

# THE BULLETIN

Number 68      November 1976

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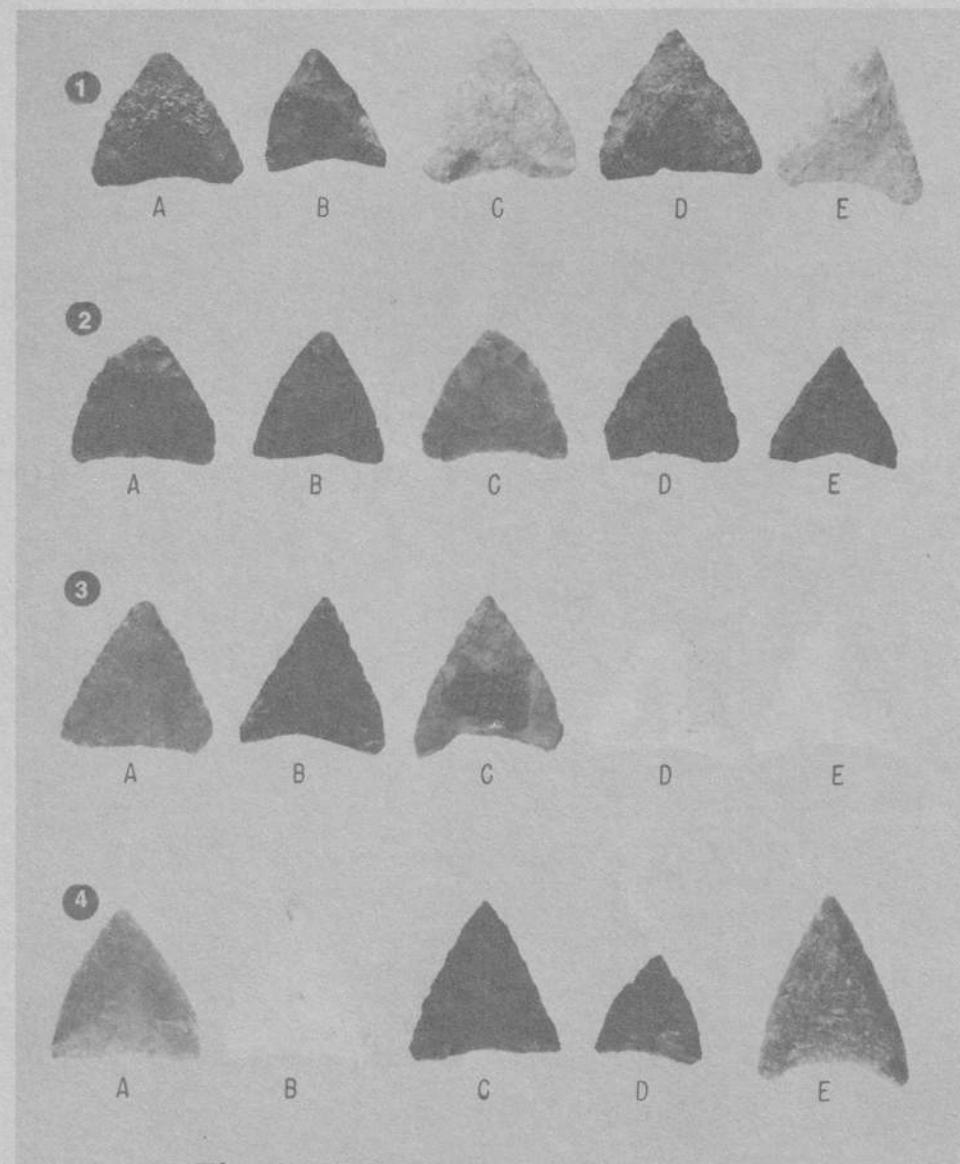
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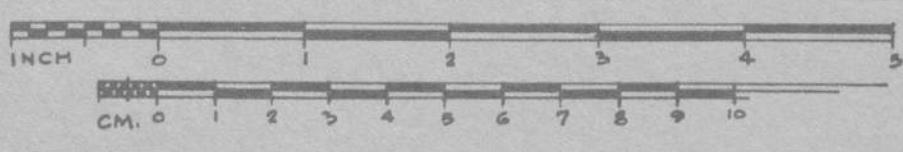
# THE BULLETIN

NUMBER 68

NOVEMBER 1976



The Hunterbrook Triangle Point Type



THE NEW YORK STATE ARCHEOLOGICAL ASSOCIATION

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**PRACTICAL ADDS TO ARCHAEOLOGICAL INVESTIGATIONS:  
SMALL FIND ILLUSTRATION**

Eugene L. Sterud and Ann-Kristin Bohlin

SUNY Binghamton

In recent years there has been a notable shift in the role of the amateur or avocationalist in archaeological research. The increasing recognition that site excavations should be attempted only in cases where destruction is imminent and where alternative preservation measures could not be implemented, or where there exists a well-developed scientific research design and problem, has led to the development of a number of areas within the total archaeological picture where the avocationalist has been able to contribute meaningfully to local archaeology without being involved in excavations per se. Some of these roles have recently been spelled out by Ferguson (1972: 1, 2).

