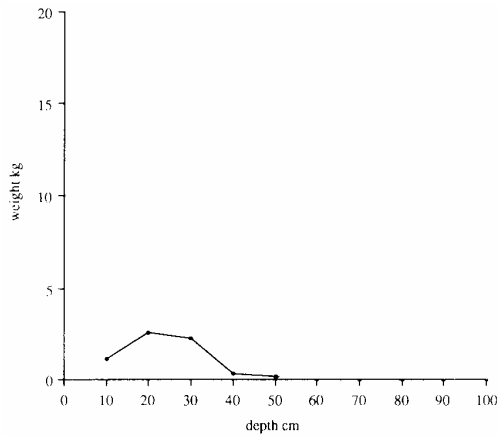


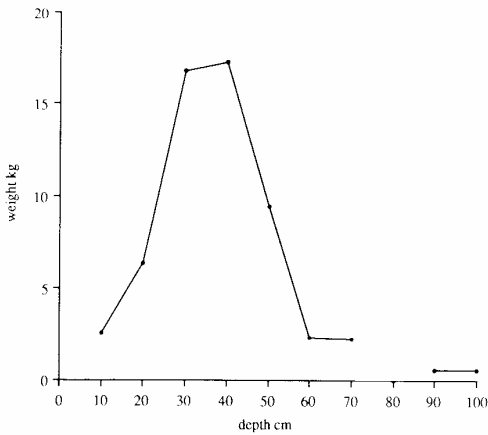
Figure 9. Percentage of tertiary flakes, Unit 8N21E.



**Figure 10.** Weight of total artifacts, Remsen Site Unit 2N1E.



**Figure 11.** Weight of total artifacts, Remsen Site Unit 7N6E.



**Figure 12.** Weight of total artifacts, Remsen Site Unit 8N21E.

**Bone**

One small piece of animal bone, a parietal bone from a small animal, was recovered from Level I of Unit 7N6E.

**Features**

Two probable fire pits or hearths, with concentrations of fire-cracked and reddened rocks, were recorded in Levels III and IV of Unit 8N21E. An undefined stain was observed in the west wall profile of Unit 7N6E. The stain, which extended to 35 cm (13.8 in) below the present surface, was pointed at the end and had a diameter of 10 cm (3.9 in).

**Historic Materials**

Historic materials were confined to the upper 20 cm (7.9 in) in a disturbed soil (plow) zone. These included glass, historic ceramics, coal, and brick.

**Discussion**

Gramly (1977) excavated a major locus of the Late Archaic, Squibnocket Complex, at Pipestave Hollow on the eastern shore of Mount Sinai near Hopkins Landing (Figure 2). The site, occupying the high ground along the edge of small stream flowing or formerly flowing through Pipestave Hollow covered an area of about 1.2 ha (3 acres) or about IS times that of the Remsen Hill Site. Gramly found a restricted range of flaked stone tools, shell, bone and charcoal, and points of the stemmed, triangular, and weakly side-notched varieties (similar to those found at the Remsen Hill Site), which he attributed to the Late Archaic. Features encountered were shallow basins filled with fire-cracked rock, shell, bone, and debitage from tool making. Shellfish remains were dominated by oyster and scallop. A radiocarbon date (3965 ± 140 B.P.) placed the Pipestave Hollow Site within the dating range of the Squibnocket Complex. The lack of post molds and hearths at the site lead Gramly to conclude that the site was occupied only during the summer months when cooling breezes were welcomed and need for shelter was slight. He notes, however, that other areas of the site may have been occupied in cooler weather (Gramly 1977:163). Comparison of the reported data with that found at the Remsen Hill Site strongly suggests a temporal and cultural relationship.

Studies of Long Island prehistoric remains have tended to emphasize the coastal region and the analysis of shell middens. Several of these studies (Kaesler 1974; Ritchie 1959; Wyatt 1977) have suggested that prehistoric hunter-gatherers practiced a seasonal-round economy, setting up their short-term encampments along the coastal strip and even in the interior to exploit seasonally available foodstuffs. Lightfoot, Kalin, and Moore (1985) reevaluated the role of the interior woodlands

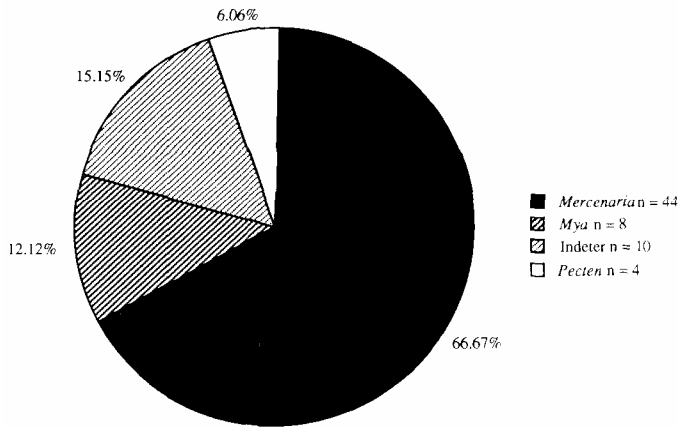


Figure 13. Weight of shell (g). Unit 8N21E, Level I.

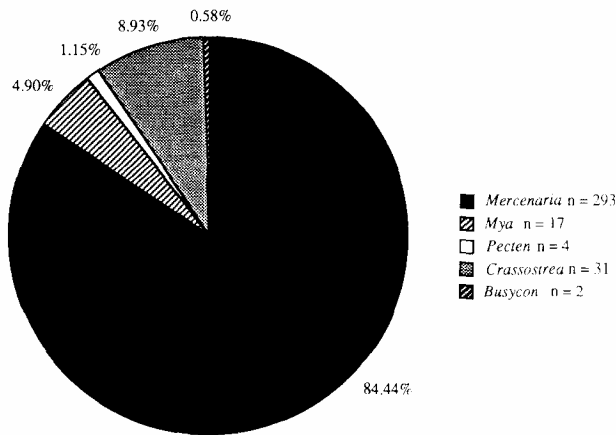


Figure 14. Weight of shell (g). Unit 8N21E, Level 11.

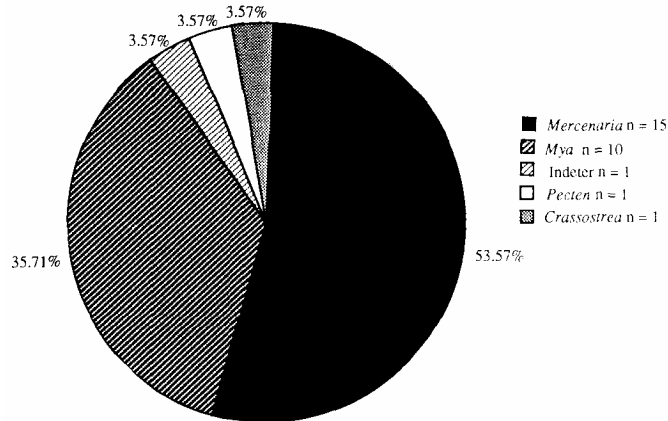


Figure 15. Weight of shell (g). Unit 8N21E, Level III.

and documented the presence of a wide range of site types, arguing that the interior served as an important resource base for obtaining critical materials such as deer and mast nuts.

Other studies of coastal sites (Gramly 1977; Gramly and Gwynne 1979; Gwynne 1982; Wisniewski and Gwynne 1982) in the Part Jefferson and Mount Sinai areas have suggested that these midden sites were occupied on a year-round basis. Gwynne (1982), who carefully documented a considerable body of evidence that supports a late-fall or even winter residence, hypothesizes that the sedentary settlement pattern was facilitated by the placement of these sites along rich estuaries where a variety of marine, coastal, and terrestrial resources could have been exploited in close proximity to the main residence base all year long.

Although the results presented here are preliminary, the evidence indicates that small bands of Late Archaic aborigines made a specialized summer encampment on Remsen Hill. This site appears to have been chosen on the basis of several criteria, among which were accessibility to coastal resources, probable relief from heat and insect pests, strategic views of the harbor basin, and possible access to lithic resources. In this way it does appear to relate to the larger question of the nature of the settlement pattern in and around Mount Sinai Harbor in Late Archaic times.

The discovery of this site raises some interesting questions. If aborigines utilized the area in summer, did they remain in winter also? Were the interior portions of the Pipestave Hollow Site, as suggested by Gramly (1977) and Gwynne (1979) used as a winter residence area? What was the relationship between the small Remsen Hill Site and the much larger Hopkins Landing locus at Pipestave Hollow? Was the large encampment a later manifestation of Lake Archaic occupation and thus evidence for Late Archaic population growth (Gramly 1977).

Another possibility is the following. A number of Late Archaic campsites, some larger than others, were maintained around the harbor shore by small bands. These bands gathered in vicinity of the harbor where seasonal resources were concentrated and plentiful during the summer months. The coastal camps were then abandoned as winter approached, in order to exploit resources such as deer and mast nuts which were a dispersed resource found in the interior woodlands. Some of the sites were more desirable than others (Hopkins Landing) and possibly were used more frequently and by larger bands over a more extended period of the year. Evidence that tends to support this hypothesis is the recent recovery of mostly lithic materials in a series of small interior sites (Lightfoot, Kalin, and Moore 1985). The lithic remains of these sites have been classed as Late Archaic to Late Woodland. The Late Archaic elements are almost identical to those recorded at the coastal sites. Kalin (1983) reported a number of surface finds in the vicinity of a series of glacial kettles in north-central Suffolk County and suggested the possibility of a cultural relationship between the glacial kettle area and Mount Sinai, about one

hour's walk away (c. 6 km, through a zone of low topographic resistance. This line of reasoning supports a nomadic foraging pattern (Binford 1980, 1982) for Late Archaic residents of central Long Island, in which, during the course of a seasonal round, multiple residential bases might have been set up in both interior and coastal areas. These bases would have served as points of exploitation for seasonally available resources. When these resources were reduced or became unavailable, the band moved on (Lightfoot, et al. 1985).

