

# **THE BULLETIN**

**Number 109      Spring 1995**

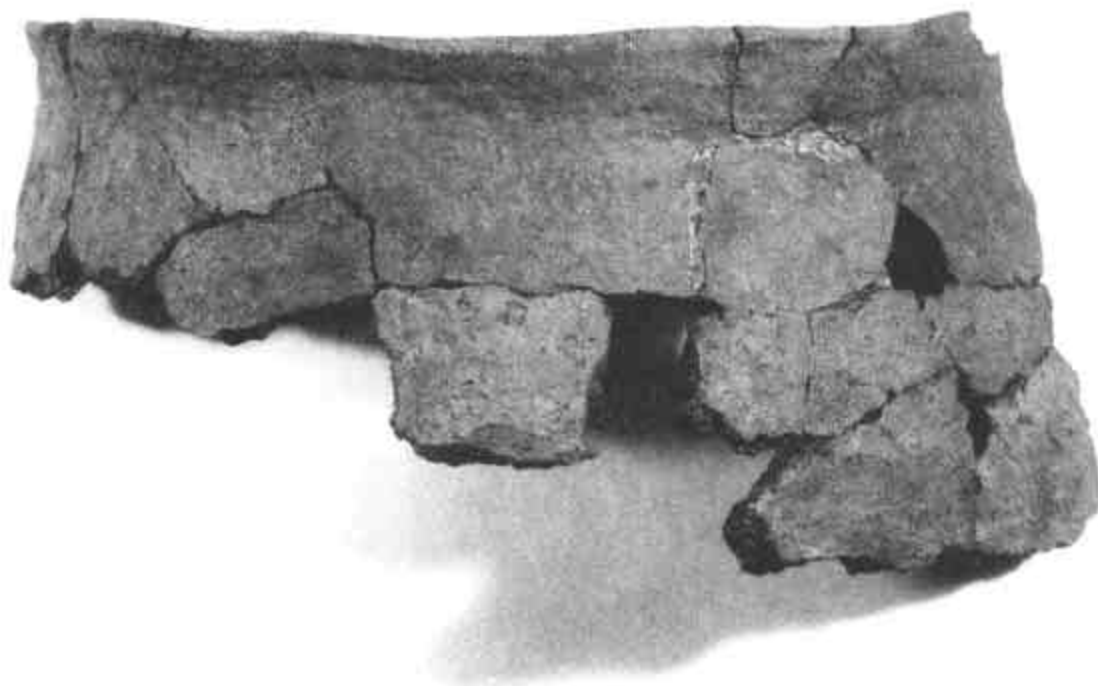
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# The Bulletin

Journal of the New York State Archaeological Association

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Point Peninsula Plain Ceramic Vessel from Brandt's Farm.

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Published by the New York State Archaeological Association.  
Subscription by membership in NYSAA. For membership information write:  
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ISSN-1046-2368  
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# The Brandt's Farm Rockshelter, Dutchess County, New York

Joseph E. Diamond, Mid-Hudson Chapter, NYSAA

*The Brandt's Farm Rockshelter is located in the Town of East Fishkill, Dutchess County, New York. It was investigated as part of a SEQR cultural resource study for a proposed housing project. Archaeological testing and excavation revealed an intact cultural stratum which yielded both historic and prehistoric occupations. The historic occupation is represented by several shotgun shells. The prehistoric occupation is represented by three types of ceramic vessels but, unfortunately, no temporally or culturally diagnostic lithics. The ceramic vessels were found associated with a hearth which yielded an uncorrected radiocarbon date of  $1450 \pm 70$  B.P.*

## Introduction

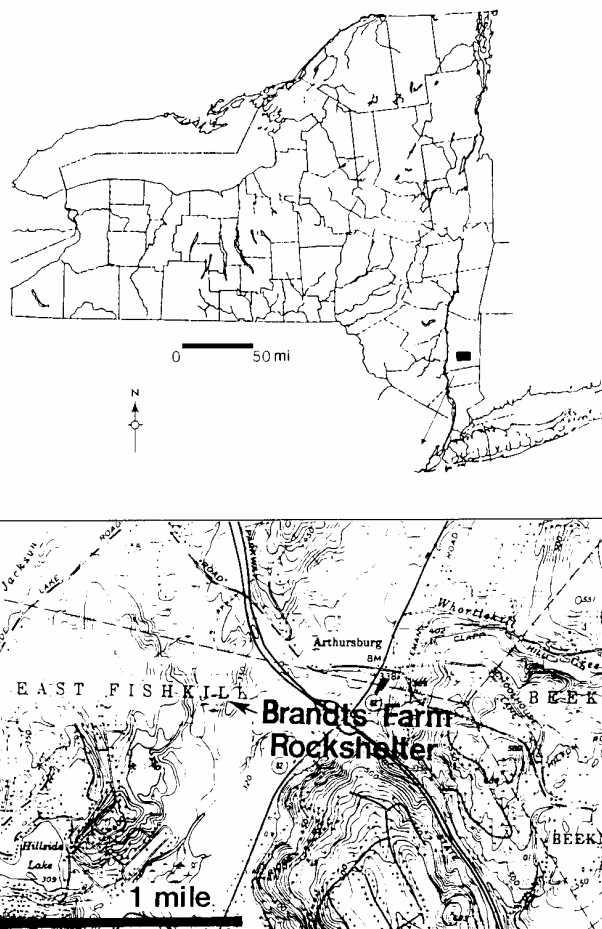
The Brandt's Farm Rockshelter is located in the Town of East Fishkill, Dutchess County, New York (Figure 1). The rockshelter was initially determined sensitive during a Phase 1A cultural resource survey conducted by Hartgen Archaeological Associates of Troy, New York (Hartgen 1990). A Phase 113 archaeological survey conducted by Enviroplan of Poughkeepsie, New York located buried intact archaeological deposits (Cohen 1991). A combined Phase 2/3 archaeological evaluation and mitigation was carried out by the writer in the summer of 1992 (Diamond 1992).

The Brandt's Farm Rockshelter is located at an elevation of approximately 350 ft (105 m) above mean sea level (AMSL), approximately 330 ft (99 m) east of two small man-made ponds along an unnamed tributary of Whortlekill Creek. The rockshelter faces west and overlooks a small terrace which then drops down to the floodplain of the tributary. Beyond the tributary, the ground rises to form a low ridge which overlooks the confluence of Sprout and Jackson creeks to the west.

The shelter is the only inhabitable portion of a rock outcrop composed of Wallomisc Formation Schist (Fisher et al. 1970), which extends approximately 140 ft (42 m) on a southwest northeast axis. Behind and to the east, the land slopes uphill to the Taconic Parkway and continues to an unnamed hill.

## Field Methods

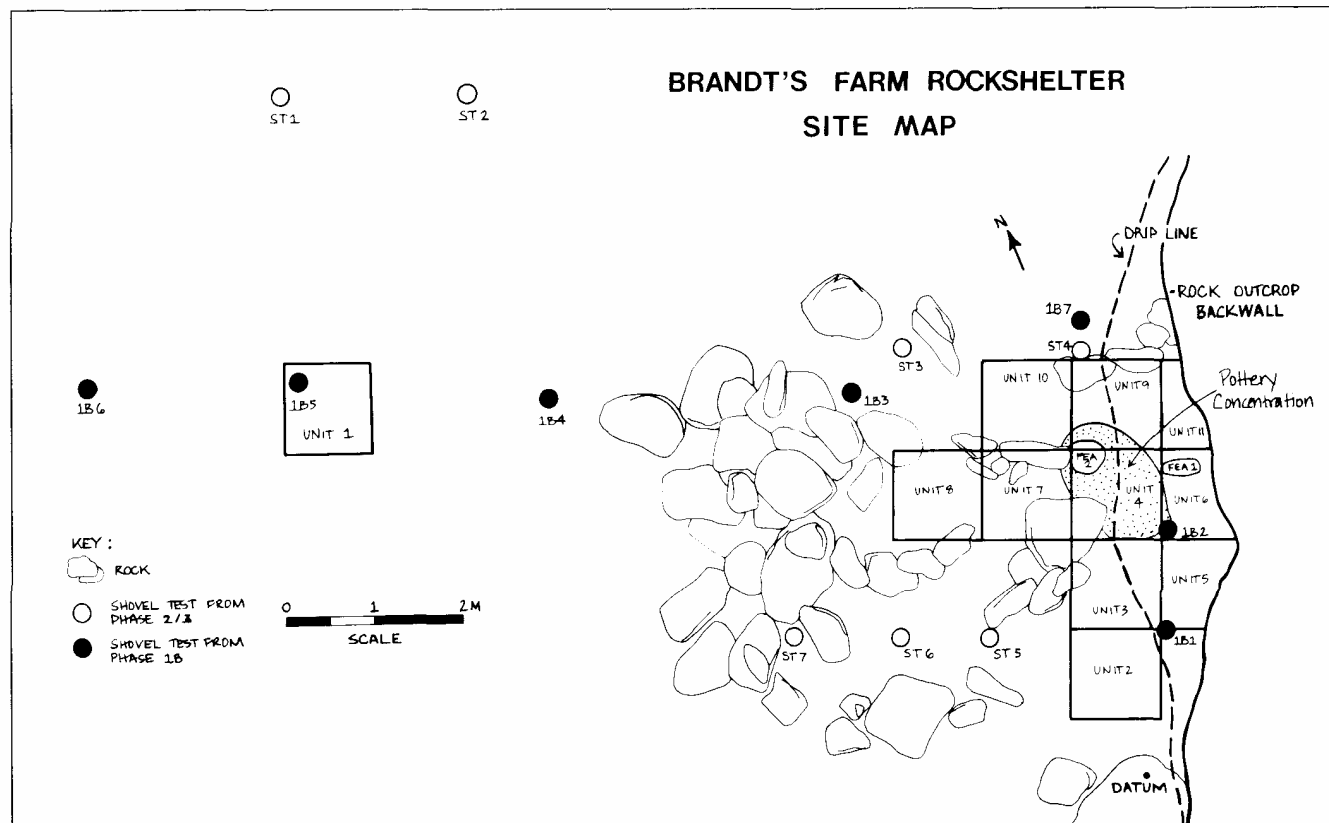
Excavation and testing began on the flat terrace in front of the shelter and proceeded towards the rock outcrop to determine site limits (Figure 2). All excavated sediments were



**Figure 1.** Location of Brandt's Farm Rockshelter, Dutchess County, New York.

screened through ¼ -in hardware mesh. Two shovel tests and a 1.0 m unit failed to locate cultural materials on the terrace. Shovel tests 3 and 4 were placed at the northern edge of the level area within the rockshelter and also failed to locate cultural materials. Shovel tests 5, 6, and 7 were excavated on the slope in front of the rockshelter and similarly yielded no cultural remains.

Excavation was then restricted to the area determined sensitive by the Phase 1 B shovel testing (Cohen 1991). Based on previous testing, the humic zone or Level 1 was found to contain archaeological materials while a deep test into the Level 2, yellow brown silt loam, located no cultural material.



**Figure 2.** Excavation and test units at Brandt's Farm Rockshelter.

Consequently, the excavation concentrated primarily on delimiting the spatial extent and temporal range of the artifacts from the humus. In some cases the interface of the Level 1/2 was excavated to retrieve pottery that had migrated vertically due to rodent activity.

Units 2 through 11 were excavated in numerical order within and just outside the present drip edge of the rockshelter. Excavation began at the southern end of the rockshelter and yielded several artifacts in Unit 2. As additional units were opened to the north, the artifact yield increased in Units 4, 9, and 10. Two features were identified, one inside and one outside the drip edge. From the artifact concentration, it is apparent that the most heavily utilized portion of the shelter was the area in and around Unit 9. Figure 2 illustrates the artifact concentration and location of Features 1 and 2.

### Features

Feature 1 was located within the humic zone in Unit 6, although fragments of charcoal from the feature had migrated well into Level 2. The feature was roughly oval, 30 cm east-west x 10 cm north-south, with a total depth of 9 cm. The feature soil was black to very dark brown (10YR2/1-2/2) humic silt that overlaid fire-affected soil. A radiocarbon

sample taken just above the fire-reddened area yielded an uncorrected date of 1450:±70 years B.P. (Beta- 53915). Feature 1 can be characterized as a small area of undisturbed feature soil within the present drip line of the rockshelter. The association of artifacts with the feature may include most of the pottery found in the rockshelter, given the small size of the shelter.

Feature 2 was located at the corner of Units 4, 7, 9 and 10, partially overlying a rock. The feature was contained within the humus at a depth of 5-17 cm below the surface. Although it was difficult to trace, the shape of the feature was roughly oval, 30 cm north-south x 40 cm east-west. The feature fill was black to very dark brown (10YR2/1-2/2) humic silt with charcoal and Point Peninsula Plain pottery.

Although a radiocarbon sample was taken, it was not dated due to the feature's position outside the drip line and the probability of humic leaching affecting the date (J. Stipp, personal communication, 1992). Due to its location near the top of the humus, Feature 2 may represent an historic (c.1920-1950) hunter's fire (two brass shotgun shells were found in the humus and point to a temporary utilization of the rockshelter), or the fire may relate to the Point Peninsula vessel. The feature appears to be the remains of a cooking fire of short duration. It did not thermally affect the soil beneath it.

## Prehistoric Artifacts

A total of 572 ceramics, 13 cryptocrystalline lithics, and 1 fragment of fire-cracked rock were excavated from the rockshelter.

### Pottery

The 572 fragments of pottery can be attributed to the breakage of three vessels which were commingled vertically as well as horizontally within the humus. The vessel descriptions below are based on Cohen's (1991:6) original description. Dr. Robert Funk assisted in typing the ceramic vessels.

#### *Vessel 1, Point Peninsula Plain*

This vessel (Figure 3) is represented by 128 sherds which are characterized by medium to large schist temper. Sherd exterior colors range from grayish brown (10YR5/2) to light yellowish brown (10YR6/4). The interior is dark gray brown (10YR4/2). The only body decoration consists of smoothed-over cord-wrapped-paddle impressions that are visible on several sherds. The rim is rounded and slightly beveled. Vessel thickness ranges from 7 to 10 cm, with a rim diameter of 24 cm. Capacity is estimated at approximately 6 liters. Several mends at the base suggest a conoidal based vessel of coil construction.

#### *Vessel 2, Ford Net-Marked*

This vessel (Figure 4b) is represented by 14 sherds, characterized by a medium to coarse quartzite grit temper. The sherd exterior colors range from dark grayish brown (10YR4/2) to black mottled with light brown (10YR4/6). The interior of the vessel displays the same color variations. The rim is rounded and the outside edge has been smoothed to 1.8 cm below the lip. The pot was constructed by the coil method.

#### *Vessel 3, Untyped*

This vessel (Figure 4a) is decorated with an incised design within a zone of decoration that runs from just below the rim to 9 cm below the rim. The decoration consists of a series of nested chevrons which culminate in a punctated chevron just below the lip. The punctations were impressed with a small stick-like object at an angle roughly parallel to the lip of the vessel. Between the nested chevrons are four rows of incised lines which form a herringbone pattern. The incised design has no upper border; however, the base of the design is bordered by an incised horizontal line around the shoulder of the pot. The exterior surface treatment consists of smoothed-over cord-wrapped-paddle impressions, while the interior is smooth. The rim is slightly everted with a flat to rounded lip and no decoration. The rim diameter is 38 cm, and the estimated capacity is 6 liters.

The method and order of decoration should be noted here. Based on an examination of the incised lines and noting



**Figure 3.** Brandt's Farm pottery, Point Peninsula Plain (Vessel 1).

overlap of design strokes, the following order can be described. First, the shoulder was incised to form a horizontal zone of decoration. Second, the chevrons were incised in a pattern consisting of the right side first, then the left. After the chevrons were marked, the last two decorations, the herringbone and punctations, were executed. Since the two do not overlap, it is difficult to determine the order of application. It should also be mentioned that the decoration was executed by shallow incising tool rather than a comb-like object, both of which appear to be minority attribute states in the Middle Woodland Period.

#### Lithics

Lithics recovered from the rockshelter during testing and mitigation comprise 13 pieces, none of which is diagnostic. One scraper made of quartzite, 3 marginal bifaces (1 chert, 2 quartzite) and 9 fragments of debitage (6 chert, 3 quartzite) complete the inventory. Four Normanskill chert artifacts display cobble-like cortex, suggesting a possible origin near the Whortlekill Creek.