One way of contributing is through the development of skills, which can be applied to the upgrading of publication standards in the sense of improving the illustrations, which accompany published studies of various kinds. One expectable result of de-emphasizing the needless and obviously destructive excavation of local sites will be for the avocationalist and professional alike to turn to hitherto unpublished materials in museums as well as to the detailed study of specific categories of artifactual remains from previously published collections in new and different ways. It follows that there should be a growth in the number of publications of these studies appearing in journals such as the present one. The responsibility which falls upon the professional and avocationalist alike to see such museum-oriented projects through to completion involves their appropriate publication. This publication responsibility includes suitably illustrating the reports.

There is nothing so upsetting to the critical reader of an archaeological report as reading a work that is well written but poorly illustrated. Indeed, one has a tendency to judge the quality of the work accomplished by the plates, figures, maps and illustrations, which accompany and illuminate the written account.

Depending upon the type of small find to be illustrated, one will normally use either direct photographic techniques or inked line or stippled drawings. There are certain classes of small finds, which do not lend themselves well to photographic reproduction. Chief among these are chipped stone materials. Because of this, one generally finds these lithic objects illustrated by means of drawings. One is then faced with certain difficulties, which must be overcome. First, one must use a technique, which will result in the faithful representation of the shape and proportions of the object. When drawing such objects, it is sometimes difficult to record the many flake scars, wear traces and cortical areas with a high degree of accuracy. Second, the texture of the raw material should be represented properly, whether glossy, coarse, etc. Third, those highlights of an object that the archaeologist feels are relevant should be honestly emphasized. For a bibliography and discussion of some of the efforts to overcome these and related problems of illustration, see Sterud and Bohlin (*in preparation*).

The method, which is described below, and offered as one means of illustrating small finds which are often difficult to reproduce effectively, was first used by the authors in the course of publishing the results of their prehistoric researches in Yugoslavia. It was found to be quick, efficient, accurate, and on a par with the results obtained by far more experienced and talented artists whose services are expensive and greatly in demand. The authors claim no originality in the development of this technique. It is widely in use in commercial illustration, scientific illustration as well as occasionally used by archaeologists. The use of this technique was originally suggested by Mr. Donald Miller, Regional Archaeologist for the U. S. Forestry Service. While it has been cited in works on illustration for many years (Ridgway, 1920; Zweifel, 1961:123, 124; Ives, 1948; Brodribb, 1971), there has been no attempt to date to demonstrate in detail the use of this technique.

This combined photographic/line drawing technique of artifact illustration involves the following steps:

- 1) Photographing an object.
- 2) Drawing the outlines.

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FRONT COVER: The Hunterbrook Triangle Point Type. See p. 25.

- 3) Bleaching the photograph.
- 4) Completion of shading and fine details.
- 5) Preparation of the plate.
- 6) The completed plate.

These six steps will be described in detail and illustrated using artifactual materials from local New York State sites.

*1. Photographing an Object.* Using a 35 mm camera and black-and-white film, photograph the artifacts to be illustrated. This can be done quite rapidly inasmuch as the resultant print need not be of exceptional quality. This in turn means that as long as one is photographing similar artifactual materials, a large number of specimens can be photographed in quick succession and with little necessity for changing of camera settings, special shading, lighting, etc. One must always bear in mind that the completed object will be a drawing and the shading convention for drawing calls for the light source to be constantly from the upper left corner of the illustration. If you initially photograph the object with the light source at that point, the subsequent shading will be greatly enhanced. A clear scale must be included. The best results accrue from a print, which is enlarged 2 to 3 times the size of the original specimen. The photographic paper should be mat finished rather than either glossy or pebbled. The ink absorbs well on a mat finish while on a glossy finish it tends to absorb unevenly (Fig. 1, a, d).

*2. Drawing the Outlines.* Using a rapidograph pen and a medium point (0, 1, 2,), draw the outline of the object and all major identifying lines which can be seen clearly on the photograph. One can improve upon this initial work by having the artifact close at hand for ready reference where the lines may be obscured. The same treatment holds true for objects such as ground stone or bone tools, which lend themselves more readily to stippling. One caution should be added here. There are numerous inks on the market; it is of crucial importance that the ink used be truly waterproof (e.g., Staedtler/Mars 747T). Regular India inks, while advertised as waterproof, are somewhat inferior in this regard (Fig. 1, b. e).

*3. Bleaching the Photograph.* The next step is to bleach away the photograph, leaving the drawn outlines. The bleaching process is fairly straightforward and can easily be mastered. There are several suitable bleaching agents (see Kodak Data Book J-1). In the present illustrations, the authors used a commercial bleach, KODAK Farmer's Reducer, which comes already packaged in two parts which are mixed together when they are to be used (since they do not keep long in combination).

The application of the bleach to the print involves placing the combined solution in a hard rubber darkroom tray and submerging the print carefully into the solution. The bleaching can be accomplished most rapidly by adding only a few drops of Solution B to Solution A. All but the most dense prints will bleach away within 5-10 minutes. Since the combined solution only lasts about 15 minutes, extremely dense photographs may require a second treatment. When placing the print into the solution, caution must be taken not to agitate the print too actively as there is a certain danger that the ink will run. This danger is greatly reduced through use of the proper ink. Generally, however, smudging or running ink is not a problem since a finished plate, as furnished to the printer, will reflect only the highly contrasted blacks and whites so it is possible to retouch the plate moderately and obliterate any small smudges. If the original print is a very dark one, the commercial bleach may not completely eradicate it. Again, a certain amount of retouching with a white drafting ink or other opaquing liquid serves to take care of this. Several prints can be bleached at a single session, reducing the total time required to complete the task. After a thorough rinsing, the bleached prints can then be left to dry on an absorbant surface (Fig. 1, c, f).