This report also underscores the inadequacy of the "closeness-to-potable-water test" for evaluation of cultural sensitivity of an area. This traditional rule of thumb suggests that sensitive areas containing prehistoric archaeological remains will be found primarily near easily accessible sources of potable water. This suggests that this is not always the case and that sites can be found some distance from modern sources of fresh water, as is the Remsen Hill Site. With the present rate of development of highly desirable lands in and around coastal zones and the incomplete nature of our knowledge of the settlement pattern and life-ways of prehistoric Long Islanders, closer scrutiny should be given to hill-top parcels - even those relatively distant from known water sources.

### Summary

Eighteen formal chipped stone tools were recovered from the more than 2.2 cu m (2.9 cu yd) of excavated soil at the site. The artifacts, though mostly fragments and difficult to categorize, indicate a strong relationship with Late Archaic point types.

An attempt was made to determine whether lithic debitage recovered at the site was the result of a process in which pebble cores were carried to the hill site location and there reduced to tools. A preliminary empirical study of the distribution of flake classes formed as the result of the reduction of several quartz pebbles to a rough tool by direct percussion was carried out. The senior author found that out of 295 flakes recovered, 11% were primary flakes, 8% were classed as secondary flakes, and 64% were tertiary flakes. Shatter made up 17% of the debitage. The results provide some baseline data on what probable lithic classes could be found where pebbles were processed into finished chipped-stone tools. In addition, the data indicate that the occupants of the Remsen Hill Site reduced pebbles and small cobbles, either carried to the site or dug in the gravelly soils of the site area, to tools.

Large quantities of fire-cracked, crazed, and reddened rock were recovered from all three units. They were probably used for heating water for cooking or food-processing purposes. The source of these raw materials were probably the gravelly subsurface soils of the Remsen Hill Site. The depth of the artifacts recovered at the site may be most easily explained by the existence of lithic resource excavations in the site area.

Nearly 0.5 kg (1 lb) of shell fragments, primarily hardshell clam (*Mercenaria mercenaria*), but also soft-shell clam (*Mya arenaria*), scallop (*Pecten irradians*), oyster (*Crassostrea virginica*), and whelk (*Busycon sp.*) were recovered from the three test units. One small piece of parietal bone from a small animal was recovered from Level I of Unit 7N6E.

Two hearths containing fire-cracked and reddened rocks and a possible large diameter post mold were recorded. Historic materials were confined to the upper 20 to 30 cm (8-12 in), in a disturbed soil (plow) zone. These included glass, historic ceramics, coal, and brick.

The site was found as a result of subsurface testing during a Cultural Resources Assessment requested by the Town of Brookhaven. The site area had no surface manifestations of cultural material and would have been obliterated by development had these tests not been performed.

### Conclusions

The Remsen Hill Site was probably occupied during the summer months. The elevated site, surrounded on more than one side by steep slopes, may have provided some security from attack, and since it had a fine view of the eastern end of the harbor (the site of the harbor entrance in those days), it also could have offered occupants a warning of the arrival of friends or strangers from the sound.

Though not numerous, the identifiable lithic remains of Late Archaic affinity and the lack of pottery suggest a pre-Woodland Period occupation. The inhabitants must have sustained themselves, in part, on shellfishing - presumably by treading for hardshell clams, digging softshell clams, and collecting oysters, scallops, and whelk on a chance-encounter basis - in the nearby harbor. Though little evidence was recovered except for projectile points and a small fragment of bone, we assume they hunted both small and large game. We recovered no evidence of vegetal foods, although their bulk preservation would not be expected and soil flotation was not carried out. Water was probably collected from fresh-water seeps and springs exposed at the base of the hill at low tide, as at present, and carried laboriously up to the site. They may have been encouraged to expend the energy required to make the climb to the top of Remsen Hill to take advantage of the cooling breezes and relative freedom from insect pests during the hot, insect-ridden months of the summer. Also it may have provided access to certain raw materials (e.g., pebble and cobble cooking stones and raw materials for tool making) found in the near subsurface of the hill top. They may have extracted these by digging holes and pits. On the site they prepared and cooked food, some of which may have been boiled in skin or bark containers using heated rocks, and they manufactured chipped stone tools from pebble and cobble stock possibly collected on the site.



**Table 1**

<b>Unit 2N1E</b>								
Level	Flakes Class 1/2/3/SH	Cores	FC & RR	Tools	Shell	Ch	Bne	Hist
I	3/0/5/6 (% = 21, 0, 36, 43)	0	5	1	SC = T	0	0	0
II	2/2/12/0 (% = 13, 13, 75, 0)	0	10	2	SC = T	0	0	0
III	2/4/7/2 (% = 13, 26, 47, 13)	0	7	0	0	0	0	0
IV	3/3/23/12 (% = 7, 7, 56, 30)	0	8	1	0	0	0	0
V	2/1/6/3 (% = 17, 8, 50, 25)	0	7	0	0	0	0	0
VI	1/0/13/4 (% = 6, 0, 72, 22)	0	3	0	0	0	0	0
VII	1/0/2/2 (% = 20, 0, 40, 40)	0	2	0	0	0	0	0
<b>Unit 7N6E</b>								
Level	Flakes Class 1/2/3/SH	Cores	FC & RR	Tools	Shell	Ch	Bne	Hist
I	0/2/16/5 (% = 0, 9, 70, 22)	1	5	2	S = 1	0	1	Gl = 1
II	2/4/8/4 (% = 11, 22, 44, 22)	2	6	0	H = 9	0	0	Ce = 1
III	4/0/17/5 (% = 15, 0, 65, 19)	1	3	3	H = 2	0	0	Co = 1 Ce = 1
IV	0/1/1/4 (% = 0, 16, 16, 67)	1	0	0	S = <1	1	0	0
V	0/0/3/0 (% = 0, 0, 100, 0)	0	0	0	0	0	0	0

Unit 8N21E								
Level	Flakes Class 1/2/3/SH	Cores	FC & RR	Tools	Shell	Ch	Bne	Hist
I	0/2/16/5 (% = 0, 9, 70, 22)	0	11	0	H = 44 S = 8 I = 10 L = 4	0	0	Ce = 1 Br = 1
II	12/1/35/6 (% = 22, 2, 65, 11)	1	11	3	H = 293 O = 31 S = 17 L = 4 W = 2	0	0	Co = 6
III	9/5/31/0 (% = 20, 11, 69, 0)	0	46	0	H = 15 S = 10 L = 1 O = 1 I = 1	0	0	0
IV	7/5/8/0 (% = 35, 25, 40, 0)	0	0	1	S = 1	0	0	0
V	4/3/16/6 (% = 14, 10, 55, 21)	0	13	1	S = TR	0	0	0
VI	4/4/41/4 (% = 8, 8, 77, 8)	0	5	2	0	0	0	0
VII	4/3/11/0 (% = 22, 17, 61, 0)	0	1	0	0	0	0	0
VIII	0	0	0	0	0	0	0	0
IX	0/0/15/2 (% = 0, 0, 88, 11)	0	0	1	0	0	0	0
X	0/0/4/1 (% = 0, 0, 80, 20)	0	0	1	0	0	0	0

**Key**

Flakes or debitage:

- 1 = Primary
- 2 = Secondary
- 3 = Tertiary
- SH = Shatter

FC & RR: Fire-cracked and reddened rocks

Shell:

- S = Softshell clam
- H = Hardshell clam
- O = Oyster
- W = Whelk
- L = Scallop
- I = Indeterminate shell
- TR = Trace

Ch: Charcoal

Bne: Bone

Historic artifacts = Hist

Co = Coal

Ce = Ceramic

Br = Brick

Gl = Glass

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# The Trace Element Analysis of Hudson Valley Clays and Ceramics

Robert D. Kuhn, New York State Division for Historic Preservation

*In a series of recent works the author employed X-ray fluorescence analysis as a technique for identifying exotic ceramics in Woodland Period assemblages of eastern New York State. In this report a cluster analysis of six ceramic assemblages from the Hudson Valley is presented to illustrate the compositional relationship between the samples, and a discriminant analysis is presented that compares the ceramic samples to clay sources in the region. The results of the study further our understanding of trace element variability in the clays and ceramics of eastern New York.*

## Introduction

The compositional analysis of ceramics has been a growing area of archaeological interest ever since Shepard's (1954) seminal publication of *Ceramics, for the Archaeologist*. Since then, several techniques, including trace element analysis, have been used to examine ceramics and clays for the purpose of studying trade, procurement, and manufacturing practices as well as other topics. In Old World and Central American studies these techniques have been widely and productively applied to the study of ceramic technology and provenience and source analysis (cf. Fry 1980; Harbottle 1970; Mello 1982; Stern and Descoedres 1977). In New York State and the Northeast in general, however, the trace element analysis of ceramics is still in its infancy. Preliminary studies have been conducted in this area by Birgul et al. (1977) and Sideroff (1980), and Trigger et al. (1980, 1984) and Kuhn (1985, 1986, 1987) have used the approach in Iroquoian research. Yet, further work is needed to enhance our understanding of the trace element variability in the clays and ceramics of this region.

## Background

The clay resources of the Hudson Valley are glacial clays that are a product of the erosional redeposition of ground rock particles in glacial Lake Albany. These deep glacial lake clays lie on terraces along the river up to a height of 200 to 300 ft (6090 m) above sea level. Beginning at Haverstraw, about 30 mi (48 km) above the mouth of the river, these clays extend northward in a more or less continuous belt for over 160 mi (257 km). They constitute one of the most extensive deposits of clays in the United States (Brownell et al. 1951:148). In addition to their extensive distribution, clays in the Hudson Valley region are known for their high quality and exceptional firing properties (Brownell et al. 1951).