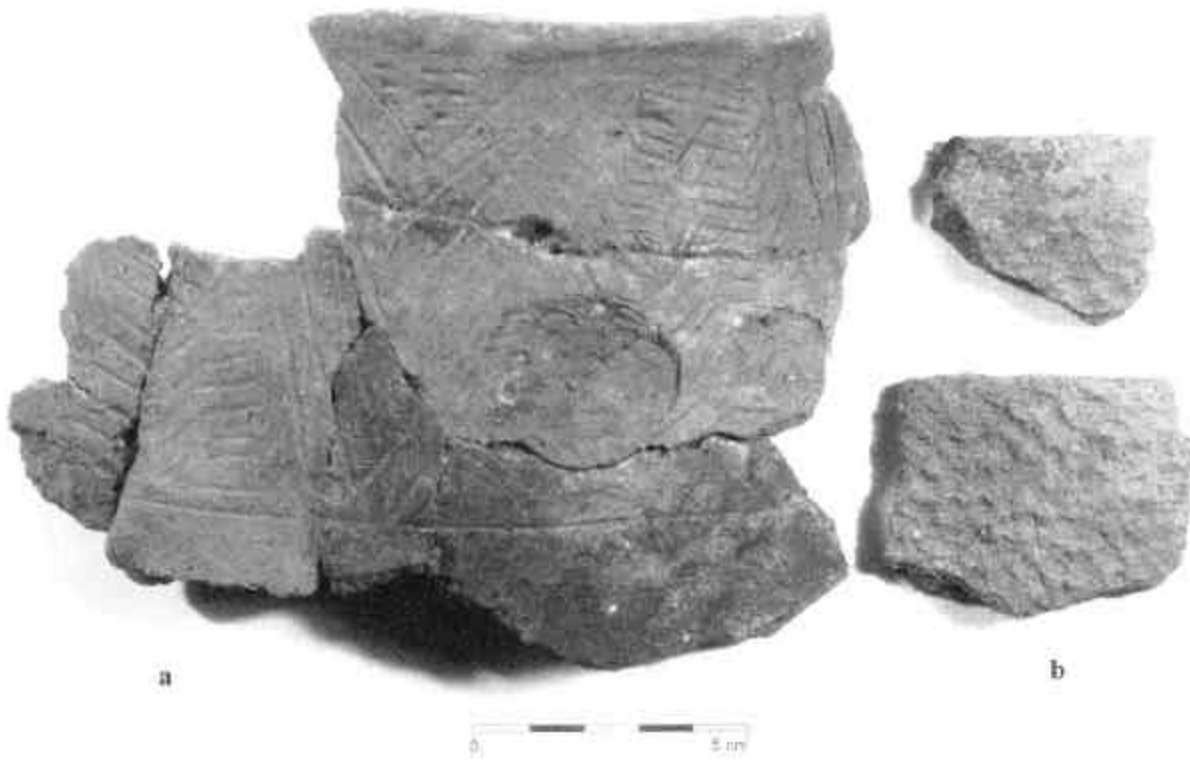
#### Fauna

Faunal remains from the rockshelter comprise 5 bones and 2 land snail shells. The bones appear to be of squirrel or chipmunk and are probably the result of death by natural causes rather than as part of a prehistoric meal. There is the possibility that they may relate to the early twentieth-century hunter who briefly stopped at the shelter. None of the bones is fire-affected.

Two coprolites were found. Based on size and their close proximity to the animal burrow at the rear of the shelter, they are thought to be raccoon or opossum scats and were not sent out for analysis.

#### Historic Artifacts

Like most rockshelters in the Hudson Valley (Funk 1976, 1989), the Brandt's Farm Rockshelter has a small historic component. This occupation is represented by two 410 shotgun shells. The shell casings are brass and debossed "REM 410 Nitro." The Remington "nitro" shell was used from the 1920s until approximately 1950 (J. Burggraf, personal communication, 1992).



**Figure 4.** Brandt's Farm Pottery: a., untyped (Vessel 3); b., Ford Net-Marked (Vessel 2).

## Discussion

The Brandt's Farm Rockshelter yielded 572 prehistoric ceramics representing three vessels, and 13 lithic artifacts. None of the lithics is diagnostic. The most temporally diagnostic of the three vessels is the Ford Net-Marked pottery. Ford Net-Marked is a Middle Woodland ceramic which was named after the type site at the confluence of the Roeliff Jansen Kill and Hudson River (Funk 1976:124). Ford Net-Marked is one ceramic type associated with the Fox Creek Phase, which has been dated A.D. 360±100 years at the Fredenburg Site (Hesse 1968) and A.D. 410±80 years and A.D. 450±80 years from the Westheimer Site (Ritchie and Funk 1973:148). In western Connecticut, Swigart has dated a Fox Creek cache/firepit at 480±200 (1978:25). The date of A.D. 500±70 from Feature 1 points to a Fox Creek attribution.

The geographical range of the Fox Creek Phase as presently known extends from the Susquehanna, through the Mohawk, and into the Hudson Valley (Funk 1976: Appendix XIII). Sites are associated with Fox Creek projectile points and Ford Net-Marked pottery. Similar points are found in coastal New York (Kaesler 1963, 1968) in association with North Beach Net-Marked pottery.

The Point Peninsula Plain vessel (Ritchie and MacNeish 1949:103) is a ceramic type that is roughly coeval with the Fox Creek Phase. However, its utility as a temporal indicator is limited both by its lack of ornamentation and its long temporal span.

The most problematic vessel of the three is the pot which I have left untyped. Vessel 3, while not reconstructed, is made in a Middle Woodland form, although certain attributes suggest an origin in the early Late Woodland. The flat lip is slightly outflared and then contracts to form a small shoulder. The herringbone motif bears some resemblance to Bowman's Brook forms (Kraft 1975:113, Figure 7p; Staats 1974, 1990:61, Figure 8; Smith 1950) and even an Overpeck Incised-like vessel from the Miller Field Site in New Jersey (Staats 1992:10). The latter, like Vessel 3, displays a smoothed-over corded exterior. In the literature the most commonly encountered shape of Bowman's Brook forms is "a hornet's nest or egg-shaped vessel with straight or slightly in-sloping rim with usually flattened lips" (Kraft 1975:115). However, the type also includes a number of vessels which have in-sloping necks and outflaring and straight rims like Vessel 3 (see also Snow 1980:329, Figure 8.8, lower left). Although Bowman's Brook vessels display smooth exteriors and are rarely cordmarked (Smith 1950:192; Staats 1974:1), there is probably enough variability to suggest that some Bowman's Brook forms may display this kind of exterior treatment.

As a conservative estimate, two possibilities exist. The first is that Vessel 3 is Bowman's Brook Incised. If this is the case, it may be indicative of an East River intrusion into

the Lower Hudson Valley from New Jersey as postulated by Smith (1950:192). The second is that Vessel 3 represents a Middle Woodland incised form which bears similarities to Wickham Incised to the north (Ritchie and MacNeish 1949:104) and Black Rock Trilled in the Hudson Valley (Funk 1976:315). Lavin (1984:20) has noticed similar design elements on vessels from Connecticut. She notes that

the data tentatively suggest that by Middle Woodland times, at least, Native American communities in the Northwest quadrant of the state [Connecticut] were participants in the interior New York based Point Peninsula pottery tradition, rather than the indigenous Windsor tradition [Lavin 1984:20].

In either case, I am hesitant to type Vessel 3.

The Brandt's Farm Rockshelter may be interpreted in several ways. As previously mentioned, the site was utilized for shelter by a hunter in the first half of the twentieth-century. The only evidence of his/her passing was the loss or discharge of two shotgun shells. Prehistoric use or occupation is somewhat cloudier with several possible alternatives. The first is that, due to the similarities in paste and interior and exterior appearance, the pottery from the three vessels is representative of one phase or occupation. From a subjective point of view, the pottery does appear to have been made by one individual (Robert Funk, personal communication, 1992). Ford Net-Marked, Point Peninsula Plain, and Wickham Incised or Black Rock Trilled are Middle Woodland types with Point Peninsula Plain having the longest temporal span. Thus, it is not inconceivable that the three were used by one cultural group at one point in time. The radiocarbon date of 1450±70 B.P. points to a Middle Woodland occupation. Since no diagnostic lithics were found, it seems reasonable to associate the Ford Net-Marked pottery with this date, given comparable dates at other sites throughout New York and Connecticut.

The second alternative is that the pottery represents multiple occupations in the Middle Woodland, or in the Middle and then late Woodland (e.g., Bowman's Brook). Since two features were found, this is a possibility.

Since only 12 lithics were found at the site, it is highly unlikely that the rockshelter represented anything more than a convenient location for brief stopovers. This appears to be the case with many rockshelters in the Hudson Valley (Funk 1976, 1989). Brief occupations are represented by several artifacts left by each archaeological culture. In some cases, whole or reconstructable vessels are excavated or found cached in crevices. Possible explanations for this behavior may relate to site function. Rockshelters, particularly smaller examples such as



the Brandt's Farm Rockshelter may represent one of the smallest settlement system units in the seasonal rounds of hunter-gatherers. Pottery vessels may have been cached for use during trips away from larger camps or habitation sites.

The use of the rockshelter in historic times by a hunter may provide a useful analogy for similar behavior in prehistory. The estimated dry area of the rockshelter is approximately 3 sq m with, at present, only 1 sq m of space where one may stand. This means that two-thirds of the dry portion can be occupied in only a crouching or sleeping position (see also Binford 1983:162-163). Feature 1 was within the drip line, further diminishing the total available space for occupation. Moreover, the artifacts from both the historic and prehistoric occupations clustered near the features, attesting to the longevity of that portion of the shelter as a dry space, partially protected from the elements.

The ceramic vessels found in the rockshelter may represent an occupation by a "nuclear family," although the lack of lithics weighs against this. Additionally, there is no indication of interior encrustation on the pottery, suggesting use for storage rather than cooking. However, since there are two hearths at the shelter, the pots may have broken early in their use lives, having provided their makers with one or two meals. In discussing the forms of ceramic breakage represented in Late Woodland features, Moeller has suggested that rim fractures are common and that often the remainder of the vessel probably continued its intended function elsewhere (1992:93). He posited this as a possible explanation for apparent idiosyncratic variation and small sample sizes of ceramics from the Delaware Valley. This may also be applicable at Brandt's Farm, particularly regarding the Ford Net-Marked vessel which is only represented by 14 fragments. Taken together, the fragments do not constitute a large percentage of the total vessel.

In sum, the excavation of the Brandt's Farm Rockshelter has raised as many, if not more, questions than it has answered. It is hoped that future studies of Middle Woodland and early Late Woodland ceramics in southeastern New York and western Connecticut may shed some light on the issues raised here.

### Acknowledgments

The author wishes to thank Thomas Mills, Frank Spada, and Bonnie Bogumil for their assistance during field work. Bonnie Bogumil drafted the figures. Dr. Robert Funk and J.R. Cohen read and commented on the manuscript. Any errors are my own.

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1992 Dr. Robert Funk, State Archaeologist, New York State Museum and Science Service, Albany, New York.  
1992 Dr. Jerry Stipp, Beta-Analytic, Coral Gables, Florida.

# The Kitchen Garden Site (NYSM 1305)

James P. Walsh, Auringer-Seelye Chapter, NYSAA

*The excavation and interpretation of a single-component Laurentian (Brewerton) site near Saratoga Lake, Saratoga Springs, New York, is presented, along with a preliminary analysis of the lithic debitage.*

## Introduction

The Kitchen Garden Site is located at Saratoga Lake, in the outside district of the City of Saratoga Springs, New York, approximately 500 ft west-northwest of the Arrowhead Casino Site (NYSM 1307) (Walsh 1977). The site first came to the attention of the author in the spring of 1972

when he established a 35 ft x 75 ft vegetable garden behind his home. Materials plowed up at that time, as well as in subsequent tillings, were collected and noted. Prior commitments to other excavations prevented any formal investigation of the site at that time.

Due to the frequency of lanceolate knives found on the surface, the decision was made to conduct a limited excavation in 1976. Twenty-two 5 ft x 5 ft units were excavated within the plowed area during September and October of that year. The result of that work was rather disappointing since for all practical purposes, the gardening activities had obliterated

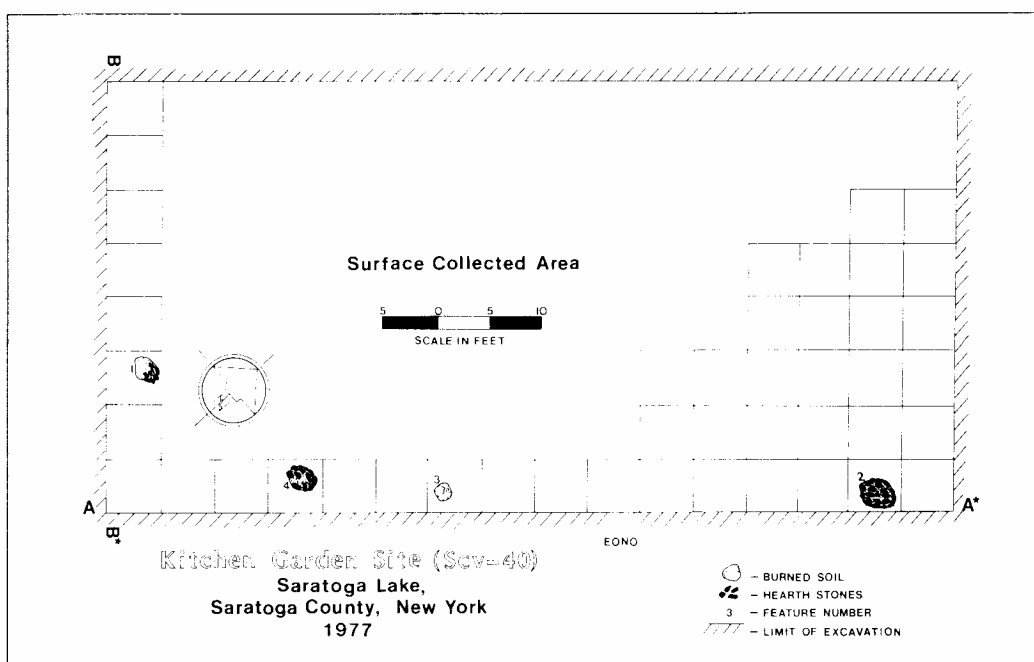


Figure 1. Map of excavations and surface collection area, Kitchen Garden Site, showing locations of features.

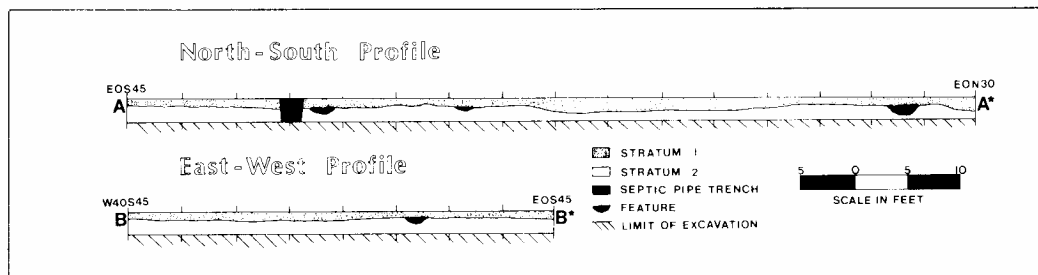


Figure 2. Soil profiles, Kitchen Garden Site.

any identifiable occupational layer. Artifacts recovered from this portion of the excavation included 1 Brewerton Side-Notched point (Ritchie 1961), 2 lanceolate knives, 1 lanceolate knife base, 1 preform, 4 broken preforms, 5 knife or projectile point tips, 2 hammerstones, 1 whetstone, 432 flakes, and a large quantity of fire-cracked stone.

During June and July of 1977, 23 5 ft x 5 ft units were excavated to an average depth of 18 in on two edges of the garden plot, essentially a north-south and an east-west trench (Figures 1-2). More satisfying results were obtained from this portion of the site, and it was largely from this area of excavation that the data presented in this report were recovered.

In an effort to determine the limits of the site, further work was undertaken during the 1978 digging season (Figure 3). Four 5 ft x 80 ft parallel trenches spaced 5 ft apart were excavated on the western edge of the garden. Except for the

occasional chert flake, fire-cracked rock, or twentieth-century ceramic sherd, this area proved to be non-productive. Another trench, 5 ft x 100 ft, beginning 20 ft south of the southeast corner of the excavation and proceeding east to Arrowhead Road, yielded the same results. A well-defined plowzone was observable in both trench areas.

### Soil Profile

The soil in the unplowed units was divided into two strata, differentiated by color and texture (Figure 2). Stratum 1 consisted of medium to light brown sandy soil ranging in thickness from 6-14 in. Stratum 2 was composed of compact, light tan to yellow sand. All features and the majority of artifacts were found at or very near the junction of the two soil zones. Soil tests gave an average reading of pH 5.0-6.5.