*4. Completion of Shading and Fine Details.* Once a print is dried, all details, shading or additional stippling can be easily performed in accordance with normal convention upon the inked outline (Fig. 1, g). The advantages of this secondary retouching include:

a) A clean white surface which will represent the final product and on which all shading can be clearly seen by the artist doing the shading (the darkened photo can sometimes be deceptive).

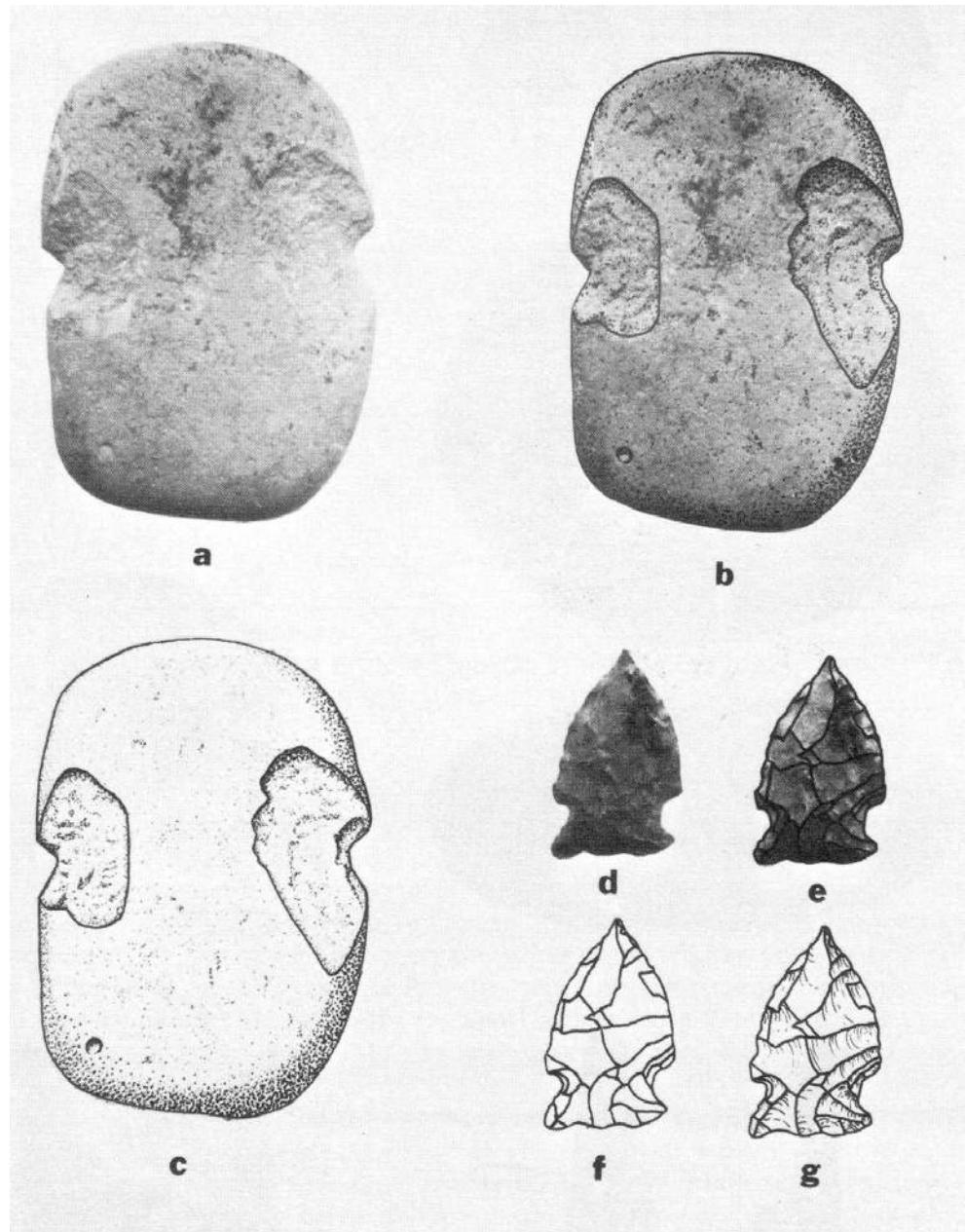


Figure 1. Stages in the Bleaching Process.