Although the physical characteristics of Hudson Valley clays are very uniform, these clays vary in their composition. The clay minerals in the Hudson Valley clays are of the montmorillonite and illite types. In addition to clay minerals, substantial concentrations of calcite, chlorite, and limonite, and lesser concentrations of other minerals, including quartz, dolomite, feldspar, garnet, hornblende, and muscovite, may be present (Brownell et al. 1951:148-150). Mineralogical differences translate into minor-element and trace element differences between clays as well. Relative proportions of minor and trace elements relate to the formation processes of specific clay deposits (Mello 1982:260; Shepard 1954:54). Since the majority of both minor and trace elements occur within the crystal structure of the component minerals, a major determinant of the chemical composition of clays is the parent rock from which they derive. Chemical changes associated with the geological processes of erosion, transportation, mixing, deposition, and weathering redistribute these elements creating a characteristic composition for the local deposit (Bishop 1980:48-49).

The prehistoric inhabitants of the region began exploiting these Hudson Valley clays for the manufacture of ceramic vessels and other items as early as 1000 B.C. The importance of ceramics in the material culture of the region increased during the Late Woodland Period when semi-permanent sedentary village life was adopted. Judging from the amount of ceramic refuse found on some sites of this later period, the manufacture and use of these items relate to frequent activities that were an integral part of the cultures in this region. Understanding the procurement patterns, manufacturing techniques, distribution, and use of ceramics in these societies will enhance the reconstruction of prehistoric lifeways in the Hudson Valley.

There has been little research focused on the prehistoric ceramics of the Hudson Valley region. Intriguing research questions could be proposed and addressed using archaeometric techniques. What were the clay procurement patterns of the prehistoric potters in the region? How do the prehistoric ceramics from these sites compare with existing clay resources in the valley? Do consistent and identifiable differences exist in the composition of ceramic samples from different areas, and can these differences be used as the basis for identifying exotics and reconstructing trade and interaction patterns? A formal study examining trade and interaction patterns in the region has already been completed (Kuhn 1985, 1986). The

present paper is designed to explore in greater depth the usefulness of trace element analysis for the study of prehistoric ceramics. The results will enhance the development of an appropriate methodology for applying archaeometric techniques to the study of prehistoric ceramics and will contribute to our understanding of prehistoric ceramic production behaviors in the region.

### Materials

To examine trace element variability between ceramic assemblages of a single region, six sites within the Hudson Valley drainage were selected for analysis (Figure 1). These sites were chosen because they are representative occupations from different areas of the valley. The sites are distributed from Fishkill Creek in the south to Fish Creek in the north, occupying areas that will be referred to as the Lower, Middle, and Upper Hudson Valleys for the purposes of this paper. The distance between the Winney's Island Site and the Sylvan Lake site is approximately 120 mi (193 km).

Data on over 150 pot sherds from the six sites were collected (Figure 1). The two major sites, Winney's Island and Kingston, represent large, permanent, Late Woodland Period settlements. The other sites are multicomponent, semi-permanent camps with ceramics from various Woodland occupations. Data were collected on three clay samples as well in order to compare the ceramic assemblages to local clay deposits. A complete survey and sample collection of clays from throughout the valley have not been conducted. The clay samples used in this study were fortuitously collected during archaeological reconnaissance work in the valley. Two of these samples were collected along the slope of the river terrace just south of the City of Albany. The third was collected back from the river on the south side of Fish Creek (Figure 1).

### Data Collection

X-ray fluorescence analysis was utilized to collect trace element data on the samples. The experimental setup is depicted in Figure 2. The technique employs a radioisotope housed in a lead shield which is used to bombard the sample with X-rays. The absorption of these primary X-rays causes the sample to emit fluorescent X-rays with energies that are characteristic of the elements present in the sample. A high-resolution X-ray detector counts the number of fluorescent X-rays corresponding to the energy levels of different elements and displays the results in a computer-enhanced spectrum (Figure 3). Numeric values (peak counts) were recorded for each element. These values represent proportional concentrations of the trace elements present in the sample. For a more complete review of X-ray fluorescence analysis, see Frankel (1969) and Hanson (1973). An in-depth discussion of the specific approach used in this study is presented in Kuhn (1985).

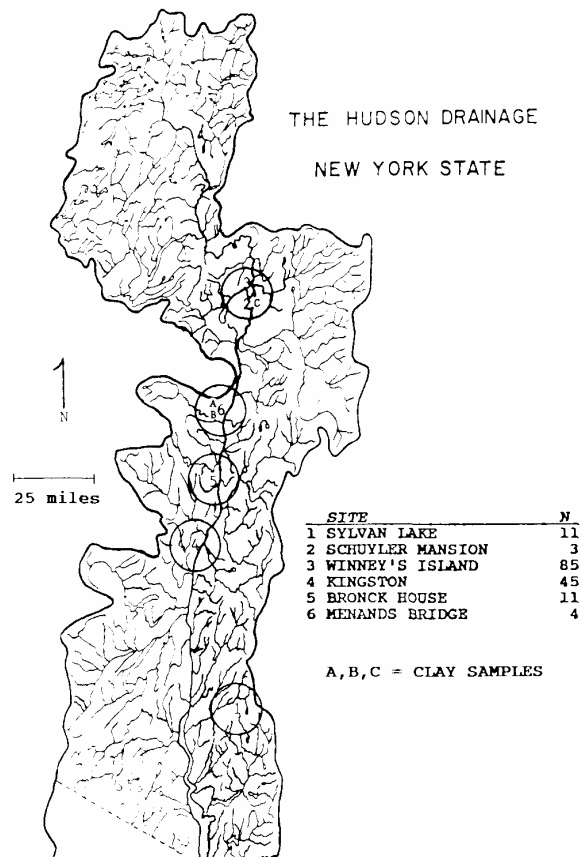
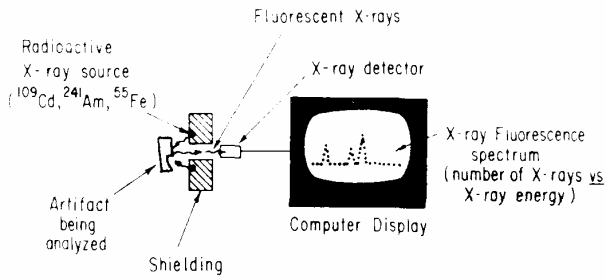


Figure 1. Sites and clay samples included in the analysis.

### Cluster Analysis

Cluster analysis was used to examine the relationship between the six ceramic assemblages in terms of their trace element composition. The technique forms clusters of cases (assemblages) based on a measure of association or similarity between the cases, or on a measure of distance separating the cases. Initially each assemblage represents a single cluster. At each step in the agglomerative process the two most similar clusters are joined to form a new cluster. This process is continued until all the cases have been joined to form a single cluster. The results are presented in the form of a tree diagram that illustrates the sequence of cluster formation. The diagram provides a visual "description" of the relative degree of similarity between the samples. The results may then be assessed to determine if any meaningful and interpretable patterning is evident. The use of clustering algorithms in the analysis of trace element data has been widely applied (Robinson 1985).

1 The hierarchical cluster analysis of cases used in this study (Dixon 1981, program BMDP2M, version October 1983) employed the sum of P distance measure and single linkage clustering algorithm. For sum of P the data values were standardized (to Z scores) before the computation of the distance matrix.



**Figure 2.** The X-ray fluorescence analyzer.

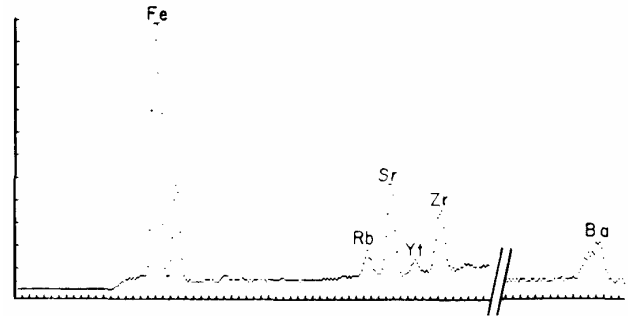
### Cluster Analysis Results

The results of the cluster analysis are presented in Table 1 and Figure 4. Table 1 presents the distance matrix calculated from the trace element data of each assemblage using the sum of P method. The matrix indicates the initial distances between cases. For example, the most similar assemblages are those of the Kingston and Bronck House Sites with a distance value of 3.20, followed by Kingston and Menands Bridge with a value of 3.76. The amalgamation process clusters the assemblages using the single linkage algorithm and the distance matrix. The resulting cluster tree is presented in Figure 4. The analysis clustered the Bronck House and Kingston Sites first and then added the Menands Bridge Site to this cluster. In the next step the Sylvan Lake assemblage was joined to this initial grouping. In the fourth step a separate cluster was formed by linking the Winney's Island and Schuyler Mansion Sites, and in the final step the two groups of sites were joined into a single cluster. The results of the cluster analysis link the sites into regionally meaningful groups based on similarities between the trace element composition of individual assemblages.

### Discriminant Analysis

Discriminant analysis was used to characterize the relationship between the regional groupings of sites and to compare the clay samples with the ceramic samples. On the basis of the cluster analysis results the six sites were separated into three regions. These included the Upper Hudson region (Winney's Island and Schuyler Mansion Sites [N=88]), the Middle Hudson region (Kingston, Bronck House and Menands Bridge Sites [N=60]), and the Lower Hudson region (Sylvan Lake Site [N=11]). Discriminant analysis was applied to calculate a set of classification functions that best discriminated between the three groups based on their trace element compositions.<sup>2</sup> Fundamentally, the approach identifies those trace element characteristics in the grouped samples that are distinctive

<sup>2</sup> The multivariate discriminant function analysis used in this study (Dixon 1981, program BMDP7M, version October 1983) employed stepwise forward and backward variable selection (tolerance .01, F-to-enter 4.0) with equal a priori probabilities. The jackknife technique was used in calculating the classification matrix.



**Figure 3.** Typical elemental spectrum showing peaks for the elements iron, rubidium, strontium, yttrium, zirconium and barium.

to each region, thereby creating a multivariate compositional typology. The discriminant functions can then be used to match the clay samples to the most similar ceramic group.