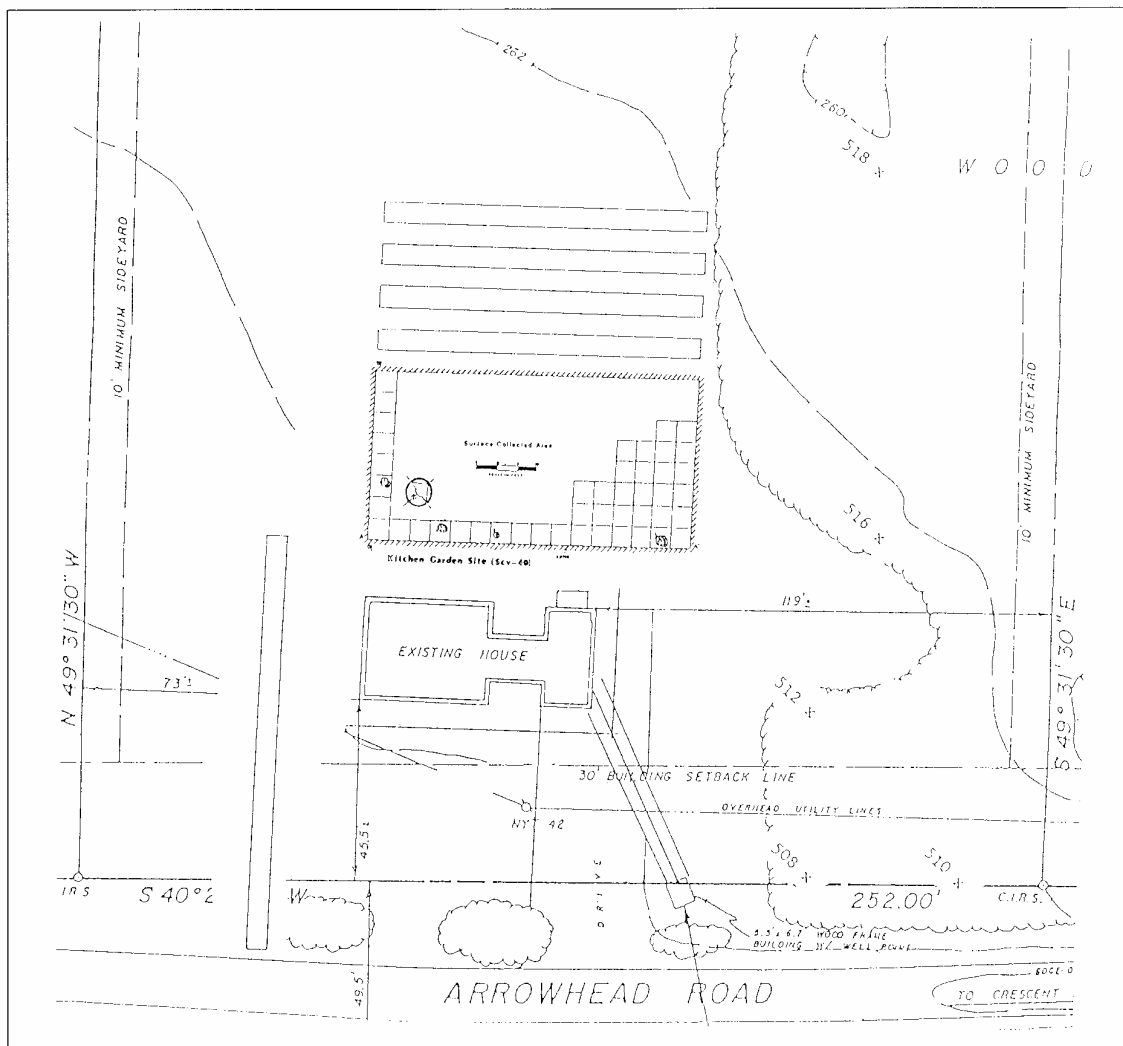


Figure 3. Map of the Kitchen Garden Site, showing trenches excavated in 1978.

## Features

Although a great quantity of fire-cracked stone was noted during the examination of the plow-disturbed area, no features were discovered until 1977. At this time four features, all hearths, were encountered (Figures 1, 2, and 4).

### Feature 1

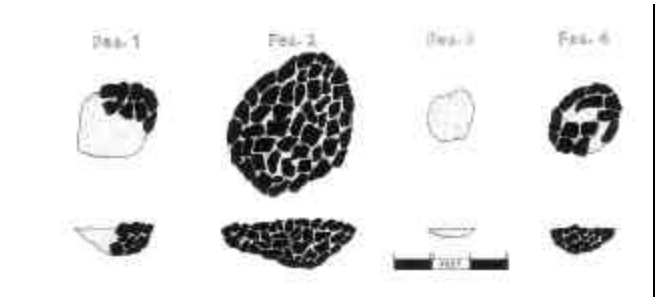
Unit W10X50. A circular, basin-shaped hearth was encountered 6 in below the surface. The feature measured 24 in x 27 in with a maximum thickness of 9 in. Twenty-seven firecracked stones were piled in the northwest corner of the feature. Twenty-two flakes and a Brewerton Side-Notched point (Figure 5[3]) were found within the feature.

### Feature 2

Unit E0N20. An oval, basin-shaped hearth was encountered 7 in below the surface. The feature measured 45 in x 35 in with a maximum thickness of 13 in, and contained 167 fire-cracked



**Figure 5.** 1-20, Brewerton Side-Notched points; 11, Brewerton Eared-Triangle point; 12-18, 21, 23-24, lanceolate knives; 19-20, 22, triangular knives; 26-29, preforms. Materials: 1, 25, 29, Eastern Onondaga flint; 224, 37-28, Normanskill flint; 26, Fort Ann flint.



**Figure 4.** Plans and profiles of features, Kitchen Garden Site.

stones. One hammerstone, 2 pestle fragments (Figure 6 [1-2]), 1 point tip, 1 Brewerton Side-Notched point (Figure 5[8]), and 105 flakes were recovered from the feature.

### Feature 3

Unit E0S20. A circular red stain with scattered charcoal flecks was encountered 9 in below the surface and measured 13 in x 15 in with a maximum depth of 2 in. The feature contained a lanceolate knife base and 11 flakes.



**Figure 6.** 1-2, pestle fragments; 3, celt; 4-5, hammerstones; 6, bannerstone fragment; 79, choppers. Materials: 1-2, 4, 6, sandstone; 3, 7, quartzite; 5, 9, quartz; 8, granite.



**Figure 7.** Feature 4. A, I3, soil strata; a, Brewerton Side-Notched point (see Figure 5 1J); b, lanceolate knife (see Figure 5 [161]).

#### Feature 4

Unit EOS35. A circular, basin-shaped hearth (Figure 7) was encountered 11 in below the surface and measured 18 in x 18.5 in with a maximum thickness of 6.5 in. A lanceolate knife (Figure 5[16]), 39 flakes, and 49 fire-cracked stones were found within the feature. A Brewerton Side-Notched point (Figure 5[9]) was found in close proximity to the feature.

#### Artifacts

A sample of 79 items was collected from the site: 1 whetstone, 2 pestle fragments, 1 celt, 6 hammerstones, 3 choppers, 1 bannerstone fragment, 6 projectile point or knife blade fragments, 15 projectile point or knife tips, 1 drill tip, 12 preforms, 10 Brewerton Side-Notched points, 1 Brewerton Eared-Triangle point (Ritchie 1961), 4 triangular and 16 lanceolate knives. Many of these knives exhibit an edge-wear polish comparable to that described by S.A. Semenov (1964)

for meat- or fresh hide-cutting knives of the Russian Upper Paleolithic. Two specimens exhibit polish on one edge with backing (deliberate blunting) on the other.

Flaked artifacts manufactured from silicious material included 31 of Normanskill flint, 4 of Eastern Onondaga flint, 2 of Fort Ann flint, and 1 of quartzite. The "rough" stone tools were fashioned from greywacke, siltstone, sandstone, and traprock.

#### Debitage

Particular attention was paid to the collection of all flint wastage. A total of 1,346 flakes was recovered from the site. Of this sample, 1,286 were of Normanskill flint, 34 were of Eastern Onondaga flint, and 17 were of chalcedony.

An attempt was made to distinguish between hard-hammer and soft-hammer-struck flakes. Criteria for evaluation included flake size, size and shape of striking platform, pronouncement of bulb of percussion, flaking angle, the length/width/thickness ratio of each flake, and a certain

**Table 1.** Projectile Point Data.

No.	Type	Material	Length	Max. Width	Hafting Width	Max. Thickness	Weight	Illustration
1	Brewerton Side-notched	E. Onondaga	50	27	20	11	12.7	Figure 5[1]
2	Brewerton Side-notched	Normanskill	42	24	12	9	7.6	Figure 5[2]
3	Brewerton Side-notched	Normanskill	37	20	12	7	4.9	Figure 5[3]
4	Brewerton Side-notched	Normanskill	31	20	14	7	3.6	Figure 5[4]
5	Brewerton Side-notched	Normanskill	35	23	20	7	3.9	Figure 5[5]
6	Brewerton Side-notched	Normanskill	45	28	22	9	8.7	Figure 5[6]
7	Brewerton Side-notched	Normanskill	46	27	21	5	6.4	Figure 5[7]
8	Brewerton Side-notched	Normanskill	38	20	15	7	5.2	Figure 5[8]
9	Brewerton Side-notched	Normanskill	36	19	16	6	3.6	Figure 5[9]
10	Brewerton Side-notched	Normanskill	34	20	15	6	3.9	Figure 5[10]
11	Brewerton Eared-Triangle	Normanskill	32	20	19	6	3.5	Figure 5[11]

amount of practical experience based on seven years of flint-knapping experiments. Of the 1,346 flakes studied, 920 could not be satisfactorily categorized, being broken, resolved, or otherwise not meeting standards for judgment. Of the 426 flakes remaining, 250 are regarded as being hard-hammer struck, and 176 are judged to be soft-hammer (Table 3). The author hopes to complete a more detailed study of this material in the future.

## Discussion

Bender and Curtin have stated that

Arrowhead Road is a very large site, and relatively undifferentiated by topography. These conditions decrease the likelihood that individual occupations made at different times will spatially overlap. The degree to which different occupations actually overlap may vary according to other factors, such as proximity to the lake. It is perhaps for this reason that Arrowhead Casino, Arrowhead 2, and Cottonwood (all directly overlooking the lake) are multicomponent, while the Kitchen Garden locus, in the interior of the kame, is a single component site [Bender and Curtin 1990b:9].

Hartgen Archeological Associates commented that

Based upon the results of Walsh's and HAA's work, it appears that the majority of the prehistoric loci are located within 100 feet or so of the edge of the terrace overlooking Saratoga Lake. The 'Rafters' night club area is an excellent example of the type of location favored by the Indians. However, the Kitchen Garden locus lies hundreds of feet away from the edge of the

terrace, an indication of how dispersed prehistoric deposits on the terrace can be [Hartgen Archeological Associates 1987:3].

The Kitchen Garden Site appears to represent a single-component Laurentian (Brewerton) occupation dating from 2500 to 2000 B.C. (Hartgen Archeological Associates 1987). Diagnostic Brewerton material was excavated at the Arrowhead Casino Site and was likewise found at Arrowhead 2. The author has stated that

Evidence points to the Arrowhead Casino site as being a seasonally occupied hunting station, with intermittent occupations dating roughly within the time span of 3000-1000 B.C. A fall occupation is indicated by the pestles and mullers found, suggesting the collection of nuts and other seeds. Hunting was no doubt the main activity; out of 474 artifacts collected, 433 relate to hunting, being projectile points, scrapers and knives [Walsh 1977:36].

The same conclusion may be drawn when examining the Arrowhead 2 data.

The interior location of the Kitchen Garden Site suggests to the author a very late fall or perhaps winter occupation. One can only imagine the forest cover of the day, but certainly being somewhat removed from the terrace edge would provide significant sheltering from the lake winds.

During Late Archaic times, as now, the vegetation on the terrace was characteristic of a transitional zone, with oak, beech, and hickory the predominant species. At present the south-facing slopes of the kame terrace attract and hold deer throughout the fall and winter. If a like situation were the case during Brewerton times, the late-season attractiveness of the area is apparent.

**Table 2.** Debitage Data, Kitchen Garden Site (NYSM 1305).

Unit No.	Total No. of Flakes	Normanskill Flint	East Onondaga Flint	Quartzite	Chalcedony	Hard Hammer	Soft Hammer	Other
W20S50	10	10	—	—	—	5	3	2
E0N20	100	100	—	—	—	41	13	46
E0S40	24	23	1	—	—	6	6	12
W5N5	71	69	—	2	—	10	13	48
W15S50	14	11	3	—	—	8	4	2
W20N25	11	10	1	—	—	7	0	4
W5S50	16	16	—	—	—	6	1	9
W5N20	32	32	—	—	—	5	6	21
W25S50	18	17	—	1	—	8	3	7
E0N0	30	28	2	—	—	8	5	17
W10N5	9	8	—	—	1	3	0	6
W5N15	27	27	—	—	—	3	3	21
W10N15	15	15	—	—	—	5	0	10
E0N10	50	48	2	—	—	12	7	31
W10N10	11	11	—	—	—	3	0	8
W5N10	25	25	—	—	—	3	3	19
E0S50	21	20	1	—	—	2	3	16
E0S30	29	28	1	—	—	5	5	19
W10S50	22	19	—	—	3	10	3	9
W20N10	12	7	3	—	2	1	2	9
W10N20	56	55	1	—	—	7	7	42
W25N20	6	6	—	—	—	1	1	4
W15N25	6	6	—	—	—	1	3	2
E0S45	21	20	1	—	—	5	3	13
E0N5	31	29	—	2	—	4	6	21
W20N20	4	4	—	—	—	2	0	2
W15N20	8	8	—	—	—	2	0	6
W35S50	8	8	—	—	—	1	2	5
W25N25	3	3	—	—	—	1	0	2
W10N0	12	9	1	2	—	0	1	11
W15N10	8	7	—	—	1	2	0	6
E0S20	57	56	1	—	—	8	7	42
E0N15	47	45	1	1	—	7	8	32
E0S35	88	83	2	—	3	11	12	65
W5N25	73	73	—	—	—	5	5	63
E0S10	41	38	1	—	2	6	4	31
W30S50	13	11	—	—	2	2	3	8
E0S25	37	34	2	—	1	5	5	27
W5N0	115	114	1	—	—	8	11	96
W15N15	9	6	2	—	1	3	0	6
E0N25	42	41	1	—	—	9	4	29
E0S15	32	29	2	—	1	3	6	23
W10N25	20	19	1	—	—	2	4	14
E0S5	55	52	3	—	—	4	3	48
W20N15	7	6	—	1	—	0	1	6
Totals	1,346	1,285	34	9	17	250*	176*	920

\*Sample: 250+176=426



**Table 3.** Debitage Data, Kitchen Garden Site (NYSM 1305).

Unit No.	Hard Hammer			Soft Hammer		
	Length (mm)	Width (mm)	Thickness (mm)	Length (mm)	Width (mm)	Thickness (mm)
W20S50	48	19	7	31	27	5
	44	38	8	20	21	8
	22	20	6	34	32	5
	34	22	8	—	—	—
	36	35	9	—	—	—
E0N20	41	29	5	22	30	5
	27	35	8	30	30	3
	36	25	4	27	25	4
	29	24	5	24	30	5
	45	34	5	12	23	3
	40	21	4	26	29	4
	25	30	4	22	17	4
	36	24	8	20	14	3
	50	22	7	17	14	3
	29	19	4	19	13	2
	30	24	5	14	15	2
	32	24	4	13	20	2
	25	30	6	15	13	2
	23	22	4	—	—	—
	19	24	5	—	—	—
	24	24	4	—	—	—
	25	23	3	—	—	—
	27	16	4	—	—	—
	23	24	2	—	—	—
	16	24	3	—	—	—
	24	16	3	—	—	—
	29	15	4	—	—	—
	24	13	4	—	—	—
	25	10	3	—	—	—
	30	16	4	—	—	—
	21	15	5	—	—	—
	22	14	2	—	—	—
	28	20	3	—	—	—
	17	14	3	—	—	—
	19	13	2	—	—	—
	15	13	2	—	—	—
	15	12	2	—	—	—
	24	16	3	—	—	—
	21	14	4	—	—	—
	22	16	3	—	—	—
	22	15	7	—	—	—
	24	14	2	—	—	—
	17	10	2	—	—	—
	13	12	2	—	—	—
	27	10	4	—	—	—
	20	9	5	—	—	—
E0S40	20	14	5	22	25	6
	27	22	6	21	17	3
	30	19	7	21	15	2
	24	16	3	23	16	2
	27	15	4	13	23	3
W5N5	22	11	6	22	16	3
	24	10	7	44	23	4
	30	19	8	23	32	6
	23	24	4	31	22	5