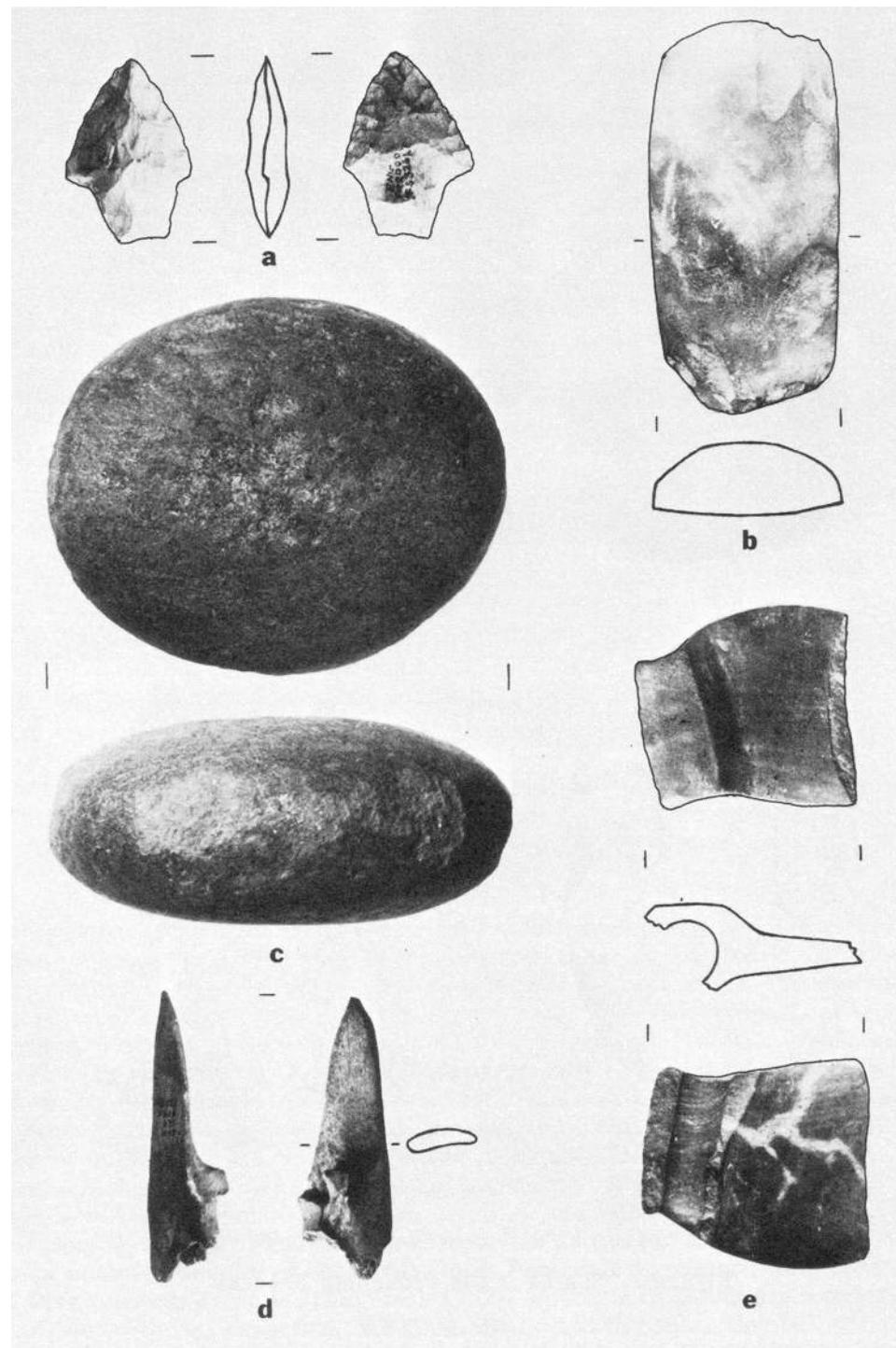


Figure 2. Selected Artifacts Reproduced Photographically.