The results are presented in the form of a scatter plot of all cases. The scatter plot provides a visual assessment of the relationship between the three samples of ceramics based on their trace element composition. It presents in two dimensions that discriminant space which best separates the three ceramic samples and plots each case. The classification matrix calculated as part of the analysis provides an additional statistical measure of the relationship between the samples depicted in the scatter plot. The results also include a plot of the clay samples, illustrating their relationship to the regional samples of ceramics. The results may then be assessed to determine the adequacy of the typology's discrimination and evaluate the relationship between the clays and ceramics of the region. The use of discriminant analysis for examining trace element data has been advocated by Leese (1985) and others (Trigger et al. 1984).

### Discriminant Analysis Results

The results of the discriminant function analysis are presented in Figure 5. The scatter plot of cases shows the degree of discrimination between the three ceramic samples (U = Upper Hudson, M = Middle Hudson, L = Lower Hudson and X = the mean for each group). While there is a degree of overlap between the samples, the classification matrix calculated as part of the discriminant function analysis indicated that the trace element data can be used to correctly identify pottery specimens by region 77.8% of the time. The clay samples (A, B, C) are also plotted in Figure 5. Treated as unknowns, the discriminant function analysis classified samples A and B with the Middle Hudson Valley group of ceramics and sample C with the Upper Hudson Valley ceramics.

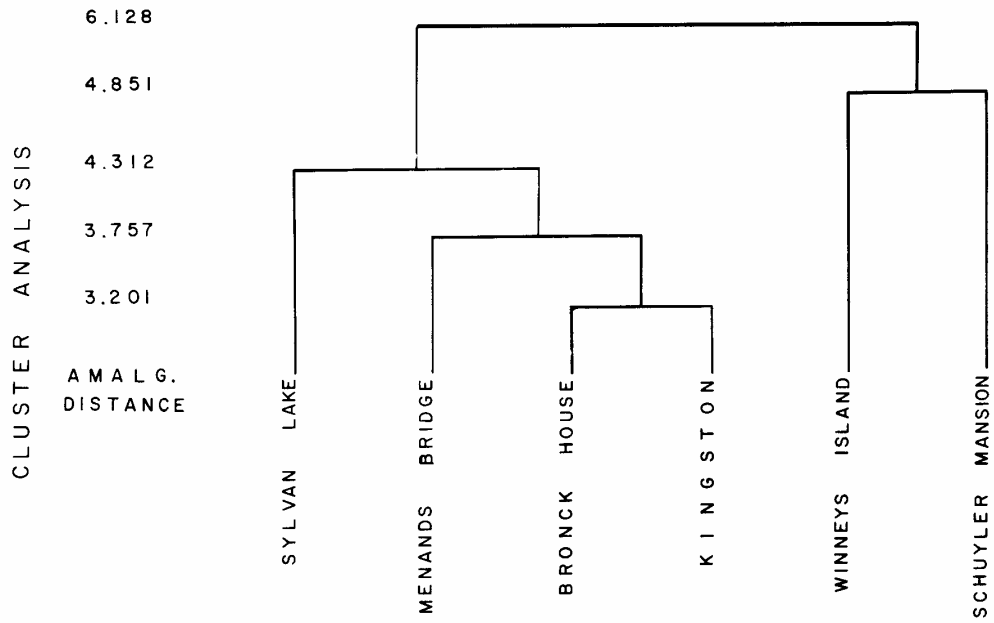
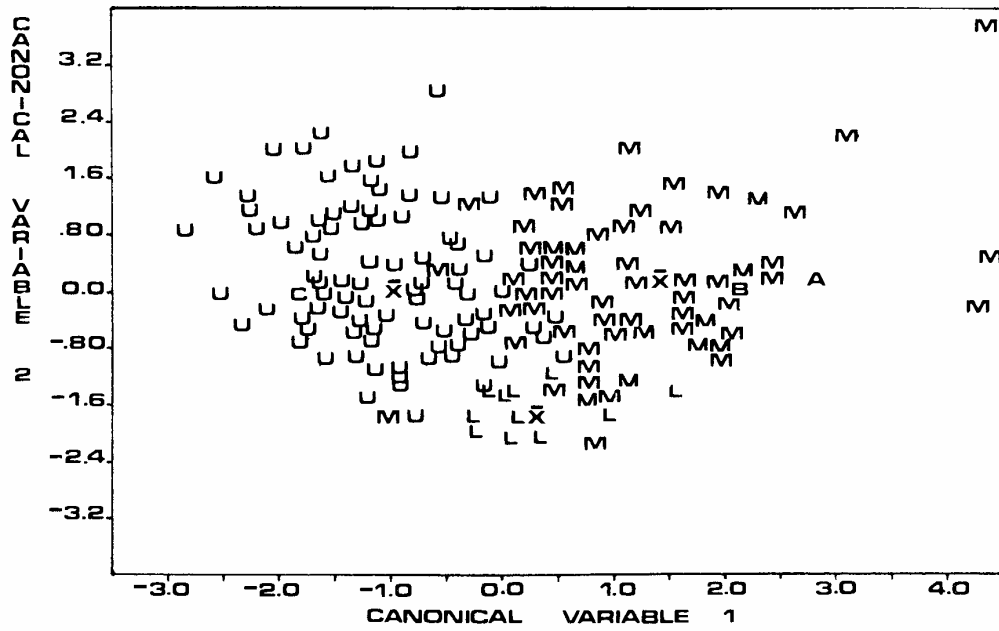


Figure 4. Cluster tree.



Key		
U	Upper Hudson	M
X	Group mean	L
		A, B, C
		Clay samples

Figure 5. Discriminant function analysis scatter plot of cases.

**Table 1. Distance matrix.**

	Sylvan Lake	Schuyler	Winney's Island	Kingston	Bronk House	Menands Bridge
Sylvan Lake	0.00					
Schuyler Mansion	6.13	0.00				
Winney's Island	9.24	4.85	0.00			
Kingston	6.91	8.57	9.14	0.00		
Bronk House	7.92	9.24	11.14	3.20	0.00	
Menands Bridge	4.31	6.33	8.26	3.76	4.37	0.00

### Interpretation

The result, of the cluster analysis suggest that meaningful variation exist,, between samples of ceramics within the Hudson Valley region. Specifically, the compositional variation is such that the ceramics from a site will be similar to ceramics from nearby sites and different from ceramics of more distant sites. Ceramics from the three Middle Hudson sites cluster together indicating that they are compositionally similar to one another. The two sites from the Upper Hudson region also cluster together. The cluster analysis also indicates that the single Lower Hudson region site is more similar to the Middle Hudson group than it is to the Upper Hudson group. The compositional relationship of the ceramics appears to relate directly to the location of the sites involved. If the composition of the clay resources varies from area to area in the valley, and prehistoric potters used clays from the local area of their site, then this is, precisely the type of patterning that should be expected.

The results of the discriminant function analysis indicate that raw clays in the valley are similar in composition to ceramics recovered from nearby sites. These results can be interpreted as suggesting that prehistoric potters in the region probably procured clay materials from sources close by the site. The results of the discriminant function analysis also indicate that compositional differences between the ceramic samples are of a magnitude sufficient to create a meaningful typology - one that can correctly classify ceramics by region 77.8% of the time based on the trace element composition of the material. These results, illustrated in the scatter plot, clarify in greater detail the relationship between the samples shown in the cluster analysis. The results indicate that there is sufficient differentiation between the ceramic assemblages from different areas of the valley (and between the clays from which they are made) to enable studies of provenience, sourcing, and trade and exchange of ceramics.

In summary, the results of this study suggest a number of important points, including:

1) Most ceramic items, such as pottery, were probably manufactured from clay sources local to the site, since there is a close match between the clays and ceramics of a single local region.

2) Trace element analysis can be used for provenience analysis, source analysis, and identification of exotic ceramics in the Hudson Valley, since the trace element compositions between clays/ceramics from different regions in the valley are relatively distinct.

3) Pottery samples can be used as adequate control samples in provenience studies when clay samples are lacking, since there is a close match between the two.

Similar findings for all three conclusions have been reported by researchers working in other areas of the world including the Valley of Mexico (Abascal et al. 1974), the Nile Valley (Perlman and Asaro 1969), and eastern Canada (Birgul et al. 1977; Trigger et al. 1980). However, this is the first study that has attempted to analyze, describe, and evaluate the trace element variability of New York State clays and ceramics for archaeological purposes. This type of analysis can be useful for examining procurement patterns, manufacturing processes, and the distribution, trade and exchange of ceramics, but it must be based upon a considerable amount of initial data collection and analysis regarding the composition of regional clays and ceramics. This study is presented as a preliminary step in this direction.

### Acknowledgments

I would like to thank Dr. Robert Funk and Beth Wellman of the New York State Museum and Dr. Susan Bender of Skidmore College for providing the ceramic samples used in this study. I would like to thank Dr. William Lanford of the State University of New York at Albany for his assistance in conducting the X-ray fluorescence analysis. I would also like to thank Charles Florance and Robert Ewing of the New York State Office of Parks, Recreation and Historic Preservation for reading and commenting on earlier versions of this paper.