**Table 3.** Debitage Data, Kitchen Garden Site (NYSM 1305) (continued)

Unit No.	Hard Hammer			Soft Hammer		
	Length (mm)	Width (mm)	Thickness (mm)	Length (mm)	Width (mm)	Thickness (mm)
W5N5	22	19	6	23	35	4
	22	14	5	26	21	4
	31	24	4	33	29	5
	10	14	3	24	17	5
	14	25	5	24	7	4
	17	11	3	20	20	3
	24	13	4	15	20	2
	—	—	—	18	17	3
	—	—	—	14	13	2
	—	—	—	13	15	2
	—	—	—	14	16	2
	—	—	—	—	—	—
W15S50	25	24	5	40	25	4
	24	20	8	35	30	4
	33	20	3	31	30	3
	26	16	7	20	31	4
	37	19	6	—	—	—
	20	17	7	—	—	—
	40	22	8	—	—	—
	39	12	6	—	—	—
W20N25	62	45	20	—	—	—
	20	16	5	—	—	—
	40	25	7	—	—	—
	31	22	4	—	—	—
	23	24	5	—	—	—
	25	17	5	—	—	—
	27	16	6	—	—	—
	—	—	—	—	—	—
W5S50	25	20	4	27	29	3
	31	29	6	—	—	—
	34	24	8	—	—	—
	28	19	5	—	—	—
	16	12	4	—	—	—
	41	19	6	—	—	—
W5N20	51	39	11	35	43	4
	40	21	7	40	22	4
	29	22	5	24	23	3
	27	19	6	22	27	4
	33	22	5	20	19	3
	—	—	—	16	15	2
W25S50	33	25	8	18	22	3
	25	30	11	21	29	3
	35	24	6	23	18	3
	41	19	7	—	—	—
	38	17	8	—	—	—
	29	15	7	—	—	—
	16	22	6	—	—	—
	29	13	2	—	—	—
E0N0	58	27	10	21	20	4
	28	32	11	18	21	3
	49	28	9	16	20	2
	25	25	5	21	11	2
	34	22	5	18	20	2
	33	25	7	—	—	—
	37	19	7	—	—	—
	24	17	4	—	—	—
	—	—	—	—	—	—
W10N5	28	20	6	—	—	—
	19	22	5	—	—	—

**Table 3.** Debitage Data, Kitchen Garden Site (NYSM 1305) (continued)

Unit No.	Hard Hammer			Soft Hammer		
	Length (mm)	Width (mm)	Thickness (mm)	Length (mm)	Width (mm)	Thickness (mm)
W10N5	30	17	4	—	—	—
W5N15	21	20	4	21	27	3
	26	17	6	15	13	2
	21	15	4	14	20	4
W10N15	54	42	12	—	—	—
	41	34	9	—	—	—
	17	20	6	—	—	—
	29	16	5	—	—	—
	30	19	4	—	—	—
E0N10	38	25	7	21	20	3
	39	33	8	22	17	2
	35	24	6	16	17	2
	28	25	8	15	13	2
	32	17	4	14	19	2
	30	18	6	13	21	2
	22	17	4	15	17	2
	27	17	4	—	—	—
	28	13	5	—	—	—
	14	10	4	—	—	—
	26	15	7	—	—	—
	20	13	4	—	—	—
W10N10	38	31	8	—	—	—
	39	19	7	—	—	—
	20	15	7	—	—	—
W5N10	34	27	7	20	21	4
	36	17	6	19	19	3
	34	27	6	15	13	2
E0S50	43	32	11	35	29	5
	20	22	9	36	30	4
	—	—	—	12	17	2
E0S30	30	28	12	33	40	6
	29	22	10	26	24	5
	36	21	5	14	19	3
	32	23	6	22	17	2
	36	21	7	13	14	2
W10S50	30	25	11	29	25	4
	26	17	5	28	18	3
	27	20	6	16	15	2
	35	16	5	—	—	—
	34	19	4	—	—	—
	29	15	4	—	—	—
	28	10	5	—	—	—
	16	14	3	—	—	—
	25	12	4	—	—	—
	23	11	3	—	—	—
W20N10	29	18	4	26	25	4
	—	—	—	12	23	3
W10N20	43	19	6	27	33	3
	21	25	7	28	24	4
	27	14	5	23	20	3
	25	22	4	11	22	2
	27	12	5	20	15	2
	20	15	4	16	15	2
	24	15	3	21	15	2
W25N20	30	25	7	26	35	4
W15N25	40	24	7	23	27	4

**Table 3.** Debitage Data, Kitchen Garden Site (NYSM 1305) (continued)

Unit No.	Hard Hammer			Soft Hammer		
	Length (mm)	Width (mm)	Thickness (mm)	Length (mm)	Width (mm)	Thickness (mm)
W15N25	—	—	—	25	32	4
	—	—	—	20	19	3
E0S45	42	21	4	20	27	4
	25	17	5	25	22	4
	21	7	3	26	21	2
	31	17	5	—	—	—
	29	16	6	—	—	—
E0N5	29	25	6	34	48	10
	25	20	4	30	25	3
	23	12	2	31	27	3
	24	15	3	20	22	2
	—	—	—	25	32	3
	—	—	—	27	22	2
W20N20	40	30	6	—	—	—
	30	25	5	—	—	—
W15N20	26	20	5	—	—	—
	18	24	5	—	—	—
W35S50	30	28	4	16	18	3
	—	—	—	31	28	2
W25N25	31	17	5	—	—	—
W10N0	—	—	—	30	34	4
W15N10	20	21	7	—	—	—
	18	20	5	—	—	—
E0S20	59	20	4	30	43	7
	41	30	6	30	48	6
	15	20	5	36	19	3
	26	17	4	20	18	3
	40	15	3	20	20	3
	30	14	3	21	30	3
	23	15	4	20	21	4
	22	14	3	—	—	—
E0N15	52	33	10	45	30	7
	35	12	4	43	35	4
	32	28	3	21	30	3
	20	14	5	30	28	3
	27	20	5	25	20	2
	20	18	4	26	28	2
	21	13	3	34	25	3
	—	—	—	28	17	2
E0S35	33	20	3	30	25	2
	21	17	3	27	20	2
	25	12	3	25	25	3
	27	11	4	28	25	3
	22	15	4	17	18	2
	24	14	3	40	25	2
	35	30	10	35	35	3
	30	20	5	32	25	3
	24	21	5	36	28	2
	38	24	3	22	15	2
	20	10	3	15	16	2
	—	—	—	17	18	3
W5N25	18	17	4	16	18	2
	24	15	3	22	17	3
	20	14	4	15	20	2
	22	14	3	20	16	2
	23	8	3	18	15	2

**Table 3.** Debitage Data, Kitchen Garden Site (NYSM 1305) (continued)

Unit No.	Hard Hammer			Soft Hammer		
	Length (mm)	Width (mm)	Thickness (mm)	Length (mm)	Width (mm)	Thickness (mm)
E0S10	30	28	10	26	23	2
	26	25	9	20	26	3
	15	11	6	18	15	2
	33	18	2	13	11	2
	24	9	5	—	—	—
	15	14	2	—	—	—
W30S50	58	39	9	47	45	5
	38	22	8	28	27	3
	—	—	—	25	25	2
E0S25	26	24	6	20	15	2
	28	19	4	25	26	3
	23	15	2	22	20	2
	23	11	2	10	13	2
	65	54	4	11	10	2
W5N0	40	45	11	35	34	3
	18	11	3	30	25	3
	22	14	2	34	25	4
	17	10	3	28	32	3
	20	21	5	20	30	2
	25	17	3	20	22	3
	12	7	3	14	12	2
	14	8	4	18	22	2
	—	—	—	20	15	3
	—	—	—	20	17	2
W15N15	—	—	—	22	11	2
	20	21	3	—	—	—
	25	20	3	—	—	—
	34	18	3	—	—	—
E0N25	38	25	4	15	24	3
	32	20	3	30	20	4
	33	15	3	15	25	3
	30	28	4	20	11	2
	28	15	3	—	—	—
	20	20	4	—	—	—
	28	18	3	—	—	—
	27	11	4	—	—	—
	17	14	3	—	—	—
E0S15	30	18	2	20	20	2
	26	16	2	25	20	3
	29	28	4	28	25	3
	—	—	—	20	11	3
	—	—	—	21	18	2
W10N25	—	—	—	20	20	3
	42	6	4	35	44	4
	35	20	4	18	20	2
	—	—	—	30	26	2
	—	—	—	24	20	2
E0S5	23	16	3	19	18	3
	16	11	3	20	13	2
	17	9	3	18	18	2
	24	12	2	—	—	—
W20N15	—	—	—	28	33	5

## Acknowledgments

The author wishes to thank Auringer-Seelye Chapter NYSAA members Jill McMahon, Carol Weatherwax, and Richard F. LaBrake for their participation in the excavation, and Constance J. Carroll for her cataloging of the artifacts.

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# The Old Kakiat Trail Rockshelter

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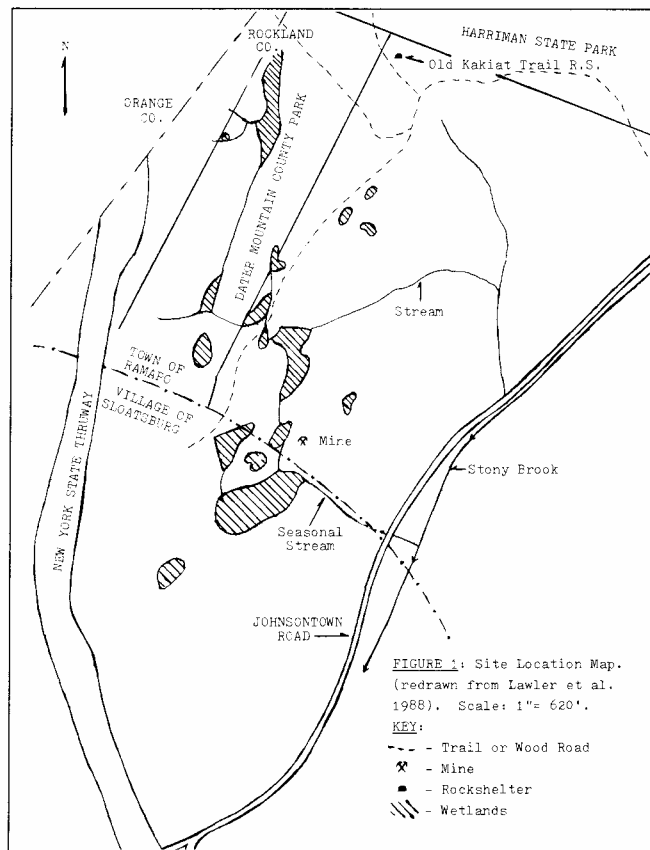
*This study documents a small rockshelter in the Hudson Highlands. Extensively pothunted in the past, the site was investigated in advance of a proposed development in the area. Archaeological testing of the shelter revealed evidence that it was a procurement processing site that was occupied briefly during the Late Archaic Period. A model of the site's utilization is presented together with a listing of floral and faunal resources present in the adjacent catchment area.*

## Introduction

The Ramapo Mountains, a series of steep northeast-to southwest trending ridges, extend from Orange and Rockland counties in New York through Bergen and Passaic counties in New Jersey. Long considered to be uninviting marginal land, these mountains have been occupied by Native American bands and their descendants from 10,000 B.C. to the present. These rugged forested mountains contain natural lakes and ponds, fast flowing rivers and streams, wetlands, and abundant plant and animal life.

Current knowledge of prehistoric life in the Ramapo Mountains is meager when compared to the Hudson Valley in New York or the Upper Delaware Valley in New Jersey. The lack of adequate archaeological data from this region can be attributed to several factors: Euro-American settlement and development, a lack of professional archaeological investigations, and the destruction of sites by untrained relic collectors. Much of the rich archaeological remains from the Ramapos lie unstudied in private collections and in dusty museum cases and storage areas. For the most part, the sites of prehistoric occupation remain unreported, undocumented, and unpublished.

Since the mid-1980s, however, archaeological research into the prehistory of the Ramapo Mountains has accelerated as a result of state and federal mandated environmental studies. Cultural resource surveys, which are required prior to the start of construction or development work, have been conducted in areas slated for commercial or residential development, highway and sewer-line construction, and electric power and gas line right-of-way installation. These archaeological surveys have resulted in the rediscovery of previously excavated but unreported sites as well as the discovery of new sites. This paper presents the results of one such cultural



**Figure 1.** The Old Kakiat Trail Rockshelter Site location map (redrawn from Lawler et al. 1988).

resource survey. This report documents a small rockshelter which was occupied by prehistoric people, delineates what was learned about human lifeways at the site, and attempts to stimulate further research into the prehistory of the Ramapos.

## Site Description and Location

The Old Kakiat Trail Rockshelter is located in the Town of Ramapo, Rockland County, New York, about 0.5 mi north of Johnsonstown Road (Figure 1). The rockshelter lies within a private undeveloped wooded tract adjacent to Harriman State Park and Rockland County's Dater Mountain Nature Park. A private residential subdivision is planned for the property.

The rockshelter is named the "Old" Kakiat Trail Rockshelter because this former hiking trail lies a short distance below and west of the site. The Kakiat Trail has been relocated, and the new route presently extends through the area at a considerable distance west of the site. The rockshelter is formed by a natural glacier-deposited boulder positioned on a steep sloping hillside with an overhang that provided cover for human occupation and use.

### Environmental Setting

The rockshelter lies within the Hudson Highlands region, which is a part of the Reading Prong of the New England Uplands physiographic province (Schubert 1968:100, 102; Wolfe 1977:227). The Hudson Highlands area is composed principally of granitoid-gneissic ridges and mountains (Fisher et al. 1970). The area surrounding the rockshelter is heavily wooded, and the topography can be characterized as rugged. There are many steeply inclined rocky slopes and extensive rock outcrops nearby. The local elevations range from approximately 425 ft above mean sea level (AMSL) along Johnstown Road south of the site to 900 ft AMSL on Daters Mountain north of the site.

The entire New York Hudson Highlands region was covered by glacial ice during the last episode of the continental glaciation known as the Wisconsin. The glacial process scraped and scarred the hilltops. As the glacier advanced, it scoured the ridges and left bare rock or a thin mantle of soil, while the valleys and side slopes of the ridges were filled with deposits of sand, gravel, and boulders. These debris deposits blocked streams to form glacial lakes, ponds, and swamps. Deglaciation of the highlands began about 15,000 years ago. As the glacial ice sheet melted and receded, a tremendous amount of meltwater flowed south from its leading edge, and gravels and sediments were deposited throughout the region. The effects of the last glacier are visible on the landscape in the area of the rockshelter; bare outcrops of bedrock, glacial erratics, and boulders are present in abundance on the surface of the land.

The physical structure of soils is an important factor in the settlement and subsistence activities of human groups. Characteristics such as soil texture, permeability for drainage, corrosion potential, and acidity determine the type of vegetation that can grow in an area. The predominant soil associations in the area of the rockshelter are Hollis and Chatfield sandy loams. These soils are described as shallow, excessively drained to well-drained sandy loam soils which developed in glacial till with low lime content and dominated by granitic materials (Goodman 1970:44; USDA 1990).

The flora and fauna near the rockshelter are similar to that of other rugged mountainous areas located nearby. Although much of the site is composed of steep slopes and rugged terrain, the presence of running streams and mountain-

top swamps provide an environment diverse in animal and plant species. The Munsee-speaking Indians, who were members of the Lenape or Delaware Indian group, inhabited the area prior to European settlement and hunted a great variety of animals for food: deer, bear, beaver, raccoon, opossum, skunk, wolf, fox, muskrat, squirrel, woodchuck, bobcat, lynx, rabbit, mice, turtles, tortoise, and snake. In addition, they hunted and trapped birds such as turkeys, ruffed grouse, blue heron, and the passenger pigeon (Salomon 1982:36). In spite of the local extinction of some species through hunting, lumbering, and encroaching development, all of the above fauna are listed as present or possibly present in the vicinity of the rockshelter with the exception of the wolf, lynx, and passenger pigeon (Lawler et al. 1988:Tables 1, 3).

Table 1 is a sample of the edible vegetation found near the site (Hanks 1988:18-25). A review of the seasonal gathering times for the 42 species recorded will clearly show that food plants were available throughout the year. Tantaquidgeon (1977) confirmed that 15 of the plant species were utilized for food by the Delaware and related Algonkian Indians, and Weiner (1980) related that 14 of the species were used by the neighboring Iroquois.

Undoubtedly, native food resources were harvested by individuals or small bands passing through the area. In addition to the available wild edibles, early records indicate that varieties of corn meal were prepared by the Indians for use on long journeys. John Heckewelder, an eighteenth-century Moravian missionary to the Indians, said that their corn meal was the most nourishing and durable of their corn foods, and that with but a little bit of this food, they set out on long journeys. Variations on this basic hominy, or "traveling food," included the addition of cooked meat or various kinds of nut meats (Tantaquidgeon 1977:58-59). Besides the "traveling food" and any hunting and fishing that could be accomplished, stores of dried and smoked meat, fish, clams, oysters, preserved edible plants, and various wildflowers were used to sustain the people when wild edibles were either unavailable or not readily procurable (Salomon 1982:38).