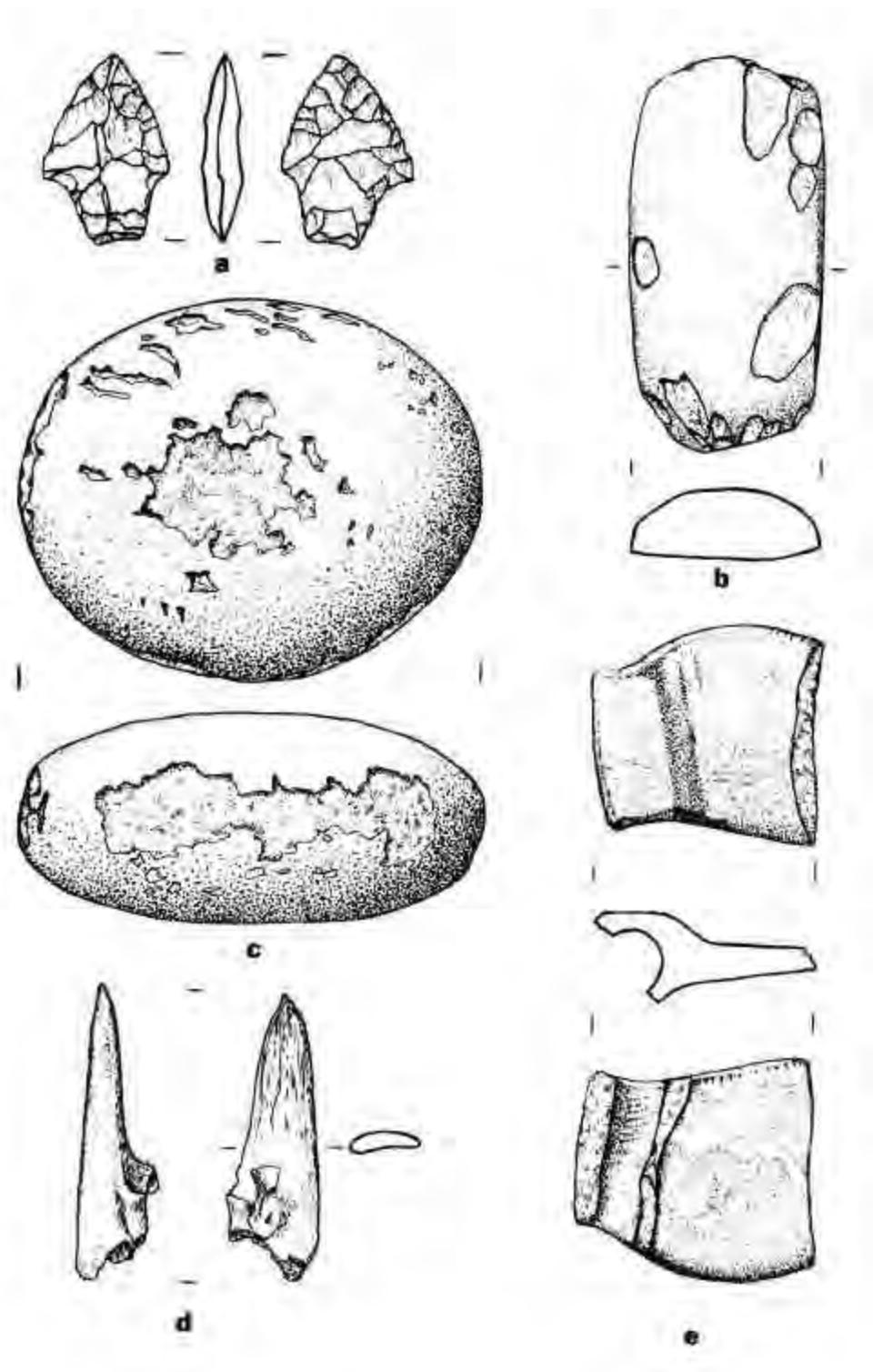


Figure 3. Selected Artifacts Reproduced with a Combined Photographic and Drawn Technique.

- b) The post-bleaching shading reduces the likelihood of smudging. There is no further immersing of this print in any solution.
- c) The maximal use of the original artifact which should be referred to during the shading and final ... retouching whenever possible.

While one of the objections to the use of this bleaching technique has been the argument that the bleaching process tends to break down the fiber of the paper making the drawing of any additional lines difficult, the present authors have not experienced this difficulty. Should one experience great difficulties, it is possible to explore certain related techniques, as suggested by Ives (1948:323) and Brodribb (1971: 89, 92).

*5. Preparation of the Plate.* Once a complete set of drawings has been produced, they can be handled in a fashion similar to any other illustrations. In the present illustration, the chipped stone and other objects were cut out and mounted on Strathmore board. Since they were larger than the original size of the objects, the artist has had considerable freedom in the addition of details. When the plate is reduced to the size required by the publication, any small imperfections in shading or in the outlines will be eliminated. The text can be added through the normal Leroy technique or rub-on letters.

*6. The completed Plate.* The completed plate may be submitted to the publisher "as is" or, as in the present example, re-photographed on glossy, high-contrast paper using a larger camera (4 x 5), in order to have a back-up copy in case of some accident to the original. In either case, the finished plate will present your efforts in a truly professional and highly accurate manner.

To illustrate the enhanced illustrative value of drawings produced in this way, the authors have selected several characteristic artifacts from this region, producing them first in a photographic format (Figure 2) and then using the above-described technique (Figure 3). The photo graphic plate illustrates one further difficulty, namely, when one attempts to illustrate photographically a number of objects that vary greatly in shade (darks and lights), it is difficult for the photographer to reproduce all objects evenly. Some will be too dark, others too light. The result is a loss in information.

Anyone attempting to use this technique must expect to experiment a bit in order to pattern the basic method to his own needs. However, it is argued here that the mastering of this relatively straightforward technique will enable the illustrator of artifactual materials to produce high quality line drawing and/or stippled reproductions of those objects which are nearly free from the distortions which so often accompany drawn reproductions of small finds while at the same time clearly portraying those attributes of the objects that the illustrator deems important to the viewer.

In conclusion, the above method of illustrating small finds using a combined photographic/ line drawing technique has been presented in some detail in the hopes that an understanding of the potentials and procedures involved will add another tool to the repertoire of practicing archaeologists faced with the responsibility of illustrating their small finds.

#### ACKNOWLEDGMENTS

The authors wish to thank Marilyn Stewart for furnishing the artifacts used in the above plates, and David Tuttle who produced the final photographic plates and assisted in other aspects of the darkroom photography.

#### References

Brodribb, Conant

1971 *Drawing Archaeological Finds*. Association Press, New York.

Ferguson, Bob

1972 New Roles for the Amateur Archaeologist. *American Antiquity*, Vol. 37, No. 1, pp. 1, 2.

Ives, Ronald L.

1948 Line Drawings from Unsatisfactory Photographs. *American Antiquity*, Vol. 13, No. 4, p. 323.

*Kodak Data Book*

1963 Processing Chemicals and Formulas for Black-and-White Photography. No. J-1, Sixth Edition.  
Rochester, New York.

Ridgway, John L.

1920 *The Preparation of Illustrations for Reports of the United States Geological Survey*. Washington,  
Government Printing Office.

Sterud, Eugene L. and Bohlin, Ann-Kristin

In Preparation

Small Find Illustration: A Combined Photographic/Line Drawing Technique.

Zweifel, Frances W.

1961 *A Handbook of Biological Illustration*. Chicago, The University of Chicago Press.