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# Minutes of the 73rd Annual Meeting New York State Archaeological Association

Howard Johnson Motor Inn, Norwich, New York 13815  
April 14, 15, 16, 1989

## Executive Committee Meeting

The meeting of the Executive Committee of the New York State Archaeological Association was held on Friday, April 14, 1989 at the Howard Johnson Motor Inn in Norwich, New York. President pro tem William F. Ehlers called the meeting to order at 8:14 p.m. After a brief welcoming address, the Secretary was directed to call the roll. The following voting members, including NYSAA officers, chapter presidents, and secretaries or their alternates were present:

President: William F. Ehlers (*pro tem*)  
Vice-President: Vacant  
Secretary: John H. McCashion  
Treasurer: Carolyn O. Weatherwax

### *Auringer-Seelye Chapter:*

President: Virginia Stiles (Alternate)  
Secretary: Absent

### *William M. Beauchamp Chapter:*

President: Al LaFrance  
Secretary: Ty Tanner (Alternate)

### *Chenango Chapter-:*

President: Gordon Ginther  
Secretary: Lucy Mae Sanders

### *Frederick M. Houghton Chapter:*

President: Eleazer Hunt  
Secretary: Absent

### *Incorporated Long Island Chapter:*

President: Walter Smith  
Secretary: David Elliston (Alternate)

### *Incorporated Orange County Chapter:*

President: Harold R. Decker  
Secretary: William F. Ehlers

### *Lewis Henry Morgan Chapter:*

President: Robert Gorall  
Secretary: Annette Nohe

### *Metropolitan Chapter:*

President: Absent  
Secretary: Absent

### *Mid-Hudson Chapter:*

President: Al Wanzer  
Secretary: Absent

### *Louis A. Brennan Lower Hudson Chapter:*

President: Absent  
Secretary: Absent

### *Triple Cities Chapter-:*

President: Richard Jackson  
Secretary: Dolores Elliott

### *Upper Susquehanna Chapter Incorporated:*

President: Richard Wakeman  
Secretary: Ruth Wakeman

### *Van Epps-Hartley Chapter:*

President: Don Rumrill (Alternate)  
Secretary: Fred Stevens (Alternate)

## Committee Chairpersons

1 Publications:	Father John R. Lee
2. Editor, NYSAA:	Charles F. Hayes III
3. ESAF Representative:	Dr. Roger Moeller
4. Finance:	Dr. Roger Moeller
5. <i>Bulletin</i> Distribution:	Dr. Roger Moeller
6. Chapter and Membership:	William F. Ehlers
7. Awards and Fellowships:	Dr. Peter P. Pratt
8. Legislative:	Dr. Paul R. Huey
9. Constitution:	Richard Wakeman
10. NYSAA/NYAC Liaison:	Dolores Elliott

Roll call having been completed and the required quorum (11) being present, the next order of business required the reading of the previous Executive Committee minutes from the 1988 NYSAA Annual Meeting held at Albany, New York. Since these had been previously printed and mailed to the Executive Committee on June 23, 1988, Dolores Elliott made the motion to suspend the reading of the minutes and accept them as printed. Richard Jackson seconded the motion which went to the floor and was accepted unanimously. The Executive Committee then proceeded to the next order of business.

### **Report of the Officers**

#### **President**

Due to the sudden resignation of President Richard McCracken, William F. Ehlers, Vice President, ascended to the office of President *pro tem*, and the President's report was therefore waived.

#### **Vice President**

The office of Vice President thus vacated, President *pro tem* Ehlers appointed Monte Bennett of the Chenango Chapter to fill the unexpired term. The Vice President's report was thus waived.

#### **Secretary**

The 1988-1989 year brought only one change in the chapter secretariat: the election of Marilyn Hahn as corresponding secretary of the Frederick M. Houghton Chapter. We cordially welcome her among us. We thank Ann Loden for her dedicated and outstanding service in that position.

In the chapter packets this year are the agenda for this evenings meeting, officers' reports, chapter annual reports, 1988 NYSAA membership totals, a written plea from the Tennessee Archaeological Society, which I hope you will read and answer, and four copies of the green informational handbook to be distributed to each principal officer.

Preservation headed the agenda this year. The Civil War battlefield at Manassas, Virginia, came under threat of becoming another shopping center, and since we had such good fortune with the Shipwreck Bill, our energy was directed toward saving Manassas by encouraging the passage of H.R. 4526. Details were included in the first large mailing dispatched on June 23, 1988. Also included were four copies of the previous Executive Committee minutes taken at Albany, four copies of the white Informational Handbook, and the newsletter to all secretaries informing them of some

member ship form distribution changes. Each officer and chapter packet also contained details on who was digging and at what location and a reminder to support Robert Gorall's efforts to have the U.S. Postal Service issue the Treaty Stamp. Much of the summer was spent with routine correspondence and active campaigning with the Civil War Round Table, Inc., and the Sons of Union Veterans in support of the Manassas Bill. Also active in this campaign were the Metropolitan Chapter and the Lewis Henry Morgan Chapter, and we thank them.

On September 15, 1988, the second large mailing was sent to the officers and secretaries for review and distribution. This mailing contained the update report on the Manassas Bill, general instructions, the "first notice" of the 73rd Annual Meeting, the notice of the ESAF meeting in Toronto, five pages of Xeroxed newspaper articles and another reminder on the Treaty Stamp.

The third large mailing left this office on December 8, 1988, and was directed as usual to the principal officers and the chapter secretaries. Within were the "First Call" for papers for the 73rd Annual Meeting, announcement of the First Archaeological Congress to be held in Baltimore, Maryland, notice of the MAAC Conference to be held in Delaware, the notice of the 50th Anniversary of the Massachusetts Archaeological Society, the green membership cards in bulk, and ten pages of Xeroxed newspaper articles of archaeological interest. Included was the really good news that the Manassas Bill had been passed by Congress and signed by President Reagan.

The fourth and final large mailing departed February 17, 1989. It contained the "Final Call" for papers, the first notification of land acquisition problems at both Flint Mine Hill and the Vosburgh site in Guilderland, information for joining the Archaeological Society of New Jersey, notice of the classes sponsored by the Flowerdew Hundred Foundation, notice of the Smoking Pipe Conference to be held in June at Rochester, and, of course, the Canandaigua Treaty Stamp. Also, included was an open letter initiated by Monte Bennett and Henry Hatton to all NYSAA chapters and members, and, finally, six Xeroxed pages of newspaper articles.

Expenses for the year were \$300.00. The report was accepted as given.

#### **Treasurer**

Carolyn Weatherwax reported that publication sales had been down during the last fiscal year and that the cost of the previous two Bulletins were about the same as the most recent. Her report was to appear in the Executive Committee minutes. Richard Jackson made the motion that the Treasurer's Report be accepted. Virginia Stiles seconded the motion which went to the floor and was accepted as printed.

**Committee Reports**

**Publications**

Father John R. Lee, chairman, reported that he had appointed Brian Nagel to fill two vacancies, one of which was the *Researches and Transactions* Editor's position. Briefly discussed were the upcoming 75th Diamond Jubilee, a possible publication for it, and the special attention to the issuance of our 100th *Bulletin*. Father Lee then deferred to Charles F. Hayes III.

**NYSAA Editor's Report**

Charles Hayes reported that during 1988-1989 two issues (Nos. 96 and 97) of *The Bulletin* were published with a combined total of 79 pages. Nine papers on New York State related archaeology were included. The major change in format was continued as instituted in No. 95. Monroe Reprographics of Rochester, New York, continued to print *The Bulletin* and ship bulk copies to Roger Moeller for distribution.

Assistant Editors Brian Nagel and Dr. Connie Cox Bodner once again continued to be of great value in the preparation of the manuscripts. Patricia Miller, Graphic Artist, was responsible for the composition and layout of both issues. The Editor is very grateful to these individuals for their continuing assistance in providing a publication with contemporary design, editorial accuracy, and scientific integrity.

Bulletins Nos. 98 and 99 are currently being edited. It is hoped that both these issues will be out during 1989. There are enough manuscripts for Nos. 100 and 101 if the papers from the Iroquois Symposium to be held at the Annual Meeting in Norwich in April are submitted on time. Concerning expenses, Charles stated to use the NYSAA Treasurer's Report. He was pleased to report the use of a scanner and a laser printer. The report was accepted as given.

**Finance**

Dr. Roger Moeller, chairman, stated that the finances were not as good as they should be, but after checking with the NYSAA Treasurer were found to be in order. The report was accepted as given.

**Report of the Treasurer, April 6, 1989**

<u>Adirondack Trust Co.</u>		<u>4/06/89</u>		
<u>4/06/88</u>		<u>4/06/89</u>		
MMDA #7922385	\$9,923.26	MMDA Int. (4/29/88-3/31/89)	\$293.06	\$5,216.32
NOW Acc't. #2945406	2,252.64	5.50-5.75% \$5,000 transferred on		
4/14/88 to 3 yr. CD		#37220016112 @ 7.70%		5,283.42
		NOW Acc't Int. (4/29/88-3/31/89)	\$121.94	<u>1,183.40</u>
		TOTAL ASSETS		\$11,683.14
<u>Cash Receipts 1988-1989</u>		<u>Disbursements 1988-1989</u>		
Dues	\$5,556.00	1988 ESAF dues (676 memberships)	\$	136.00
Publication sales	204.45	<i>The Bulletin</i> 96		2,646.89
Donation (Van-Epps)	500.00	<i>The Bulletin</i> 97		3,460.65
Refund Solutions Plus	4.50	Storage negative flats		45.00
Int. NOW Acc't #2945406	<u>121.94</u>	Secretarial expenses ('88-'90)		650.00
TOTAL	\$6,386.89	Archeological Services		502.59
		Treasurer's expenses		<u>15.00</u>
		TOTAL		\$7,456.13
TOTAL RECEIPTS	\$6,386.89	<i>The Bulletin</i> #96	#96	#97
Bal. Ck. Acc't (4/6/88)	2,252.64	Typesetting	\$250.50	\$420.00
TOTAL	<u>8,639.53</u>	Layout	310.00	560.00
Disbursements '88-'89	<u>7,456.13</u>	Copy editing	45.00	187.50
Bal. NOW Acc't (4/6/89)	\$1,183.40	Printing	1,747.04	2,023.00
		Mail/postage	<u>294.35</u>	<u>270.15</u>
			\$2,646.89	\$3,460.65

### **Bulletin Distribution**

Dr. Moeller stated that *The Bulletin* (No. 97) had been mailed and asked if any had received theirs. The reply was in the affirmative. He personally thanked all those chapter secretaries who sent him prompt changes of address thus helping to keep down costs. The report was accepted as given.

### **ESAF Representative**

Dr. Moeller gave the following report. At the annual Eastern States Archaeological Federation (ESAF) meeting in Toronto in November, 1988, the Executive Board passed a motion permitting the current and past member state (provincial or regional) societies of the Federation to collect the \$20.00 annual dues from individuals for 1989 ESAF membership and to keep 20% of the amount collected.