The rockshelters in the area could have been important in what Newcomb (1956:21) termed "the subsistence cycle or annual round." Newcomb (1956:22) stated that in the spring and summer, the Indians congregated in their small villages, gardening and fishing. After the harvest, the villages were deserted as families scattered to their hunting territories to procure deer and bear until February or March. In later historic times, the individual families went to their sugaring grounds where the women collected and boiled down the maple sap, while the men continued to hunt. In spring they moved to their villages, planted their crops, and began the cycle all over again (Newcomb 1956:22).



**Table 1.** Seasonal Gathering Times for Edible Wild Plants in the Project Area (after Peterson 1977).

	Spring	Summer	Fall	Winter
* <i>Acer</i> spp., Maples	■			■
* <i>Allium</i> spp., Wild Onions	■	■	■	■
<i>Amelanchier</i> spp., Juneberry		■		
* <i>Arisaema triphyllum</i> , Jack-in-the-Pulpit	■		■	■
<i>Aronia arbutifolia</i> , Red Chokeberry		■		
<i>Asclepias</i> spp., Milkweeds	■	■		
* <i>Betula</i> spp., Birches	■			
* <i>Carya</i> spp., Hickories			■	
* <i>Castanea dentata</i> , American Chestnut			■	
<i>Claytonia</i> spp., Spring Beauty	■			
* <i>Corylus</i> spp., Hazelnuts		■		
* <i>Fagus grandifolia</i> , American Beech			■	
<i>Fragaria</i> spp., Strawberries		■		
<i>Gleditsia triacanthos</i> , Honey Locust		■		
<i>Impatiens</i> spp., Jewelweed	■	■		
* <i>Juglans nigra</i> , Black Walnut	■		■	
<i>Lactuca canadensis</i> , Tall Lettuce	■	■		
<i>Medeola virginiana</i> , Indian Cucumber-Root	■	■	■	
<i>Oxalis</i> spp., Wood Sorrel	■	■	■	
* <i>Pinus strobus</i> , White Pine	■			
* <i>Platanus occidentalis</i> , Sycamore	■			■
<i>Podophyllum peltatum</i> , Mayapple		■		
<i>Polygonatum</i> spp., Solomon's Seal	■	■	■	■
<i>Prunus</i> spp., Cherries/Plums		■		
<i>Pteridium aquilinum</i> , Bracken Fern	■			
<i>Pyrus</i> spp., Crabapples			■	
* <i>Quercus</i> spp., Oaks			■	
<i>Ribes</i> spp., Currants/Gooseberries		■		
<i>Rosa</i> spp., Wild Roses		■		
<i>Rubus</i> spp., Raspberry/Blackberry	■	■		
<i>Sambucus canadensis</i> , Common Elderberry		■		
<i>Smilacina racemosa</i> , False Solomon's Seal	■			
<i>Smilax</i> spp., Catbriers	■	■	■	■
* <i>Symplocarpus foetidus</i> , Skunk Cabbage	■		■	■
<i>Tilia americana</i> , American Basswood	■			
* <i>Trifolium</i> spp., Clovers	■	■		
* <i>Tsuga canadensis</i> , Eastern Hemlock	■			
<i>Typha</i> spp., Cattails	■	■	■	■
<i>Umbilicaria</i> spp. and <i>Gyrophora</i> spp., Rock Tripe	■	■	■	■
* <i>Vaccinium</i> spp., Blueberries		■		
<i>Viola</i> spp., Violets	■			
<i>Vitis</i> spp., Wild Grapes		■	■	

\* Denotes food reserves available for off-season consumption.

Rockshelters were used by small groups of Indians for shelter while hunting animals and gathering edible wild foods. One author suggested that

one use of the rock shelters, particularly those on the lower slopes of the Ramapos, where sugar maples were and still are abundant, may have been used as seasonal sugar camps [Salomon 1982:38].

The discovery of a 10-gal clay pot in a rockshelter near Suffern is offered in support of this argument. However, it must be noted that there is no evidence to indicate that the Indians made or used maple sugar in prehistoric times, although they undoubtedly did in the Historic Period (Kraft 1986:141).

We can piece together many of the food-gathering activities of the Delaware people who occupied the area before the arrival of the Europeans through historic reports, oral history, and archaeological endeavors, but we can rely only on archaeological evidence to reconstruct the subsistence pattern of the Woodland, Archaic, and Paleo-Indians who came before them. The flora and fauna of the area, as described above, could have supported a transient population for short or extended occupations.

### Archaeological Investigation

In 1973, historian Gardner Watts of Suffern, New York, recorded the existence of a huge boulder that served as an "Algonquin shelter" just off the white-marked Kakiat Trail not far from the scenic vista in Harriman State Park known as Almost Perpendicular (Watts 1973:84). According to Watts (personal communication, 1989), he discovered this Indian rockshelter about 20 years ago while on a hike through the area. Watts observed the presence of a sifting screen within the rockshelter, which indicated that it was being excavated by a relic collector at that time. This rockshelter, which we now refer to as the Old Kakiat Trail Rockshelter, is situated about half way up a steeply sloping and bouldery hillside about 37 m (120 ft) northeast of the old trail (Figure 2). The land surrounding the shelter is densely wooded and extremely rocky.

The rockshelter is formed by a large detached granite boulder resting on and propped up by two other boulders. This inclined boulder provides ample shelter for human groups. The shelter measures 4.5 m (15 ft) in length, 6 m (20 ft) in depth, and 2.2 m (7 ft) in height at the drip-line. The roof of the shelter slopes downward from the front to the rear, but the living floor is flat and earth-covered (Figure 3). The shelter faces south-southwest 200°, and a small wetland area is located approximately 60 m (200 ft) to the south and below the shelter. There is a large bedrock outcrop directly in front of the shelter which provides additional protection and coverage for the site.



**Figure 2** The Old Kakiat Trail Rockshelter. View looking east (photograph by E.J. Lenik, 1989).

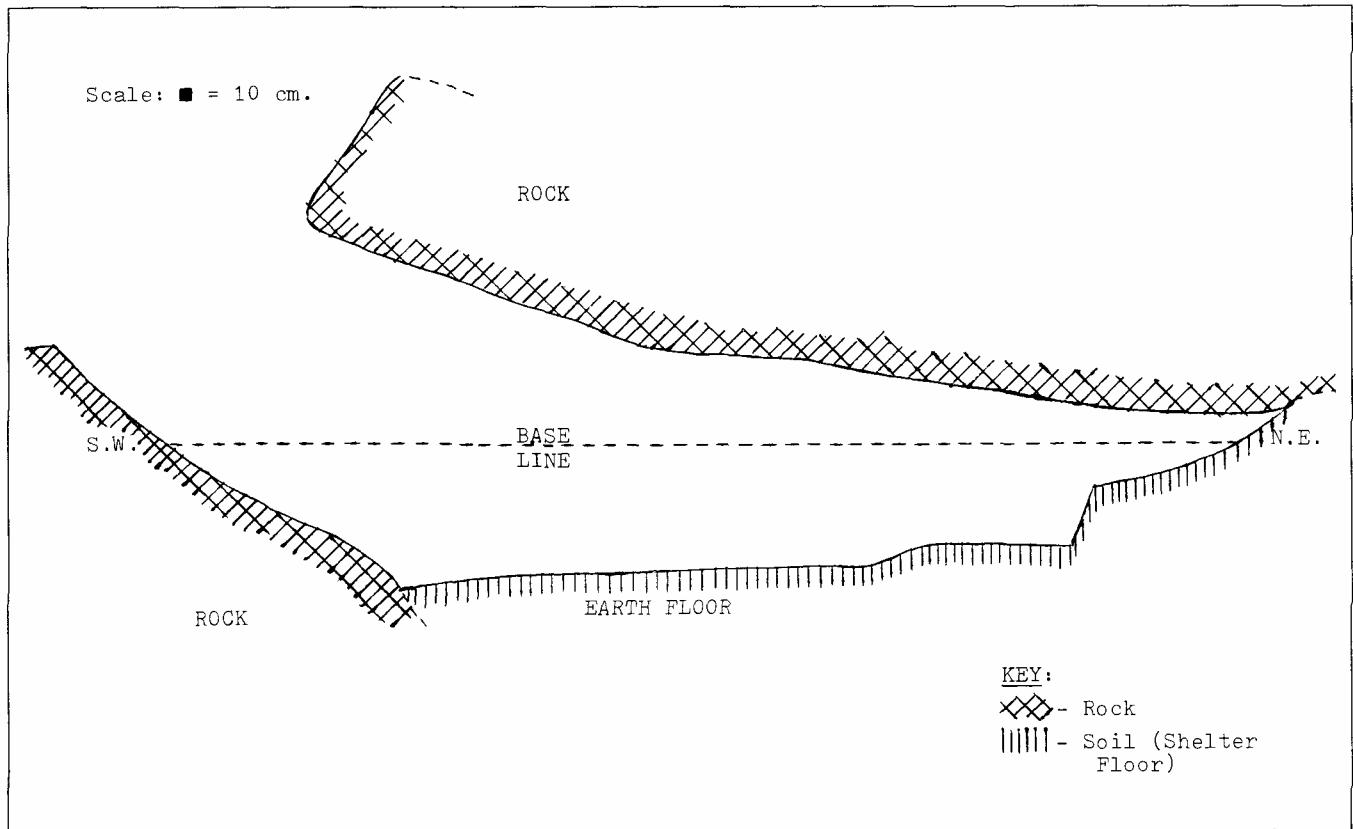
This rockshelter has been extensively utilized by modern day campers. The interior and exterior surfaces of the boulder contain spray-painted graffiti, and cans and bottles were present on the surface nearby. Also a rock wall has been constructed along the west side of the shelter at its entrance. According to a local informant, a wood-burning stove and chimney were present at one time within the shelter.

Our visual examination of the rockshelter floor revealed that the site has been extensively excavated and pothunted. The pothunting activity is particularly evident at the rear of the shelter, where approximately 20-30 cm (8-12 in) of soil has been excavated by relic collectors. Our attempts to locate these collectors and examine their findings has been unsuccessful, although a projectile point tip and a black chert flake, found on the surface within the shelter, have been presented to us for study and analysis (Focht, personal communication, 1989; Zingone, personal communication, 1989).

Four archaeological test units, 50 cm x 50 cm (20 in x 20 in) each in size, were excavated within the Old Kakiat Trail Rockshelter (Figure 4). The test excavations within the rockshelter confirmed the previous reports as well as our own observations that the site had been previously pothunted. The soil layers in Excavation Units 1, 2, and 4 were clearly mixed, mottled, and for the most part, loosely packed. They contained bone fragments, charcoal, flakes, and two broken stone tools of prehistoric origin along with fragments of modern glass.

A total of 103 artifacts were recovered from the Old Kakiat Trail Rockshelter, including 59 fragments of charcoal, 1 tooth, and 3 pieces of glass. The cultural material was identified, its context was determined, and the debitage or waste flakes were measured and sorted into categories according to size to aid in the interpretation of lithic technologies and processes.

There are 11 small flakes in the collection (15 mm or 5/8 in in length or less), 8 medium-size flakes (16-25 mm or 5/



**Figure 3.** Cross-section of the Old Kakiat Trail Rockshelter.

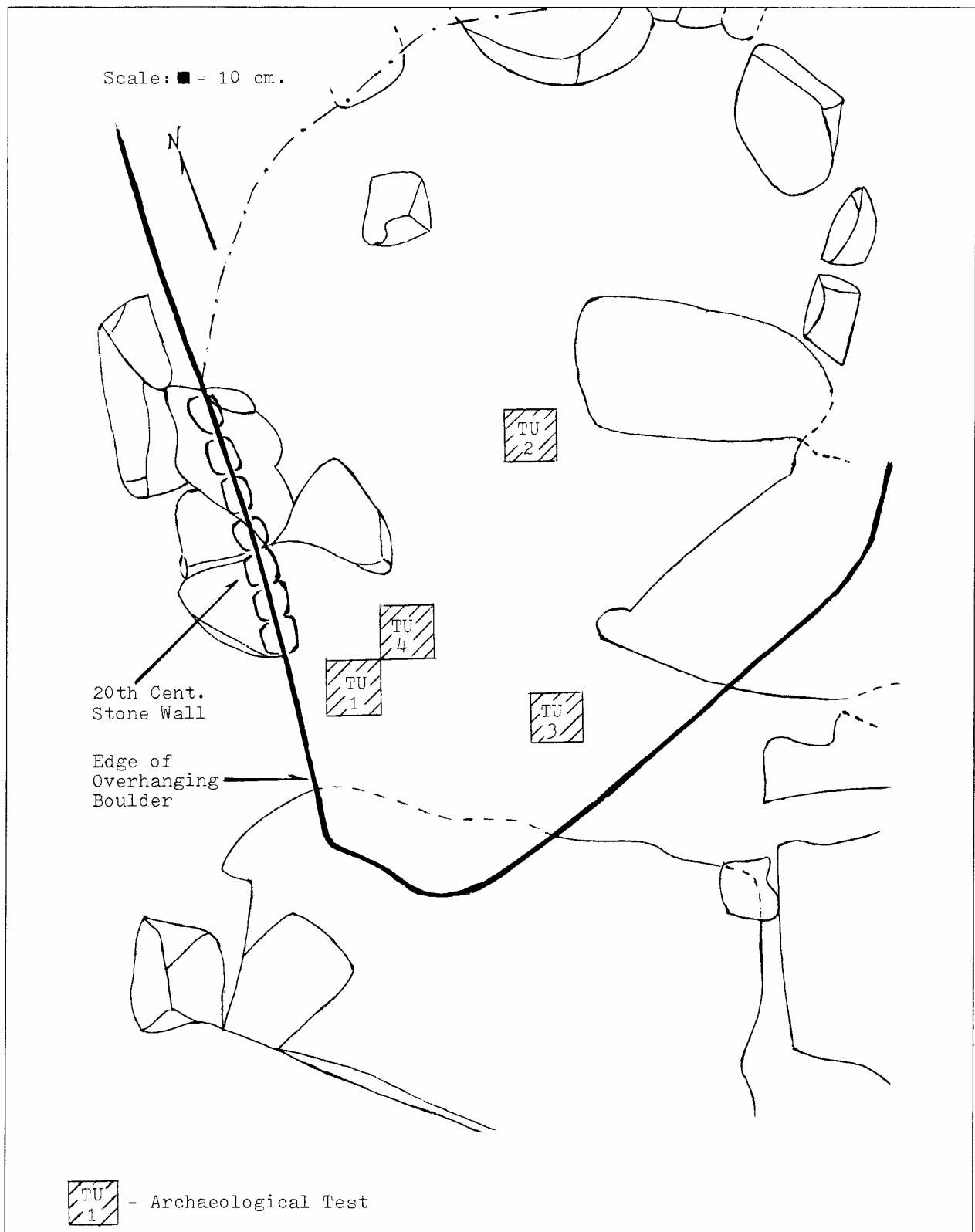
8-1 in in length), and 6 large flakes (26 mm or 1 in or longer). Two of the large flakes exhibit some cortex. The debitage recovered from the site consists of primary, secondary, and thinning flakes. Although this collection is small, the lithic evidence suggests that chipped stone tools were made, modified, or resharpened at the site.

Twenty-two of the flakes and fragments consisted of cryptocrystalline materials black or gray in color. Two argillite flakes and one quartz flake were found. Several of the gray chert flakes are grainy in texture and low in quality. We note that similar lithic materials were found at three prehistoric sites within the Monksville Reservoir in Passaic County, New Jersey (Lenik and Ehrhardt 1986) and at the Potake Pond Site in the Town of Ramapo, New York (Lenik 1987:30-34). Such low quality cherts are plentiful in cobble form along stream banks and gravel beds in the region and were extensively utilized by prehistoric toolmakers (Lenik 1991).

Two projectile point tips, one made from argillite and the other from chert, were recovered from the site, as was a triangular biface that has somewhat rounded tangs and a missing tip. Although these specimens are broken, they can be characterized as thick. They do not appear to be projectile

points of the Late Woodland Period, which are generally triangular and thin (Ritchie 1971:31, 34). Based on this admittedly meager evidence, we tentatively date these specimens to the Late Archaic Period.

In summary, the archaeological investigation of the Old Kakiat Trail Rockshelter indicates that the site was occupied by small groups of people probably during the Late Archaic Period (i.e., from 3500 to 1000 B.C.) and perhaps later in time as well. The evidence suggests that the Indians who occupied the site were hunters and gatherers who had stone-tipped projectiles or weapons. They hunted deer, birds, and other animals in the area, and processed, cooked, and consumed some of the game at the site. The rockshelter is situated high above, but close to, several wetlands located to the south. These wetland areas would have been an important source of food and raw materials for these hunters and gatherers because they serve as breeding and feeding areas for amphibians, turtles, deer, small mammals, waterfowl, and other birds. The wetlands and seasonal streams would also have been a source of potable water, wood, grasses, and other raw materials such as cobble chert. Finally, the data indicate that stone toolmaking and/or repair was also an important activity at the site.