A PRELIMINARY REPORT ON THE PREHISTORIC  
ARCHEOLOGICAL RESOURCES OF THE  
ONESQUETHAW CREEK HISTORIC DISTRICT

Charles Fisher

SUNY at Albany

Introduction

Surface sites in the Northeast have usually been disturbed, most often by the agricultural activity. Until recently they have been regarded as containing little of scientific value. However, with increasing interest in settlement pattern and site variation, archeologists have been forced to reconsider these sites on the possibility that they may represent locational or functional differences in prehistoric behavior.

For example, archeologists have generally searched for and frequently worked on large stratified sites. Stratified sites result from rapid deposition of non-cultural and cultural material. This type of deposition occurs on flood plains more than on other areas. Thus, interpretations based on excavations of stratified sites may apply mainly to one particular ecological niche, that of flood plains.

Sites that have been disturbed by plowing may be on flood plains or in other topographical and ecological settings, where non-cultural deposition has been minimal or slower than along flood plains. Slower deposition rates may be attributed to higher elevations, such as river terraces. Higher areas relative to the flood plain are obviously an advantageous location during periods of flooding. An attempt to examine seasonal and functional variations among archeological sites must include sites with different depositional histories.

Where deposition has been rapid, in flood plains for example, disturbed surface sites may relate to only the late prehistoric periods. Thus sites of a specific time period (and possibly a specific functional class) may be neglected by our bias against studying surface sites.

In either the case of shallow surface sites or thick stratified deposits, interpretative problems arise for archeologists when surface sites are not investigated. The variability in site locations, functions, and the total number of prehistoric sites of given cultures will surely be underestimated.

In work here reported systematic surface collection enabled horizontal delineation of small campsites on plowed fields. Disturbance (plowing) had resulted in a dispersal of cultural

material, but the dispersal does not prevent recording data concerning site locality, size of the site, type of activity, and approximate period of occupation.

### Site Description

The Nyquist Field is located on a northern meander of the Onesquethaw Creek in the southeast portion of the Town of New Scotland, Albany County, New York. It is approximately 8 mi. west of the point where Onesquethaw (Coeymans) Creek joins the Hudson River at the town of Coeymans.

The cornfield is generally within the Onesquethaw Creek's flood plain. Therefore it is primarily a fine silt with few stones, except on the higher, rocky terrace in the southeast section of the field. Because of the size of the field, approximately 10 a., a drainage ditch was utilized to divide the field into two portions, the East Field and the West Field.

Among the resources available to inhabitants of this area, the most obvious, and probably most crucial is the creek itself. Several small tributary streams, from their sources in the Helderberg Mountains, join together less than a half-mile to the west of the Nyquist's fields. Just south of the eastern portion of the field the creek goes underground. In the fall, these two factors create pool-like, water-holding areas where aquatic resources are available. These resources are not available to the east, where the creek is underground.

Nodules of a black chert which was frequently represented in the artifacts from the site were observed in the limestone of the creek bed.

The Nyquist's fields are within a 10 mi. radius of three different physiographic provinces of the northeast (Ritchie, 1965). Two are lowland areas, the Hudson and Mohawk, while the highland province is that of the Glaciated Allegheny Plateau. Since the Onesquethaw Creek flows into the Hudson River, we believe this study will be relevant to future investigations of the relationship that existed prehistorically between lowland and plateau-highland areas.

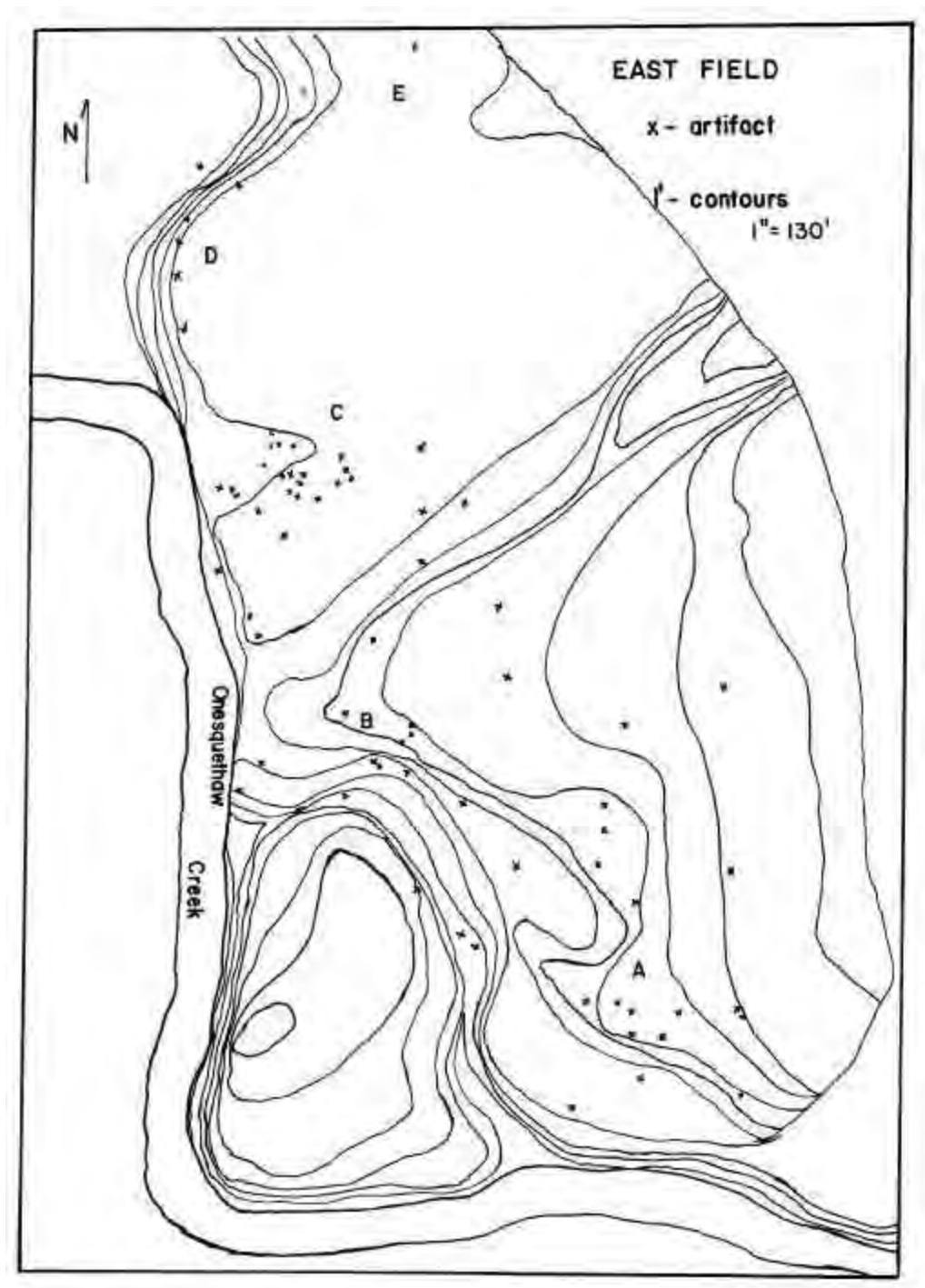
This outline is based primarily on the surface collection made during the fall of 1973, on the Nyquist's property and an examination of the Jordan collection from a nearby field. The site and the method of collection employed have been previously described by the writer. The sequence used here is taken from a chart compiled by Funk, in the New York State Museum in Albany, summarizing his extensive research on the chronology in the Hudson River Valley.