This motion came in response to the perennial question: What does ESAF do for the member organizations of the Federation? Although each member organization is entitled to representation on the Executive Board, nearly half of the representatives were not in attendance at this meeting or at any other in the past several years. Helping is difficult without knowing the problem. Since all of the organizations need money and ESAF needs individual members, everyone will benefit. The last major benefit ESAF offered to its member organizations was free advertising in the original *Booklet of Archaeological Publications*. The Board agreed that an offering of ESAF membership coming directly from a member society at chapter, state, or provincial meetings or through its newsletter would recruit individuals who would otherwise not be contacted or who would not even consider membership to be a benefit. Each society can word its offer in its own way.

The primary benefit for prospective individual subscribers or members is Volume 17 of *Archaeology of Eastern North America (AENA)* which will be mailed to them in November, 1989. *The Bulletin*, containing abstracts and reports from the 1988 ESAF meeting in Toronto, will also be distributed at the same time. Between now and then each ESAF member will receive a call for papers for the 1989 meeting being held in East Windsor, Connecticut, November 2-5, 1989; the preliminary program for the meeting; hotel registration forms; and the opportunity to register for the meeting at a substantial discount.

Since joining ESAF through one of the member organizations provides income for your group, they are also supporting their own programs, publication fund, or whatever activity. For further information and suggestions for implementing this for your "chapter," contact Roger W. Moeller, Archaeological Services, P.O. Box 386, Bethlehem, CT 06751. The Executive Board of the Eastern States Archaeological Federation passed a motion offering substantial discounts to member societies on wholesale orders of back issues of *Archaeology of Eastern North America (AENA)*. To reach out to as broad an audience as possible, the

ESAF is making an attractive offer to its current and past member societies: back issues of *AENA* at nearly half price. Minimum order is five copies of single titles or ten copies of assorted titles. Prepayment is required, but there is no charge for postage. Orders are shipped the day after they are received. Volumes 1, 4, 7 and 12 are out-of-print. Thirty copies remain of Volume 9.

The 1988 ESAF Meeting in Toronto was attended by nearly 200. The three-day program included topics on the Paleo-Indian stage through Historic Period given by students, professional, and non-professional archaeologists. These very interesting presentations sparked conversations at the breaks and the parties. The social highlight of the meeting was the annual Friday night Canadian-American beer parry. The banquet speaker, Dr. James Tuck, told of his excavations at a Basque whaling site in Red Bay, Labrador.

The 1989 ESAF meeting will be hosted by the Archaeological Society of Connecticut and will be held at the Ramada Inn in East Windsor, Connecticut, on November 2-5. Preliminary programs will be ready in early August for mailing to all NYSAA members. The report was accepted as given.

### **Chapter and Memberships**

William F. Ehlers, chairman, reported the following membership totals: Auringer-Seelye, 17; Chenango, 71; Frederick M. Houghton, 58; Incorporated Long Island, 60; Incorporated Orange County, 100; Lewis Henry Morgan, 83; Metropolitan, 57; Mid-Hudson, 14; Triple Cities, 30; Upper Susquehanna Incorporated, 22; Van Epps-Hartley, 49; William M. Beauchamp, 42; Louis A. Brennan Lower Hudson, 13; Members-at-Large, 36. Grand totals were 652 memberships and 818 members. Secretaries were urged to type the membership forms. The report was accepted as given.

### **Legislative**

Paul R. Huey, Van Epps-Hartley Chapter  
Federal

Congress passed and President Reagan signed into law the Abandoned Shipwrecks Act in April 1988. This law defines shipwrecks as archeological sites and removes them from the legal jurisdiction of admiralty courts. New York already has state laws protecting underwater sites, and in New York State the question of admiralty court jurisdiction fortunately had never become a major issue. Non-historic shipwrecks are still available to salvors under Admiralty Law. The new law also guarantees for sport divers the recreational exploration of shipwrecks and encourages states to create underwater parks and historic sites.

In February, new legislation was introduced in Congress

to strengthen and encourage greater use of tax credits for the rehabilitation and preservation of historic buildings and sites. This legislation is needed in order to overcome the negative impact of the 1986 tax reform law. The proposed legislation is entitled The Community Revitalization Tax Act of 1989.

According to press reports, the plan that would have kept the Museum of the American Indian in New York City has been abandoned, and an agreement has been reached with the Smithsonian Institution to move most of the collection to a new museum to be built by the Smithsonian in Washington on the Mall.

The following items are from an update published by Foresight Science & Technology, Incorporated, 2000 P Street, NW, Suite 305, Washington, D.C. 20036, Phone (202) 833 2322. The present Administration has requested zero funds for historic preservation programs in the states under the Historic Preservation Fund. Congress has requested \$53.5 million, of which \$45 million is for state grant programs.

Bill H.R. 1124, the Indian Remains Reburial Act, was introduced in February and would require the Smithsonian Institution to transfer to Indian tribes those Indian skeletal remains in the Smithsonian collection dating A.D. 1500 or later in order to provide for appropriate interment. The bill was referred to a House subcommittee on libraries and memorials, and no hearings have been scheduled.

Bill H.R. 1381, the Native American Burial Sites Preservation Act, was introduced on March 14 by Rep. Charles Bennett of Florida. This act would prohibit the excavation of Native American Indian burial sites and the removal of their contents. For further information on these or other bills, call the congressional bill status office, (202) 225-1772.

## State

The Office of Parks, Recreation and Historic Preservation continues to administer preservation grants for municipally owned or not-for-profit properties. Archeological projects would be eligible for funding, but no proposals have been submitted. Call Michael Lynch at (518) 474-7750 or 3176. Since it is not clear how much longer the funding for this matching grant program will continue, it is important to submit applications soon. In addition, the Department of Environmental Conservation manages funding that provides 100% of the cost for their acquisition of archeological and historic sites which are eligible for or listed on the State or National Registers. The Department of Environmental Conservation has not yet purchased any specific archeological sites.

On September 1, Governor Cuomo signed the Documentary Heritage Bill into law. This law establishes a new Documentary Heritage Program to provide support for archives, libraries, historical societies, museums, and other institutions that collect, hold, or make available historical records. The legislature provided \$250,000 in the FY88-89 Local

Assistance Budget to support the program this year.

Parks, Recreation and Historic Preservation is proposing to amend Section 12(a) of the Indian Law, which protects Indian burial grounds. The amendment would explicitly require Parks to promulgate rules and regulations to implement the law. It would authorize Parks to acquire Indian burial grounds as historic sites, and it would establish a penalty of not more than \$10,000 for each violation of the law, with an additional penalty not to exceed \$500 for each day the violation continues.

Parks has also drafted proposed rules and regulations to implement Section 12(a) of the Indian Law. Under these proposed rules and regulations, a site could be designated an Indian burial ground provided it is not on an Indian reservation, if it is listed on or eligible for the State or National Registers, if human skeletal remains have been discovered there, if mounds or artifacts which are associated with Indian burials have been discovered there, or if there is reliable historical information from within the Indian community or from other sources that it is more likely than not that Indian burials took place there. The Commissioner of Parks, at his or her discretion, could require additional evidence to substantiate any claim that burials exist, especially if this would not require further disturbance of the site. Boundaries of a site would be drawn based only on the available evidence, and disturbance of a site only to establish its limits would not be required. Any person would be able to request designation of an Indian burial ground, but the Commissioner of Parks could require the sponsor to provide whatever evidence the Commissioner considers necessary. The owner of the property would immediately be notified of the proposed designation by the Commissioner of Parks, after which the site could not be destroyed or altered without a permit from the Commissioner. If a property owner can prove that designation would impose an undue economic hardship, a delay period of 30 days before disturbance of the site could occur would be imposed during which representatives of the Indians, the Commissioner of Parks, and other groups would consult concerning final disposition of any remains or artifacts which might be excavated. The final decision is reserved to the representatives of the relevant Indian group. The property owner would bear all costs associated with reburial.

After the report was given, a discussion was initiated by President LaFrance of the William M. Beauchamp Chapter concerning who would have the right to dig Indian burials under the proposed changes or implementations to Section 12 of the Indian Law. The discussion could not be resolved at this point in time. The report was accepted as given.

## Constitution

Richard Wakeman, chairman, reported that he had met with former President McCracken to update the Constitution.

The Secretary stated that revision of the Constitution might not now be a matter of priority, but it should continue. It would become a great matter of priority subsequently. The report was accepted as given.

### **NYSAA/NYAC Liaison**

At 9:00 p.m., Dolores Elliott reported that the paper authored by Ron LaFrance would be read at the Saturday morning symposium. She reported that Peter Jemison, Iroquois Representative, would speak to us later in the evening. The report was accepted as given.

### **Old Business**

Old Business began at 9:11 p.m. with a call for an update on the Louis A. Brennan *Festschrift*. As there was no one present to report, the item was passed over to the General Business Meeting on Saturday.

The next item under "old business" was the progress report on the 75th Diamond Jubilee to be held at Rochester in 1991. A motto was suggested, "Still Diggin' at 75," The Secretary reported that he had contacted the N.M. Meyer Company in New York City, which would fashion the decorative or lapel pins. It was suggested that the projectile points in the NYSAA logo be moved and 75 inserted in the center. The Secretary suggested that one of our design artists make up the logo and send it to him as soon as possible to determine the cost and/or time constraints imposed by the company. The focal point of the discussion was the desire by most of the membership to have the entire session in one place. That would be discussed at a meeting of the 75th Diamond Jubilee Committee after the papers on Saturday. Editor Hayes stated that April 12, 13 and 14, 1991, would be the dates. The Secretary stated that he would start notifying adjacent associations as soon as possible. With that the discussion concluded.

The third item under "old business" was the establishment of a newsletter. It was decided to defer this item to a much later date due to the press on our finances concerning the 75th. There were no volunteers.

The fourth and last item under "old business" was an update report on the NYSAA library. As there was no one present to give the report, the item was passed to the General Business Meeting. Old Business concluded at 9:27 p.m.

### **New Business**

"New business" began at 9:28 p.m. The first item was a discussion of the retirement of Dr. Fred Kinsey from the North Museum at Franklin and Marshall College. Dr. Moeller stated that the reason for the resignation was the desire of the President of the College and the Board of Directors to remove much of the archaeological displays from

the North Museum replacing them with art. Dr. Kinsey took his retirement begrudgingly. Roger Moeller started a letter writing campaign which eventually influenced the President of the College to recant, and Dr. Kinsey returned. Thus, stated Dr. Moeller, there would be no need for a resolution at this time.