**Figure 4.** Plan drawing of Old Kakiat Trail Rockshelter.

## Concluding Observations

The functionally limited nature of the site's artifact assemblage and its upland location strongly support our interpretation that the rockshelter functioned as a temporary camp used by hunters and gatherers who operated out of longer term seasonal or semi-permanent habitation sites located elsewhere. It is likely that the Old Kakiat Trail Rockshelter was occupied for brief periods between late summer and early winter.

In 1909, archaeologist Max Schrabisch reported on the excavation of four rockshelters which were located to the north of the Old Kakiat Trail Rockshelter. These sites are on Mine Hill (now Dater Mountain), Pound Mountain, and in adjacent Orange County. In the Pound Mountain Rockshelter, Schrabisch reported finding flakes, bone fragments and three arrowheads, while at the Mine Hill Site he found flakes firecracked rock and a hearth (Schrabisch 1909:158-159).

At the Tuxedo Rockshelter, Schrabisch recovered a few broken arrowheads and flakes. However, at the Horstable Rockshelter he found a large number of pottery fragments, hundreds of flakes, bone, fire-cracked rock, 2 hearths, scrapers, 10 "notched" projectile points, and 7 triangular points (Schrabisch 1909:160, 164). These data indicate that Horstable Rock was occupied by Indians during the Late Archaic and Woodland periods or approximately from 3500 B.C to A.D. 1700. In sum, Schrabisch concluded that these rockshelters were used by hunters, often miles from their "lodges," which were located in the valleys, where they "fashioned a few arrowpoints" and "feasted" on their game but never lingered very long (Schrabisch 1936:29-38).

While the Schrabisch rockshelter data generally support our conclusions, his interpretation is too simplistic when viewed from our current state of knowledge. Our data from the Old Kakiat Rockshelter Site and elsewhere in the region indicate that Native American bands had a more diverse subsistence strategy (Lenik 1987; Lenik and Ehrhardt 1986; Lenik and DuPont 1988; Lenik, DuPont, and Gibbs 1988).

We present the following model of utilization of the Old Kakiat Trail Rockshelter. The shelter can be characterized as a procurement-processing site that was occupied by small groups of people who stayed briefly. This interpretation is based on its small size and the absence of a substantial midden deposit. From the rockshelter, the hunting and gathering parties made forays into the surrounding area in search of specific resources. The adjacent catchment area had abundant floral and faunal resources from which to obtain food and other subsistence supplies. The processing and initial consumption of these food resources took place at the rockshelter. Later, any residual or processed resources such as meats, nuts, and other items were transported back to a main

base camp for storage and later final consumption. Stone toolmaking and repair was an ongoing activity at the site.

Our research on rockshelters in the Ramapos has revealed that much remains to be learned and documented regarding these sites. Further research is needed to address such questions as what cultural groups occupied these sites and when, in what season or seasons of the year were they utilized, what resources were being harvested, how long did they stay, where were the base camps located, and what is the nature of these sites? Our study of the ecology of the Ramapos as well as the presence of numerous rockshelters that were occupied by Indian bands clearly indicates that these mountains were not marginal uninviting lands, but a hospitable area supporting human life for thousands of years.

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# Iroquois Lanceolate Projectile Points

Robert A. Navias, Lewis H Morgan Chapter, NYSAA

*A recent study of more than 4,000 Late Woodland projectile points in the Rochester Museum & Science Center's collections has produced unanticipated results. These points are from site collections from 13 Seneca and one Cayuga village of prehistoric, contact, and historic occupations. This work, combined with a review of the literature, shows that the Madison point classification needs to be updated when applied to Iroquois projectile points. Three major and two minor point forms were observed.*

*Frequency of occurrence data for all type forms are presented. Metric data for lanceolate points, the second most common form, are included, as are observations, hypotheses, and conclusions.*

## Introduction

Small lanceolate-shaped projectile points made from pressure-flaked Onondaga chert have been found by the author on several Seneca village sites in western New York (Figure 1). Ritchie (1961:33-34, Plate 16) described Iroquois projectile points which are triangular in form as Madison; the point edges are straight, slightly incurvate, and slightly excurvate. Examination of Ritchie's illustrations shows three distinct point forms, one of which is lanceolate. In a discussion with Charles F. Hayes III, Research Director at the Rochester Museum and Science Center, the author mentioned his observations and ideas about Seneca projectile points. At Hayes' suggestion, the author formalized his ideas into a research proposal, which was accepted by the Rochester Museum & Science Center. This paper is the result of the research that followed.

## Literature Review

Scully (1951:14) published a description and sketch of Madison points from Middle and Upper Mississippian sites in Illinois, Wisconsin, and Missouri. This description, in part, states:

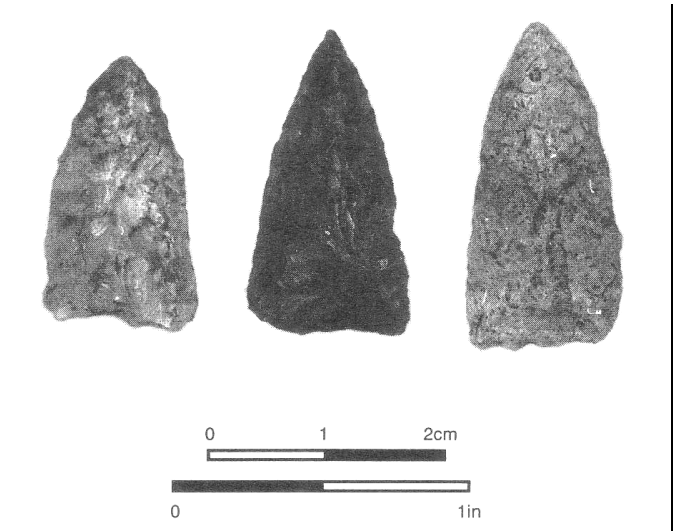
**General Description:** small triangular points

**Size:** ranges from 1/2 to 2 3/8 inches, average - 1 in.

**Proportions:** dimensions vary in that width of base is between 1/2 and 3/4 length of point.

**Shape:** body - triangular, edges may be straight, concave, or convex.

**Base:** may be straight, concave, or convex.



**Figure 1.** Typical lanceolate points from Seneca sites. Left, Power House; center, Dann; right, Cameron (after Niemczycki 1984).

No statistical data were published, nor is there any indication of sample size, statistical parameters for length, width, or thickness, nor is there any frequency of point shapes.

Scully's (1951:14) Madison point description was superseded by later workers in the Mississippi Valley and in the mid-continent region. Bell (1958:48, Plate 24) described Maud points. Bell (1960:44, Plates 22, 27, and 54) also described Fresno and Hamilton points, and Perino (1971:92, Plate 46) described Shetley points.

Ritchie applied Scully's Madison point classification to Iroquois projectile points from New York. Ritchie (1961:33, 88) used a sample of 100 points from the Richmond Mills Site to represent all New York Iroquois points, and stated:

**Size:** A New York sample of 100 points from a single prehistoric Iroquois site in western New York ranged from 3/4 to 1 9/16 of an inch with a majority falling between 1 and 1 1/4 inches.

**Proportions:** These vary from about as long as wide in the nearly equilateral specimens to twice as long as wide in the isosceles triangles, with most of the latter around 1 1/2 times as long as broad.

**Shape:**

straight edges	75%
slightly incurvate edges	8%
slightly excurvate edges	17%

Wray et al. (1987:98-105, 206-207; Wray et al. 1991:104-108, 297-300) described the projectile points from four Seneca villages, the Adams, Culbertson, Tram, and Cameron sites (Table 1). These points show six shapes.

### Methodology

The present work used all the Seneca projectile points from the Rochester Museum & Science Center's collections from the Richmond Mills, Culbertson, Adams, Tram, Cameron, Factory Hollow, Dutch Hollow, Cornish, Warren, Steele, Powerhouse, Marsh, and Dann sites (Figure 2). The writer's small collections, particularly from the Cameron Site, were also used. These collections yielded data on 3,840 Seneca projectile points from prehistoric and early historic Seneca sites occupied from c. A.D. 1550 to 1675 (Figure 3). In addition, 571 projectile points in the RMSC collections from the Genoa Fort Site (Cayuga) c. A.D. 1610 to 1625 (Sempowski, personal communication, 1993) were also studied to provide non-Seneca data for comparison.

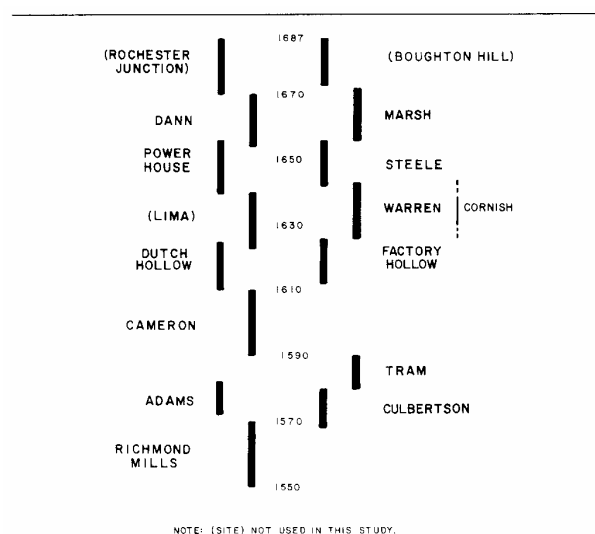


Figure 3. Seneca site sequence (after Wray et al. 1987).

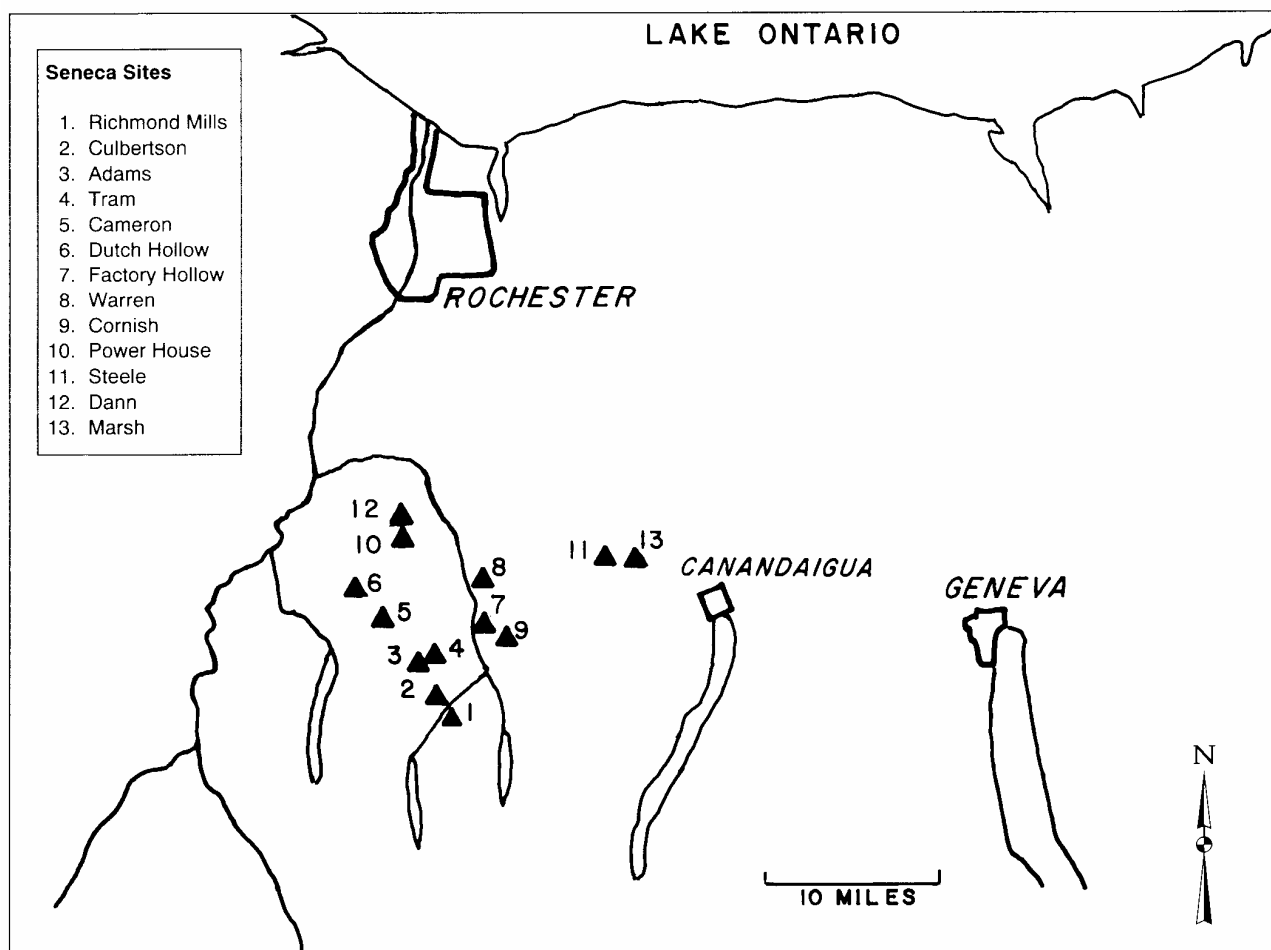


Figure 2. Location map for sites mentioned in the text.



Each projectile point was assigned to a blade shape using the scheme adopted by Wray et al. (1987:98). This scheme uses six blade shapes (Table 1) and worked well until a pentagonal blade shape was identified during the research. The classification scheme was then modified to include all seven blade shapes.

The numbers of each blade shape were tabulated for each site and for the total Seneca and Cayuga point samples (Table 2). The base characteristics of Seneca lanceolate points were also tabulated. The measurements of lanceolate points were taken from the Rochester Museum & Science Center records wherever possible. Lanceolate points were measured where needed. The length, width, and thickness of each point were measured with calipers reading to 0.01 cm and recorded to 0.1 cm. All measurements were tabulated.

**Table 1.** Point Shapes from the Adams, Culbertson, Tram, and Cameron Seneca Village Sites (after Wray et al. 1987, 1991).

Name	Number	Percent
Straight	245	64
Convex	52	14
Concave	33	9
Convex/straight	28	7
Concave/straight	19	5
Convex/concave	4	1
Total	381	100

**Table 2.** Point Type Distributions.

Point Type	Seneca		Cayuga	
	Number	Percent	Number	Percent
Triangular	2,558	66.6	232	45.4
Cusped	484	12.6	47	9.2
Lanceolate	544	14.2	170	33.3
Hybrid				
Lanceolate/triangular	71	1.8	5	1.0
Cusped/triangular	157	4.1	50	9.8
Cusped/lanceolate	22	0.6	7	1.4
Pentagonal	4	0.1	0	0
Total	3,840	100.0	511	100.0
Base Shapes				
Straight		35.0		48.0
Concave		65.0		52.0
Total		100.0		100.0

As the work progressed, questions arose about Ritchie's work on the Richmond Mills projectile points. This collection was reexamined, and the results are shown in Table 3.

### Statistics and Analysis

Seneca projectile point blade shapes are shown in Figure 4. The statistical summary of blade shape frequency is shown in Table 2.

A new terminology has been introduced to identify the blade shapes. This was done for three major reasons: the previous terminology (Madison) needs updating; the new terminology is primarily descriptive; and the new terms have little resemblance to the previous terminology. The author proposes that the Seneca points shall be classified:

1. Triangular: straight-sided or nearly straight-sided points whose side edges form an acute angle
2. Cusped: points whose side edges curve inward from base to point
3. Lanceolate: points whose side edges curve outward from point to base
4. Hybrid: points which are a combination of two of the three shapes listed above:
  - a. Lanceolate and triangular
  - b. Cusped and triangular
  - c. Cusped and lanceolate
5. Pentagonal

**Table 3.** Richmond Mills Point Data.

Point Shape	This Work		Ritchie 1961	
	No. Points	Percent	No. Points	Percent
Straight	307	49.3	75	75.0
Convex	171	27.5	17	17.0
Concave	71	11.4	8	8.0
Convex/straight	27	4.3		
Concave/straight	35	5.6		
Convex/concave	12	1.9		
Total	623	100.0	100	100.0

### Statistics

Mean length	2.7 cm
Standard deviation	0.6 cm
Mean length/width ratio	1.6
Standard deviation	0.4
Mode, length/width ratio	1.5

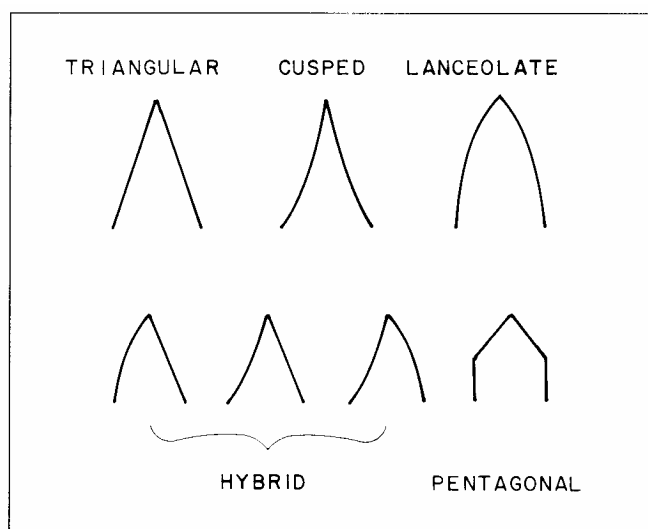


Figure 4. Projectile point blade shapes.