The earliest occupations are reflected by a narrow stemmed and a side-notched projectile point in the West Field; both styles are associated with the Late Archaic in the Hudson Valley.

Figure 1  
Preliminary Outline for the Culture History of the Onesquethaw Creek

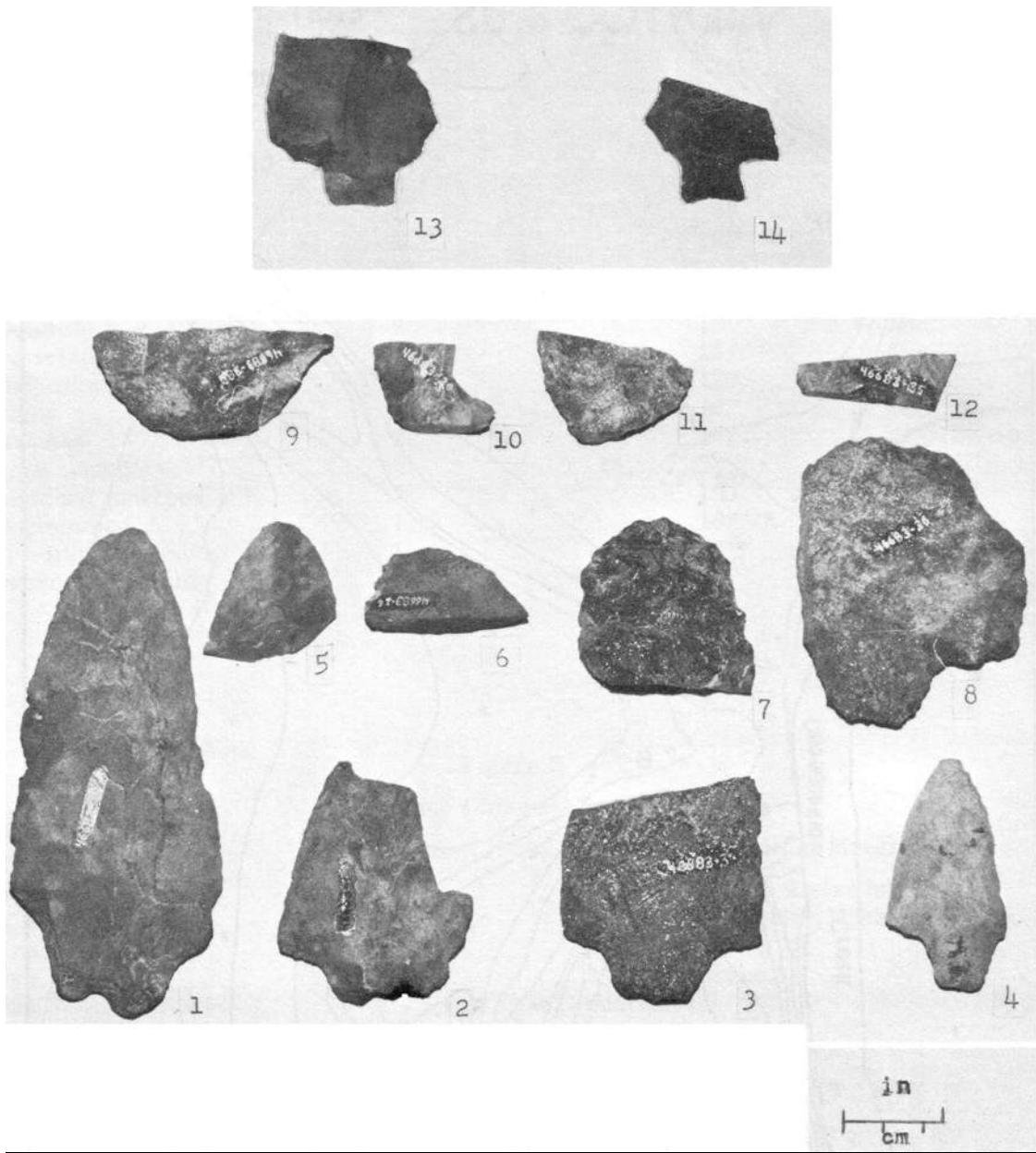
Period	Approximate Dates in Hudson Valley*	Diagnostic Items/Projectiles	Site
Historic		crockery	
Late Woodland		kaolin pipe	Nyquist West
		Madison	Nyquist West
		Levanna	Nyquist West
			Nyquist East
Middle Woodland	450 A.D. (Schoharie Valley) 410 A.D.	Fox Creek Greene	Jordan's Collection Jordan's Collection
Early Woodland	760 B. C.	Meadowood	none
Transitional		Susquehanna	Nyquist West
Late Archaic	1470 B. C. 1350-1930 B. C. 2050-2210 B. C.	Perkiomen Snook Kill Normanskill Sylvan Lake Complex	Nyquist East Nyquist West Nyquist West