The second item under "new business" evoked more discussion. The Secretary reported that he had received eight letters from members decrying the application of the term "amateur" to members of NYSAA. The Secretary referred to the article in the *National Geographic* and the television commercial which stated, "Don't trust your memories to an amateur." President Lee Hunt stated that the term "amateur" was misused by the communications media. Dr. John Reid thought that we all ought to be called archaeologists. The Secretary put the motion to the floor that in the future we refer to ourselves, within NYSAA, verbally and in writing as "avocationalists." Vicky Jane seconded the motion which went to the floor and was passed with one abstention, President Lee Hunt of the Frederick M. Houghton Chapter.

The third item under "new business" involved a potentially serious situation. The first notice of this situation was brought to the attention of the Secretary when "chipper" Jeff Kalin called from Connecticut stating that the famous Flint Mine Hill at Cossackie, New York, was about to lose seventeen acres to gravel removal. The following day Dr. Robert Funk called to express his interest, Louise Basa was notified immediately, and she took up the cause. In the interim, Dr. Walter Smith, President of the Incorporated Long Island Chapter, was notified. It was hoped that the Long Island Chapter might come up with the \$26,000 necessary to purchase the seventeen acres which appeared to be in the middle of the forty-five acres they owned. Dr. Smith stated that they did not have the resources to finance the venture, and Louise Basa was called upon to attempt to convince one of the State agencies to purchase the property. After a tremendous amount of research, Louise stated that in order to hold the property until one of the New York State agencies could come to a decision, a \$500.00 binder was necessary. The Secretary made the motion which was seconded by Richard Wakeman. The "ayes" from the floor were unanimous and the motion to put \$500.00 from the NYSAA treasury as a binder was passed. The Treasurer complied.

The fourth item under "new business" centered upon hosting the 74th NYSAA Annual Meeting. President *pro tem* William F. Ehlers stated that the Incorporated Orange County Chapter, NYSAA, would like to request that we hold the 74th Annual Meeting at Middletown in 1990. As there were no other contenders, it was so resolved.

The fifth item under "new business" was the proposal by William F. Ehlers of Resolution 89-1, *whereas* the Chenango Chapter of the New York State Archaeological Association is hosting the 73rd Annual Meeting, and, *whereas* Dr. Richard Hosbach, Richard Bennett, Monte Bennett, Peggy Elliott,

Gary Elliott, Lucy Mae Sanders, Eugene Travers, and President Gordon Ginther have worked long and diligent hours to provide our membership with these amenities and programs, be it *resolved*, that the Association express its profound appreciation to the Chenango Chapter and to those named above, we say "Well done." Dolores Elliott entertained the motion, seconded by Virginia Stiles, and there was a round of applause.

The sixth item under "new business" concerned the proposed destruction of the Vosburg Site in Guilderland. This is the "type station" for the Vosburg projectile point illustrated and described in William A. Ritchie's *Typology*. Mr. Drahos, the owner, has the property up for sale. Mark Hesler of the Guilderland Historical Society notified the Secretary. The Secretary notified Dr. Robert Funk and Louise Basa. Mr. Hesler [P. O. Box 708, Altamont, New York 12009; (518) 8617248 (H); (518) 486-8957 (W)] was designated coordinator of the project and further information will appear in newsletters. With that, "new business" was concluded.

### **Good and Welfare**

The first item under "good and welfare" was brought up by Robert Gorall, President of the Lewis Henry Morgan Chapter. President Gorall discussed the Montezuma Wetlands Project. A partnership of federal state and private concerns will be acquiring a major wetlands complex north of the Montezuma National Wildlife Refuge. This acquisition has been identified by the Division of Fish and Wildlife as its highest-priority freshwater-wetland purchase. A portion of the 1986 Environmental Quality Bond Act wetland funds has already been committed, and additional monies will be coming from other sources. The Secretary received numerous handouts which he stated would be going out with the newsletters. Our emphasis would be the preservation of any archaeological sites within the preserve.

Louise Basa then introduced our Native American guests: Peter Jemison, Site Manager of Ganondagan; Geraldine Green, a Seneca from the Cattaraugus Reservation; Arlene and Beeman Logan of the Tonawanda Reservation; and Cookie Huff of the Cattaraugus Reservation. Peter Jemison began with a presentation outlining the concerns and objectives of the Native Americans regarding archaeology. When the discussion got down to the fine point of land erosion, Virginia Stiles brought up some points of her own. Then the discussion centered around the "Bering Straits" theory about which Mr. Jemison disagreed. He stated that you could not always tell about a people from a study of their artifacts. Dr. John Reid then entered the discussion asking questions on policy and procedures. He stated that his objective was to recover and preserve artifacts and make them available for study. Archaeologists are here to help carry on the history of Native Americans, Dr. Reid stated, while discussing this matter with Geraldine Green.

Peter Jemison then stated that his main objective was the enactment of laws to effectively protect the Indian

burial sites. He stated that Native Americans regard these human remains and sites as sacred and that he had come here this evening in a spirit of dialogue hoping that we could all come to some understanding. Gordon DeAngelo echoed the sentiment of the entire Association when he stated that we were fully aware that the digging of Indian burials was "morally wrong." Peter Jemison stated that we have talked too long *about* each other, and he was pleased to have been able to express the hopes and concerns of the Native Americans this evening. The dialogue ended with a fine round of applause.

Finally, Dr. Peter P. Pratt put forth a motion to President *pro tem* Ehlers that a letter of appreciation be sent to ex-President Richard McCracken for the good job that he accomplished during his short term. The Secretary seconded the motion which went to the floor and was approved unanimously.

Finally, at 11:19 p.m., Richard Jackson made the motion that we adjourn. It was seconded by Dolores Elliott, and the 73rd Executive Committee Meeting of the New York State Archaeological Association concluded.

### **General Business Meeting**

The General Business Meeting of the New York State Archaeological Association was called to order by President *pro tem* William F. Ehlers at 4:13 p.m., April 15, 1989. The Secretary was asked if a quorum existed, and the Secretary replied in the affirmative. The Secretary was directed to read the previous minutes of the 72nd NYSAA Meeting held in Albany. Francis McCashion made the motion to waive the reading of the previous minutes. This was seconded by Richard Jackson and then in turn passed by the membership present.

The President and Secretary gave brief summaries of their reports given at the Executive Committee meeting on Friday evening, and Treasurer Weatherwax gave the full Treasurer's Report. Ty Tanner made the motion to accept the Treasurer's Report as printed and given. It was seconded by A1 LaFrance, went to the floor, and was accepted by the membership.

Next on the agenda came the reading of the Committee Reports. Father John R. Lee gave the Publications Report, and Charles F. Hayes III read his Editor's Report and stated that he had enough papers for *Bulletin* Nos. 100 and 101 and that Nos. 98 and 99 were being edited at present. Roger Moeller gave the ESAF, Finance and *Bulletin* Distribution Report and ended them by thanking the chapter secretaries for promptly sending in the change of address thus saving the Association money. He concluded by stating that 121 persons had pre-registered and that there were 209 in attendance. Two thousand advance notices had been sent, and this included registration forms. William F. Ehlers reported that there were 652 memberships



and 818 members in the 1988 totals. Peter Pratt announced that the awards committee had met, and the names would be announced at the banquet.

Next, the Secretary read the Legislative Report submitted by Paul Huey. This was followed by Richard Wakeman's Constitutional Committee Report. At the earlier Executive Committee meeting it was decided that we could deprioritize a constitutional revision. However, later in the day adverse circumstances developed whereby the NYSAA Constitution might come under attack at this meeting, so it was decided to make constitutional revision a top priority, and the membership was exhorted to conclude business as soon as possible. Dolores Elliott then gave a quick NYSAA/NYAC Liaison Report. This concluded the Committee Reports.

Under "Old Business" Herb Kraft was still not present to give the progress report on the Louis A. Brennan *Festschrift*, so the report was deferred. Also deferred was the next item under "Old Business" which was the progress report of the 75th Diamond Jubilee Committee. They would meet after the banquet. The third item under "Old Business" concerned the establishment of a newsletter to reach the entire membership. All concluded that it was not feasible at this time due to the anticipated expenses which would be incurred by the *Festschrift* and the 75th Diamond Jubilee. The fourth and final item under "Old Business" was the NYSAA Library Update Report by Geary Zern. Since he was not present, the report was also deferred. Thus ended "Old Business."

Under "New Business," Roger Moeller discussed Fred Kinsey's situation at Franklin and Marshall College and stated that no resolution was needed as the matter had been resolved, temporarily, at least. The next item under "New Business" required a vote from the membership present. It concerned a motion made by the Secretary "that from now on, in reference to ourselves, verbally and in writing, we, the members of NYSAA will be referred to as avocational and the term 'amateur' will be deleted from the archaeological vocabulary and literature." Vicky Jayne seconded the motion which went to the floor and was passed with one abstention.

Under the third item of "New Business" Louise Basa explained the immediate threat to seventeen acres in the middle of the Long Island Chapter's property on Flint Mine Hill. She explained that this acreage was up for sale and houses were proposed to be erected there. She initiated a motion after discussion that NYSAA invest \$500.00 as a binder. Richard Wakeman seconded the motion which was unanimously approved. Ray Decker, President of the Orange County Chapter, stated that we needed a resolution according to regulations set by the State of New York for fund acquisition. Resolution 892 was put forth that "I, John H. McCashion, duly elected and qualified secretary of the New York State Archaeological Association, incorporated in Rochester, New York, an organization subject to the Not-For-Profit Corporation Law of New York State and qualified for tax exempt status under the federal internal revenue code, do hereby certify that the following resolution was adopted at the

Annual General Business Meeting, a regular meeting of the Executive Committee and the General membership, held on April 15, 1989, and is incorporated in the original minutes of said meeting, and that said resolution has not been altered or revoked and is in full force and effect; *resolved*, therefore, that William F. Ehlers, as President, is hereby authorized and directed to file an application for funds from the New York State Office of Parks, Recreation and Historic Preservation in accordance with the provisions of Title 9 of the Environmental Quality Bond Act of 1986, in an amount not to exceed \$26,000, and upon approval of said request to enter into and execute a project agreement with the State of New York for such financial assistance to this organization and a covenant to the deed of the assisted property for a term of not more than 20 years." The motion was seconded by William F. Ehlers. It went to the floor where it was unanimously approved.