A distribution curve was plotted for all Seneca lanceolate point lengths (Figure 5). This plot shows that the lanceolate point length frequency is bimodal. That is, there are two groups of lanceolate points represented in the sample. The larger group has a modal length of 2.2 cm, while the smaller group has a modal length of 4.2 cm.

The large group of points, about 95% of the sample, with the modal length of 2.2 cm represents points used for general utility, such as hunting. The small group of points, about 5% of the sample, with a modal length of 4.2 cm, appears to have been used for a special purpose. This will be discussed in a later section. The new data on the Richmond Mills points shown in Table 3 differs so markedly from Ritchie's data that it is apparent that large samples and statistical methods give far more representative results than Ritchie achieved with the limited sample available to him at that time. Ritchie's point sample does not represent the Richmond Mills point population, nor does it represent the Seneca point population. It is extremely doubtful that Ritchie's Richmond Mills point sample can represent Iroquois projectile points from the entire state of New York.

#### Lithics

Almost all the Seneca lanceolate points studied during this research were made from Onondaga chert typical of western New York sources. Twelve points were noted which were made from non-local materials from unknown sources. These points were longer than the mean length. The unknown materials consisted of a high grade blue-gray chert (possibly from Flint Ridge, Ohio), 3 points; a very pale, almost cream-colored chert, 4 points; dark brown chert, 2 points; and red chert (possibly from the Reading Prong, Pennsylvania), 1 point.

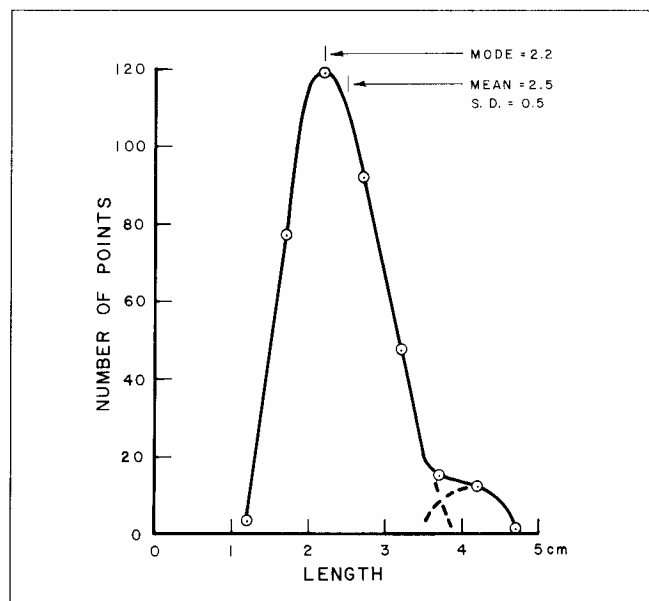


Figure 5. Lanceolate point lengths.

#### General Observations

- Both triangular and lanceolate points were observed in the site collections with lengths significantly longer than the mean length. Where provenience is known, the long points came from burials. Cameron (personal communication, 1993) noted that these long points were only found in burials of mature males who were in his opinion, warriors. Cusped and hybrid points are not found with lengths which differ significantly from the mean. This evidence suggests that the longer points were used for ceremonial purposes.
- DeAngelo (personal communication, 1993) has suggested that the lanceolate points were used as knives, not projectile points. Several factors mitigate against this idea. First, the writer has found no evidence of wear analysis studies to confirm the use of lanceolate points as knives. Second, the only sample of a chert tool from a Seneca site hafted so that it could be used as a knife of which the writer is aware is from the Adams Site and is shown by Wray et al. (1987:Figure 347). The chert biface is an elongate oval 11.5 x 4.2 cm. Third, long lanceolate points which would make the best knives are thin, narrow, and easily snapped. Although broken lanceolate blades could have been resharpened, no examples of broken blades have been found in the Seneca site collections. And fourth, the frequency of long lanceolate points increases during the second half of the seventeenth century on Seneca sites at the same time that chert points were decreasing on these sites due possibly to the increased use of firearms and the



**Figure 6.** Lanceolate points from the Dann Site. Lengths greater than 4 cm.

- influx of European trade goods which included greater numbers of iron or steel knives.
3. Although Owasco site collections were not available for study when this work was done, the literature on the Owasco was read and the reports on the Owasco sites were consulted to see if Levanna point forms might represent antecedent forms to those found on Iroquois sites. References included Ritchie (1944: Plates 24, 26, 32, 38; 1961:Plate 16; 1965:Plate 92) and Ritchie and Funk (1971:Plates 99, 110, 151, 158, 175). The plates in these references show photographs of 129 Levanna points which have the following shapes (Figure 4):

	Points	Percent
Triangular	75	57
Cusped	26	20
Lanceolate	24	19
Hybrid	4	3
Total	129	100%

Since Iroquois points are smaller than Levanna points but have very similar shapes, the writer is tempted to suggest that Levanna and Iroquois points may represent a continuum of points of decreasing size but with the same point shapes from early Owasco to Historic Iroquois.

4. Iroquois triangular, cusped, and lanceolate points were generally well made by pressure flaking. The hybrid points are usually not so well made, although the hybrid points are serviceable as projectile points. The relatively small numbers of hybrid points suggest two hypotheses. First, the hybrid points may be knapping mistakes where the maker finished one edge but failed to finish the second edge in the same style as the first. Second, the hybrid points may have been the learning experiments of juvenile males who were learning to knap but were not yet very skillful.

**Table 4.** Lanceolate Point Statistics.

	Observed Sizes (cm)		Statistical Parameters (cm)		
	Max	Min	Mode	Mean	S.D.
<b>Seneca</b>					
Length	6.5	1.3	2.2	2.5	0.5
Width	2.5	1.1	1.7	1.1	0.5
Thickness	1.0	0.3	0.4	0.5	0.1
Length/width	3.4	0.6	1.2	1.5	0.5
Sample size: 371 points					
<b>Cayuga</b>					
Length	3.3	1.4	2.0	2.3	0.5
Width	2.0	1.1	1.6	1.6	0.2
Thickness	0.7	0.3	0.4	0.4	0.1
Length/width	2.8	0.9	1.2	1.4	0.4
Sample size: 40 points					

### Summary and Conclusions

The data on the projectile points from 13 Seneca and one Cayuga site have been presented and show the size, shape, and frequency of occurrence of the projectile points from these sites. The traits observed are found on both Seneca and Cayuga material; thus, the observed traits are at least western Iroquois, not just Seneca.

The evidence presented indicates that the Madison point classification used by Ritchie (1961:33-34) is in need of updating because it does not adequately describe Iroquois projectile points from western New York. An Iroquois projectile point classification is proposed. This classification has three major and two minor subclasses. These are:

Major Subclass	1. Triangular
	2. Cusped
	3. Lanceolate
Minor Subclass	1. Hybrid
	2. Pentagonal

### Future Research

The information now available suggests two general research strategies. First, the work done on Seneca lanceolate points should be expanded to include all Seneca points. This research should then be enlarged to cover Cayuga, Onondaga, Oneida, and Mohawk points. Second, projectile points from prehistoric Iroquois and Owasco sites should be examined using similar techniques to ascertain what can be learned about antecedent projectile points and the relationship between Owasco and Iroquois cultures.

## Acknowledgments

Grateful thanks are due to Charles F. Hayes III and the staff of the Research Division for their cooperation and in making collections available and for their aid and encouragement. Although this paper has been discussed with Research Division members, the writer takes full responsibility for all results and the conclusions drawn from them.

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- Personal Communications  
1993 Donald Cameron  
1993 Gordon DeAngelo  
1993 Martha L. Sempowski

# Minutes of the 78th Annual Meeting New York State Archaeological Association

Eddy Farms, Sparrowbush, New York

## Combined Business and General Meeting

The NYSAA annual meeting was called to order on April 29, 1994, at 9:02 pm by President Robert J. Gorall. The roll was called, with the President, Vice President, Treasurer, and Secretary in attendance. Thirteen of the fourteen chapters were represented.

## Report of the Officers

### President

The President stated that during the past twelve months, he has been involved in a number of activities covering the business of the association. One of these important projects was, and still is, the continuing communication with the Metropolitan Chapter through Chapter Member Leonard Cohan. The Metropolitan Chapter has been somewhat less than enthusiastic in its commitment to the purposes of the NYSAA. The NYSAA is now in the process of trying to correct that long-standing problem. Good progress is being made at this stage and hopefully a successful conclusion to the matter can be achieved within the next few months.

In February, he attended the NYAC meeting held at Chittenango, New York. The Secretary and he journeyed to Bangor, Maine, during October to attend the annual Eastern States Archaeological Federation meeting. The NYSAA looks forward to the 61st annual meeting, which will be hosted by Van Epps-Hartley Chapter, in Albany later this year.

The President gave several programs, both archaeological and ethnographic, before various groups including Kiwanis Clubs, Lions Clubs, several historical societies, Native American groups, and the Finger Lakes Community College in Canandaigua, New York. Earlier this month he presented a paper at the Northeastern Anthropological Association Conference held in Geneseo, New York. The conference session, entitled: *Archaeology in the Future: The Role of the Amateur Archaeologist*, was held in honor of retired state archaeologist and long-time NYSAA member, Robert Funk. Last weekend he went to Pittsburgh to attend the annual meeting of the Society for Pennsylvania Archaeology. Last May, he was adopted by the Ho-De-No-Sau-Nee into the Hawk Clan of the Allegany Senecas and was

given the name of "Ha-Je-No-Wah-Seh," which means, "He helps."

After hearing of a threat of possible destruction to an early contact site located in Elma, New York, President Gorall wrote to the local Town Supervisor with a request that care be taken concerning the Simmons Site. Evidence of Iroquois longhouses had been uncovered there, and he tried to impress upon the town official the importance of this area. He was recently informed by Bill Engelbrecht that, at this point, it appears that the project is on hold for now and hopefully permanently.

For the fast approaching Archaeology Week (May 8-14), the Secretary and the President set up a display of archaeological material from western New York at their local library in Newark. The display will be held throughout the month of May. Also, during Archaeology Week, Robert Gorall will be addressing a Quaker Society of Friends group from Seneca County and will touch upon archaeological events and programs as well as the Canandaigua Treaty of 1794.

A few months ago it came to the President's attention through an NYSAA member that there were rumors of someone using the NYSAA's tax exempt number when purchasing Indian artifacts at an Indian artifact auction held in New York. Robert Gorall contacted the owner of the auction house and was assured that no such transactions had taken place and that he would not honor such a request by anyone.

During the past year Roger Moeller, who had been handling the mailings of the NYSAA Bulletin along with so many other items, informed the President that he would be unable to continue that practice. The President requested the state Secretary to take over that task. She has answered the call with great dispatch, and the NYSAA seems to be going along smoothly.

In conclusion, President Gorall thanked all the members of the association for their cooperation during the past year and felt confident that continuing success awaits the NYSAA in the future.

### Vice President

No report.

### Treasurer

Treasurer's report accepted as read.

**Secretary**

As of April 29, 1994, there were 754 memberships with 904 members. The list is as follows:

Members-at-large	148
Adirondack Chapter	27
Auringer-Seelye Chapter	14
William M. Beauchamp Chapter	45
Lewis A. Brennan Lower Hudson Chapter	29
Chenango Chapter	47
Frederick M. Houghton Chapter	34
Incorporated Long Island Chapter	75
Incorporated Orange County Chapter	92
Lewis H. Morgan Chapter	92
Metropolitan Chapter	31
Mid-Hudson Chapter	14
Triple Cities	34
Upper Susquehanna Chapter Incorporated	28
Van Epps-Hartley Chapter	44

The minutes from the last annual meeting were read and accepted with corrections included.

**Committee Reports****Awards**

The committee met later in the evening.

**ESAF**

The meeting will be held in Albany, November 3-5, 1994 and will be hosted by the Van Epps-Hartley Chapter.

**Editor**

During 1993 two issues (Nos. 105 and 106) of *The Bulletin* were published with a combined total of 80 pages. Thirteen papers on New York State-related archaeology were included along with the 1992 annual meeting minutes. Monroe Graphics of Rochester, New York printed *The Bulletin* and shipped bulk copies to Muriel Gorall for distribution.

Assistant Editors Dr. Connie Cox Bodner and Brian Nagel again contributed their valuable services to the preparation of the manuscripts. Patricia Miller, Graphic Designer, PM Design, was responsible for the composition and layout of both issues. The Editor would like to express appreciation to these reliable individuals for providing the NYSAA with contemporary design, editorial accuracy, and scientific integrity.

Issues Nos. 107 and 108 are currently being assembled and should be out in 1994. Manuscripts are coming in steadily after a call for papers.

**Report of the Treasurer, April 15, 1994**

Adirondack Trust Co.

**4/20/93**

CD #37220016112	\$7,191.68
MMDA #7922385	\$3,193.92
NOW #2945406	\$2,158.94

**Cash Receipts 1993-1994**

Dues	\$7,710.00
Publication Sales	221.91
Interest NOW Account #2945406	34.61
Transfer from MMDA #7922385	<u>1,500.00</u>
TOTAL	\$9,466.52

<b>TOTAL RECEIPTS</b>	\$9,466.52
Balanced Checking Account (4/20/93)	<u>2,158.94</u>
Total	\$11,625.46

Disbursements (1993-1994)	<u>\$9,158.32</u>
Balance	\$2,467.14
Minus Checking Account Service Charge	15.80

BALANCE	\$2,451.34
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**4/15/94**

CD #37220016112	
(Interest '93/'94 \$502.19)	\$7,693.87
MMDA #7922385*	
(Interest '93/'94 \$62.35)	1,756.27
NOW #2945406	
(Interest '93/'94 \$34.61)	<u>\$2,451.34</u>

\* Less \$1,500 transferred to NOW account

TOTAL ASSETS	\$11,901.48
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**Disbursements (1993-1994)**

1993 ESAF Dues (847 members)	\$166.00
1994 ESAF Dues (881 members)	168.00
Secretarial Expenses	855.32
Treasurer Expenses	45.00
Setter Printing	399.00
<i>The Bulletin</i> No. 105	4,017.00
<i>The Bulletin</i> No. 106	<u>3,508.00</u>

TOTAL	\$9,158.32
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## Finance

No report.

## NYAC/NYSAA

Dolores Elliot announced the publication by NYAC of *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections*. This reflects the state of the art of acceptable standards for archaeological practice in New York. NYSAA members may get a copy.

The 3rd Annual Archaeology Week is scheduled for May 8-14, 1994. Governor Cuomo signed a proclamation concerning Archaeology Week. Posters and schedules of events are available. Dolores encouraged all chapters to put together an exhibit for the 4th Annual Archaeology Week in 1995. A special event for Archaeology Week in each chapter's area is suggested. To receive NYAC mailings, NYSAA members are encouraged to become NYAC correspondents (\$10.00).

## Nominating

Report to be given later.

## Legislative

The report was given by Paul R. Huey of the Van Epps-Hartley Chapter.

## Federal

On July 14, the House approved a \$2.45 million fund for FY 1994 for a program of grants to museums and Indian tribes to help them comply with the Native American Graves Protection and Repatriation Act (NAGPRA). The Senate Appropriations Committee reduced the funding request to \$2 million. The Clinton Administration had requested \$3 million in its budget proposal. Apparently the funding is now available for grants to museums and Indian tribes. By August, the Smithsonian had delivered more than 1,000 sets of remains, and more than 60,000 artifacts still remained to be inventoried.

Currently, there is a bill called the Native American Free Exercise of Religion Act, which was introduced May 25 in the Senate. This bill would provide for the identification of archaeological sites that have Native American religious significance and for the review by Indian tribes of any Federal or federally assisted project that would have an impact on such sites. The act would, however, cover unrecognized Indian law to their advantage, which would not be in the best interests of legitimate Indians or of our society in general. For more information or to express views on the bill, one should contact Dean Snow of the SAA Government Affairs Committee. Write to him at the Department of Anthropology, University at Albany, Albany, NY 12222. (Editor's note: Dean Snow's new address is Department of Anthropology, The Pennsylvania State University, 411 Carpenter Building, University Park, PA 16802-3404.)