President Ehlers then read a letter from the Incorporated Orange County Chapter offering to host the 74th NYSAA Annual Meeting in 1990. As there were no other contenders, it was so approved.

The next item under "New Business" was a reiteration of Resolution 89.1 passed at the Executive Committee meeting, *to wit*, whereas the Chenango Chapter of the New York State Archaeological Association is hosting the 73rd Annual Meeting and whereas Dr. Richard Hosbach, Richard Bennett, Monte Bennett, Peggy Elliott, Gary Elliott, Lucy Mae Sanders, Eugene Travers, and President Gordon Ginther have worked long and diligent hours to provide our membership with these amenities and programs, be it *resolved*, that the Association express its profound appreciation to the Chenango Chapter and to those named above, we say "Well done." Dolores Elliott brought the motion forward which was seconded by Virginia Stiles, and in turn it was met with a round of applause from the floor.

The next item under "New Business" concerned the proposed sale and destruction of the famous Vosburg Site in Guilderland. The Secretary reported that he had been in contact with Mark Hesler of the Guilderland Historical Society who was designated coordinator to attempt to preserve the site. Dr. Robert Funk, State Archaeologist, and Louise Basa, NYAC Secretary, had been notified, and further information would be forthcoming as the situation developed. The last item under "New Business" was a motion made by Dr. Peter P. Pratt suggesting that a letter be written to ex-president McCracken on behalf of the Association, thanking him for the good job that he accomplished during his short tenure. The Secretary seconded the motion which went to the floor and was approved unanimously. Finally, the Secretary asked if there was any more "New Business." There being no noticeable response, Richard Jackson made the motion to adjourn which was immediately seconded by Ty Tanner and at 4:30 p.m., the General Business Meeting of the New York State Archaeological Association concluded.

**Awards**

Deferred until the NYSAA Annual Banquet, Chairman Dr. Peter P. Pratt announced and presented the following awards:

*Incorporated Orange County Chapter*

Achievement: Dr. Herbert C. Kraft

Meritorious Service Doris Hansen  
Harold R. Decker  
William F. Ehlers

*Incorporated Long Island Chapter*

Meritorious Service: Ellen Barcel  
Jean Cochran  
William F. Golder  
Cynthia Halsey  
Elizabeth McCahill  
Walter Smith

*William M. Beauchamp Chapter*

Meritorious Service: Dr. A. Gregory Sohrweide

*Upper Susquehanna Chapter Incorporated*

Meritorious Service: Roberta Behnke

*Frederick M. Houghton Chapter*

Meritorious Service: James Fell  
Kathryn Guest  
Donald Boyd

*Royal Order of the Pipe: Charles F. Hayes III.*

This presentation was made by Past-President Gordon C. DeAngelo. Mr. DeAngelo mentioned that this now traditional award, while given in a light-hearted manner outside of NYSAA award criteria, was in recognition of long service to the NYSAA and was seriously intended. The 7' 3" long and 39" high black pipe with red eyes was made by Richard Bennett of the Chenango Chapter. At this meeting, Richard Bennett received an award presented by Helen and Ty Tanner and Al LaFrance of miniaturized replicas of previous awards he had created for others.

**Program**  
**Seventy-Third Annual Meeting**  
**New York State Archaeological Association**

April 15 and 16, 1989  
 Howard Johnson Motor Inn, Norwich, New York  
 Host: Chenango Chapter

**Friday April 14, 1989**

9:30 - 11:30 a.m.	NYAC Committee Meetings
11:30 - 1:00 p.m.	Lunch; NYAC Board Meeting
1:00 - 2:45 p.m.	NYAC Business Meeting
3:00 - 6:00 p.m.	NYAC Program: <i>Iroquois</i> <i>Standing Committee on Burial</i> <i>Rules and Regulations</i> Peter Jemison, Chair
4:00 - 6:00 p.m.	NYSAA Registration
7:00 p.m.	NYSAA Standing Committee Meetings
8:00 p.m.	NYSAA Executive Committee Meeting

**Saturday, April 15, 1989**

9:00 A.M	Opening address The Honorable Clarence (Rapp) Rappleyea Minority Leader, N.Y.S. Assembly <i>Symposium of the Iroquoian Speaking Peoples of the Northeast</i>
Moderator	Dr. Robert Funk*, N.Y.S. Archaeologist
Mohawk:	Dr. Dean Snow*
Oneida:	Dr. Peter Pratt*
Onondaga:	Dr. James Bradley*
Cayuga:	Dr. Mary Ann Niemczycki
Seneca:	Dr. Martha Sempowski Dr. Lorraine Saunders

12:00 P.M      Lunch Break

1:00 P.M	
	<i>St. Lawrence Iroquois:</i> Dr. James Pendergast
	<i>Jefferson Co. Iroquois:</i> Dr. Marjorie Pratt
	<i>Hurons and Neutrals:</i> Dr. William D. Finlayson
	<i>Erie:</i> Dr. William Engelbrecht*
	<i>Susquehannocks:</i> Mr. Richard McCracken

4:00- 5:00 P.M Annual Meeting  
 Ballroom, Howard Johnson Motor Lodge

7:30 P.M	Annual Banquet
Invocation	Dr. Nevario Masters
Speaker	Dr. Anthony Aveni, Professor of Astronomy, Colgate University
Topic:	<i>Under Mayan Skies</i>

\* Fellow of NYSAA

**Sunday, April 16, 1989**

**Room A**

Moderator: Richard Hosbach

9:00 A.M.

Susan Bamann  
SUNY Albany  
*Temper Variability in Mohawk  
Iroquois Ceramic Assemblages*

9:30 A.M.

Ron LaFrance  
Cornell University Ithaca, New York  
*A Haudenosaunee Prospective*

10:00 A.M.

Herbert Kraft\*  
Seton Hall University Museum  
*Sixteenth and Seventeenth Century  
European/Indian Contact and Trade  
in the Hudson River Valley*

10:30 A.M.

Mary Katherine  
Elsen Colgate University  
*Order and Chaos: Iroquois Life  
in the Balance*

11:00 A M

Richard Hosbach\*  
Chenango Chapter  
*Update on Glass Bead Cluster Analysis  
of Northeastern Iroquois- Speaking  
Indian Sites - A Preliminary Report*

11:30 A.M.

**Room B**

Moderator: Francis J. Hailey

Ellis McDowell-Loudan

SUNY Cortland  
*Smithfield Beach Site: Archaic through Woodland  
in the Delaware Water Gap, Pennsylvania*

Gary Fogelman

Editor, Fogelman Press Turbotville, Pennsylvania  
*The Paleo Assemblage from Northampton County,  
New York*

Pat McElligott

Chenango Chapter  
*The Mount Moses Rock Shelter*

John Dooley,

East Marion, New York  
*Griffing's Dial: Reconnaissance Mapping  
and the Petit Guerre*

Adrian Mandzy

Michigan State University East Lansing, Michigan  
*The Beacon on the River:  
Excavations at the Charlotte -Genesee Lighthouse*

Patricia Kay Scott

Assistant Director of Archaeology  
Old Fort Niagara, Youngstown, New York  
*The Native American Horizons at Old Fort Niagara*

### **The Achievement Award**

Charles M. Knoll (1958)  
Louis A. Brennan (1960)  
William A. Ritchie (1962)

Donald M. Lenig (1963)  
Thomas Grassmann O.F.M. (1970)  
Paul L. Weinman (1971)

Robert E. Funk (1977)  
Peter P. Pratt (1980)  
Herbert C. Kraft (1989)

### **Fellows of the Association**

Monte Bennett  
James W. Bradley  
Louis A. Brennan  
William S. Cornwell  
Dolores N. Elliott  
William E. Eneelbrecht  
Lois M. Feister  
Robert E. Funk  
Thomas Grassmann O.F.M.  
Alfred K. Guthe  
Gilbert W. Haggerty  
Charles F. Hayes III  
Franklin J. Hesse  
Richard E. Hosbach

Paul R. Huey  
R. Arthur Johnson  
Edward J. Kaeser  
Herbert C. Kraft  
Roy Latham  
Lucianne Lavin  
Donald M. Lenig  
Edward J. Lenik  
Julius Lopez  
Richard L. McCarthy  
Peter P. Pratt  
Robert Ricklis  
William A. Ritchie

Bruce E. Rippeteau  
Donald A. Rumrill  
Bert Salwen  
Harold Secor  
Dean R. Snow  
Audrey J. Sublett  
James A. Tuck  
Stanley G. Vanderlaan  
Paul L. Weinman  
Thomas P. Weinman  
Marian E. White  
Theodore Whitney  
Charles F. Wray  
Gordon K. Wright

### **Certificate of Merit**

Roger Ashton  
Monte Bennett  
Daniel M. Barber  
James W. Bradley  
Gordon De Angelo  
Elizabeth M. Dumont  
Lewis Dumont  
William F. Ehlers  
Dolores N. Elliott  
Garry A. Elliot  
John Ferguson  
Joan H. Geismar

Stanford J. Gibson  
Gwyneth Gillette  
Robert J. Gorall R.  
Michael Gramly  
George R. Hamell  
Franklin J. Hesse  
Richard E. Hosbach  
Albert D. La France  
Edward J. Lenik  
William D. Lipe  
John H. McCashion  
Brian L. Nagel  
Marjorie K. Pratt

Peter P. Pratt  
Harold Secor  
Annette Silver  
Marilyn C. Stewart  
Neal L. Trubowitz  
Charles E. Vandre  
James P. Walsh  
George R. Walters  
Beth Wellman  
Henry P. Wemple  
Roberta Wingerson  
Stanley H. Wisniewski