The National Park Service is drafting new regulations to implement the 1992 amendments to the National Historic Preservation Act. The qualifications for professional archaeologists who work under the Preservation Act are being redrafted, and there is a major initiative to decrease the level of qualifications for archaeologists. The Park Service, however, would prefer to raise the standards to insure that the Section 106 process is carried out by qualified archaeologists. They hope to complete the regulations for public comment by the end of the summer.

Arthur Gerber, a professional collector of excavated artifacts, requested the United States Supreme Court to review his conviction for violating the Federal Archaeological Resources Protection Act. His conviction was the first under the act (ARPA) for looting archaeological artifacts from a site on private property, in this case from a Hopewell burial mound in Indiana. The Supreme Court has rejected his request, and he will soon begin serving a one-year prison term. In addition, he must pay a \$5,000 fine and is prohibited from participating in relic shows for three years following his release from prison.

In Pennsylvania, the Pennsylvania Supreme Court on November 9 reversed its own controversial and unprecedented decision that had struck down the city preservation ordinance in Philadelphia. The Pennsylvania Court in 1991 had decided that the city's right to designate a property as historic without the owner's consent was unconstitutional, despite the United States Supreme Court's decision in 1978 to the contrary.

## State

Bills passed by the legislature and signed into law by Governor Cuomo in 1993 include a law that provides for the consideration of the New York State Barge Canal's historic character to insure the preservation of historic sites and buildings. In addition, the legislature increased the Council on the Arts appropriation by \$3 million. Finally, during the closing hours of the 1993 legislative term, in an all-night session, the Senate and the Assembly passed the Environmental Preservation Act, which Governor Cuomo signed into law on August 17. This act creates an Environmental Protection Fund to help the State acquire open space and to provide matching grants to nonprofit organizations and municipal agencies to enable them to acquire and rehabilitate historic buildings and sites and urban cultural parks. The fund is expected to generate more than \$20 million starting this month and more than \$95 million annually by 1995. The Governor's executive budget for FY 1994 calls for expanding the fund with revenues from unclaimed deposits on beverage containers. Amounts available from bottle and can deposits will total \$50 million in 1994-1995, growing to \$75 million on an annual basis. This money would provide funding that is necessary to restore and maintain state parks and state historic sites, but there is heavy opposition to making this

money available. Moreover, the approval of the budget again appears to be at a standstill, with about \$400 million in proposed tax cuts at issue. Critics fear that the state is falling into the same trap it did in 1987, when it cut income taxes only to run into several years of critical budget deficits that severely and permanently hurt many state programs including archaeology.

Another bill passed and signed into law in 1993 establishes the New York State Biodiversity Institute. This institute is established within the State Museum to coordinate efforts by the State Museum and other state agencies to develop a comprehensive body of knowledge on the state's biodiversity. Biodiversity is defined as the total variety of living organisms and the natural processes that support them. Presumably this could include the study of flora and fauna in the past as identified from archaeological evidence.

A Senate bill not yet introduced would set up an independent panel to review all scientific research, including archaeological work, by state employees. Such a bill, if passed, would unfortunately add one more step in an already very complex project review process. The bill should be watched closely if and when it is introduced in the Senate.

On May 6, 1993, Governor Cuomo signed a proclamation establishing May 9-15, 1993, as Archaeology Week in New York State. The proclamation recognized the contributions of the New York State Archaeological Association, the New York Archaeological Council, and the Professional Archaeologists of New York City in promoting public awareness of the concern for protecting the state's rich cultural heritage. It declares that "New York's prehistory and history are rich in cultural diversity as represented by the numerous archaeological sites within our state" and that "preservation of prehistoric and historic archaeological sites provides significant... benefits to all citizens."

After Paul Huey's report, Chief Paul Waterman asked that we not refer to the Indian "tribes" as such, but as nations.

#### **Public Archaeology**

Vacant

#### **Program**

Absent

#### **Publications**

Absent

#### **Librarian**

Gordon de Angelo stated that he had been in contact with persons at the Syracuse University library, and it is still possible that they would be interested in having the NYSAA library there. He will report more later on this subject.

#### **Old Business**

##### **The Special Awards Criteria Committee**

Peter Pratt, Chair of the Awards Committee, gave his report from the fellows. After much discussion, they decided that the proposal "that a fellowship be awarded automatically" not be implemented. They thought that the wording of the other awards was acceptable. They also felt that the suggestion of a committee consisting of the Association's Executive Committee was not acceptable. The Awards Committee felt that a peer review was necessary for fellowship awards. Peter Pratt did, however, promise that there would be no appearance of favoritism shown in selecting the fellows in the future. A motion was made by Peter Pratt and seconded by Herb Kraft that the deceased fellows continue to be listed but not noted as such in the NYSAA Bulletin. The motion was carried. Fran McCashion made a motion, seconded by Dan Weiskotten, that the award applications be submitted to Peter Pratt, Awards Chairman, no later than March 1 of each year. The motion was carried.

#### **New Business**

The 1995 annual NYSAA meeting will be hosted by the W.F. Beauchamp Chapter. It will be held in Syracuse, New York on April 21-23, 1995, at the Holiday Inn, Carrier Circle. Vickey Jayne noted that this will be the Beauchamp Chapter's 25th anniversary.

The President appointed Jack Lee and Richard Jackson to open and count the ballots, which were received in the mail, for the election of officers. Ballots were recorded as follows:

Ballots received		104
President	Robert Gorall	104
Vice President	Albert LaFrance	101
	Not checked	2
	Chuck Thomas (write-in)	1
Secretary	Muriel Gorall	103
	Fran McCashion (write-in)	1
Treasurer	Carolyn Weather-wax	104

The slate of officers were elected for a two-year term. Jack Lee made a motion seconded by Dick Jackson to thank the host chapter (Inc. Orange County Chapter). The motion was carried. It was brought to the members' attention that a member should only have to pay the state dues for his/her home chapter. Members could join as many chapters as they wish but only receive one Bulletin. They would only be counted as one member, credited to their home chapter. After a discussion, the President appointed a committee to look into the matter, with the proposal being tabled until the committee reports back at the next annual meeting.

The meeting was adjourned at 10:45 pm.

*Muriel E. Gorall, Secretary*



# Program

## 78th Annual Meeting

### New York State Archaeological Association

April 29, 30, and May 1, 1994  
 Eddy Farms, Sparrowbush, New York  
 Host: Incorporated Orange County Chapter

#### Friday, April 29, 1994

10:00 am	NYSAA Registration
10:00 am	NYAC Board Meeting
1:30 pm	NYAC General Business Meeting
2:00 pm	Tour of Delaware & Hudson Canal Park and Museum
3:30 pm	Tour of Delaware & Hudson Canal Park and Museum
6:00 pm	Buffet Dinner
7:00 pm	NYSAA Awards Committee Meeting
NYSAA	Executive Committee Meeting,
	General Business Meeting
8:00 pm	Welcoming Slide Lecture
	<i>Port Jervis, New York: A Transportation Nexus 1690-1994</i>
	Peter Osborne
	Exec. Director Minisink Valley Historical Society
9:00 pm	Social Gathering

#### Saturday, April 30, 1994

8:00 am	NYSAA Registration
9:00 am	Welcome
	Robert J. Gorall, President NYSAA
	Charles R. Thomas, President, Inc. Orange County Chapter, NYSAA

#### Current Research in New York State

Chair: Herbert C. Kraft, Seton Hall University Museum, Inc.  
 Orange County Chapter

9:15 am	<i>The Coldkrest Site: A Late Late Woodland Mahican Settlement on the Hudson River near Albany</i> Lucianne Lavin, Marina Mozzi, Karen S. Hartgen, and J. William Bouchard Hartgen Archeological Associates, Inc.
9:40 am	<i>The Lower Saranac Site: A Middle Archaic to Middle and Late Woodland Site on the West Side of Lake Champlain, Clinton County New York</i> Andre Krievs Hartgen Archeological Associates Inc.
10:05 am	<i>The Eaton Site: Preliminary Analysis of the Iroquoian Component</i> William Engelbrecht Buffalo State College, Houghton Chapter
10:30 am	Coffee Break
10:50 am	<i>The Van Deusen Site, Hurley, Ulster County, NY</i> Joseph E. Diamond SUNY New Paltz
11:15 am	<i>The Ceramics of the Spring House Rockshelter in a Regional Context</i> Robert S. Casagrand Sheffield Archaeological Consultants
11:35 am	<i>The Minisceongo Golf Course Site: A Multicomponent Archaic Station in Ramapo, New York</i> Douglas P. Mackey Hartgen Archeological Associates, Inc.
12:00 noon	Lunch

# **Symposium: Military Sites Archaeology Along the Champlain-Hudson Valley Corridor**

Chair: David R. Starbuck

Adirondack Community College, Plymouth State College

1:30 pm *Introduction: Overview of Current Research in the Corridor*

David R. Starbuck  
Adirondack Community College,  
Plymouth State College

1:35 pm *Recent Underwater Archaeological Surveys at Lake George, New York*  
Joseph W. Zarzynski and John Farrell  
Bateaux Below, Inc.

2:00 pm *Military Burials at Fort William Henry*  
Maria A. Liston  
Adirondack Community College

2:25 pm *Mount Independence: Archaeology at Vermont's Revolutionary War Bastion*  
William C. Murphy  
Vermont Archaeological Society

2:50 pm Coffee Break

3:10 pm *Unearthing America's First World War on Rogers Island*

David R. Starbuck  
Adirondack Community College,  
Plymouth State College

3:35 pm *Archaeological Site Surveying: New Techniques with Examples from Mount Independence and Rogers Island*  
Gordon DeAngelo  
William M. Beauchamp and Chenango Chapters

4:00 pm *18th Century Military Ceramics*  
Barbara DeAngelo  
William M. Beauchamp and Chenango Chapters

4:25 pm *Military Foodways at Rogers Island and the Difficulty of Provisioning Troops in the 18th Century*

Jene C. Romeo  
The Graduate School and University  
Center of the City University of New York

6:30 pm Social Hour

7:30 pm Annual Banquet

Master of Ceremonies: Robert J. Gorall  
Presentation of NYSAA Awards:

Peter J. Pratt

Keynote Address:

*River Indians, North and South: Similarities and Differences between the Aboriginal Peoples of the Hudson and Delaware Valleys*

Marshall Joseph Becker

Fellow in Anthropology, University of Pennsylvania

**Sunday, May 1, 1994**

## **General Session**

Chair: Charles R. Thomas

President, Inc. Orange County Chapter

9:00 am *Was Cro-Magnon Man in the New York Palisades?*

Herbert C. Kraft  
Seton Hall University Museum, Inc.  
Orange County Chapter

9:25 am *Beyond Clan Symbols: A Survey of Indian Pictographic Signatures on Land Deeds in New York and Western New England*  
Shirley W. Dunn

Van Epps-Hartley Chapter  
Iroquois Lanceolate Projectile Points

Robert A. Navias  
Lewis Henry Morgan Chapter

9:50 am Coffee Break

10:15 am *The Sidney Site: Finding and Defining the Limits of an Early Late Woodland Village Site on the Susquehanna River*

J. William Bouchard  
Hartgen Archeological Associates, Inc.  
1993 Investigation of Site 35 CO 30

10:30 am Ellis E. McDowell-Loudan and Gary L. Loudan

SUNY Cortland, William M. Beauchamp Chapter

11:20 am *Prehistoric Chert Quarries within the Lower Ordovician Halcyon Lake Group: The Elucidation of a Prehistoric Mining District in Orange County, New York*

Philip C. LaPorta  
Hunter College of City University of New York

11:45 am *Management Aspects of the Dutchess Quarry Sites*

Martha A. Costello  
Rust Environment and Infrastructure

12:10 pm *How to Pow Wow*

Dolores Elliott  
Triple Cities Chapter

## Publication Announcement

*From Prehistory to the Present: Studies in Northeastern Archaeology in Honor of Bert Salwen*

Edited by Nan A. Rothschild and Diana diZerega Wall, published as a special issue of *Northeast Historical Archaeology*, Volumes 21 -22. 1992/1993 (1994).

Bert Salwen's eclectic interests in archaeology encompassed the diversity of the field and many of the critical changes that occurred within it throughout his long professional career. This volume is in his memory, with

articles written by students and colleagues, and reflects the diversity of his interests. It includes fifteen articles that together, cover the Prehistoric, Contact, and Historic periods in the Northeast, as well as such topics as cultural resource management and the role of archaeologists today in constructing the past.

Order from Mary C. Beaudry, Editor, Department of Archaeology, Boston University, 675 Commonwealth Avenue, Boston MA 02215. Price: \$22 U.S. or \$25 CDN (to cover the cost of the volume plus postage and handling).

## News Release: Southold Indian Museum Acquisition

*Walter L. Smith, Incorporated Long Island Chapter, NYSAA*

One of the most important archaeological sites in New York State is now completely owned by the Incorporated Long Island Chapter of the New York State Archaeological Association, a.k.a. Southold Indian Museum.

Flint Mine Hill, near Cocksackie, New York, has, for over 8,000 years, been a source of flint for the American Indian. In December, 1994, 17.38 acres that existed between the museum's original holdings was purchased. Now all 63.88 acres are secure from development and exploitation.

In 1925, Dr. Arthur C. Parker, New York State Archaeologist, wrote "The Great Algonkin Flint Mines" in *Researches and Transactions of the New York State Archaeological Association*, Vol. IV, No. IV, published by the Lewis Henry Morgan Chapter.

A view of Flint Mine Hill leads to the conclusion that it is one of the most important Indian localities in the entire state. To the Indians it was a great discovery and it remains today the outstanding monument of aboriginal endeavor [Parker 1925:123].

Flint Mine Hill was a vast aboriginal industry reaching back over 8,000 years. Here Indians from far and wide obtained flint for their chipped implements and from these quarries flint was sent to distant regions. The site is close to the Hudson River near Cocksackie, Green County, New York

At the 1923 meeting of the Trustees of the New York State Archaeological Association, a resolution was passed that the site be acquired as a state reservation. A bill presented to both branches of the legislature passed, but was not signed by Governor Al Smith.

Thirty-seven years after the New York Central Railroad, the owners of the 46.5-acre property, sold it to a private individual. He in turn sold it to the Incorporated Long Island Chapter of the New York State Archaeological Association (aka) Southold Indian Museum. Mr. Fred Husing, a member of the chapter, donated the money to make the purchase possible. The sale was completed in August, 1960.

Green County Historian, Ms. Mable Parker Smith of Catskill, New York, with the help of Senator Jacob Javits, was able to have 6 acres of Flint Mine Hill placed on the National Register of Historic Places on November 29, 1978.

The 46.5 acres owned by the Incorporated Long Island Chapter of the New York State Archaeological Association consisted of two holdings. However, subsequent maps showed that this was not a contiguous piece of property, but was separated by 17.38 acres. This property was surrounded on three sides by the museum's property and a private holding on the far side.

In 1992, Mr. Frank O'Connell, a member of the Board of Trustees and an attorney and Professor Walter L. Smith, President of the Southold Indian Museum, spent many days making an in-depth study of the legal background of Flint Mine Hill. This was followed by a complete survey of the site by Harvey Associates of Palenville, New York.

Length negotiations between the owner of the 17.38 acres and Mr. Frank O'Connell finally concluded with the purchase of the property by the Incorporated Long Island Chapter of the New York State Archaeological Association.

Dr. Parker's hope and that of the Trustees of NYSAA for the protection of the Flint Mine Hill Site was finally fully achieved in December of 1994.

## Past and Present NYSAA Award Recipients

### 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) (1994)  
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. Engelbrecht  
Lois M. Feister  
Stuart J. Fiedel  
Robert E. Funk  
Thomas Grassmann O.F.M.  
Alfred K. Guthe  
Gilbert W. Hagerty  
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  
James F. Pendergast  
Peter P. Pratt  
Robert Ricklis  
William A. Ritchie  
Bruce E. Rippeteau

Donald A. Rumrill  
Bert Salwen  
Lorraine P. Saunders  
Harold Secor  
Martha L. Sempowski  
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

Thomas Amorosi  
Roger Ashton  
Charles A. Bello  
Monte Bennett  
Daniel M. Barber  
Malcolm Booth  
James W. Bradley  
Art Carver  
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  
Elaine Herold  
Franklin J. Hesse  
Richard E. Hosbach  
Paul R. Huey  
Albert D. La France  
Kingston Lerner  
Edward J. Lenik  
William D. Lipe  
John H. McCashion  
Dawn McMahon  
Jay McMahon  
Brian L. Nagel

Marjorie K. Pratt  
Peter P. Pratt  
Louis Raymond  
Barbara Sciully  
Harold Secor  
Annette Silver  
Mead Stapler  
David W. Steadman  
Marilyn C. Stewart  
Neal L. Trubowitz  
Charles E. Vandrei  
James P. Walsh  
George R. Walters  
Beth Wellman  
Henry P. Wemple  
Roberta Wingerson  
Stanley H. Wisniewski