\*After Funk, 1973 (Chart in NYS Museum)



cf

12-73



NYQUIST EAST \* A on map  
Snook kill material

1, 2, 3, 4 - knives/projectile points

7 - scraper

8 - stemmed biface (knife blank?)

5, 6, 9, 10, 11, 12 - biface fragments

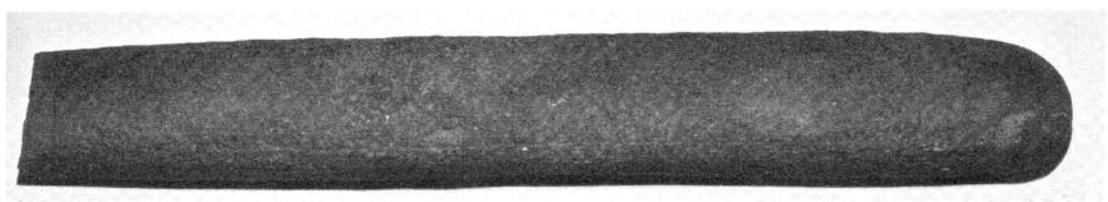
13, 14 - projectile point base \* B on map  
Perkiomen type



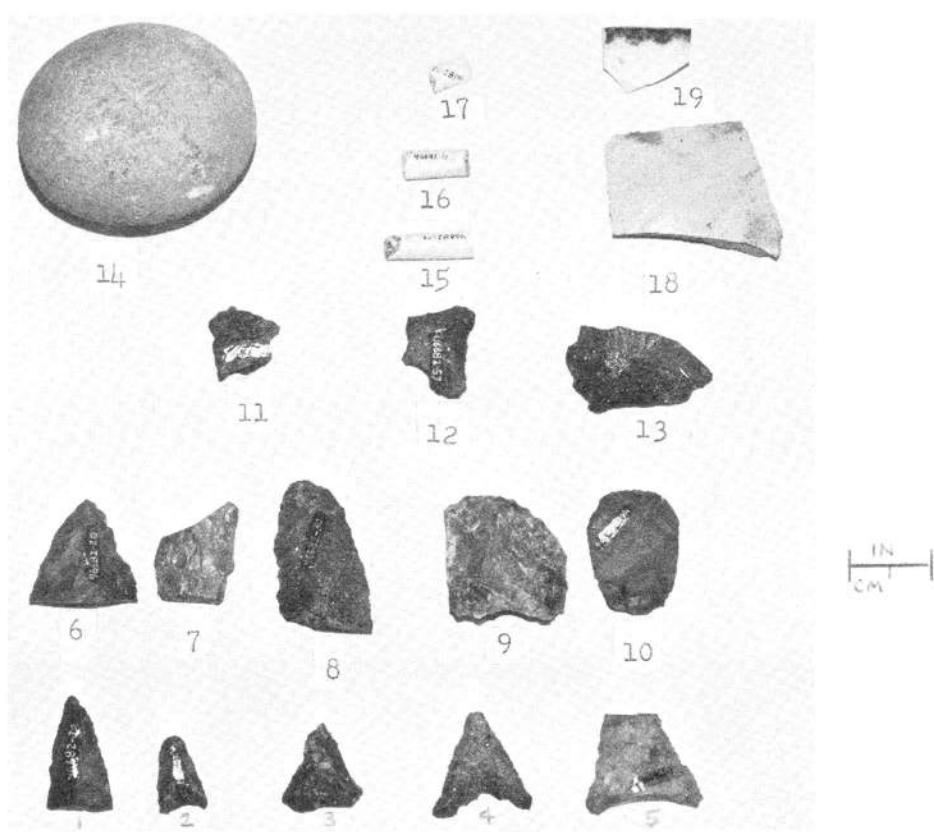
## NYQUIST EAST

1-6, scrapers  
7, 8, 10, triangular points  
9, 11, 12, bifaces  
13, adz fragment

Area D on map  
C on map  
C on map  
C on map



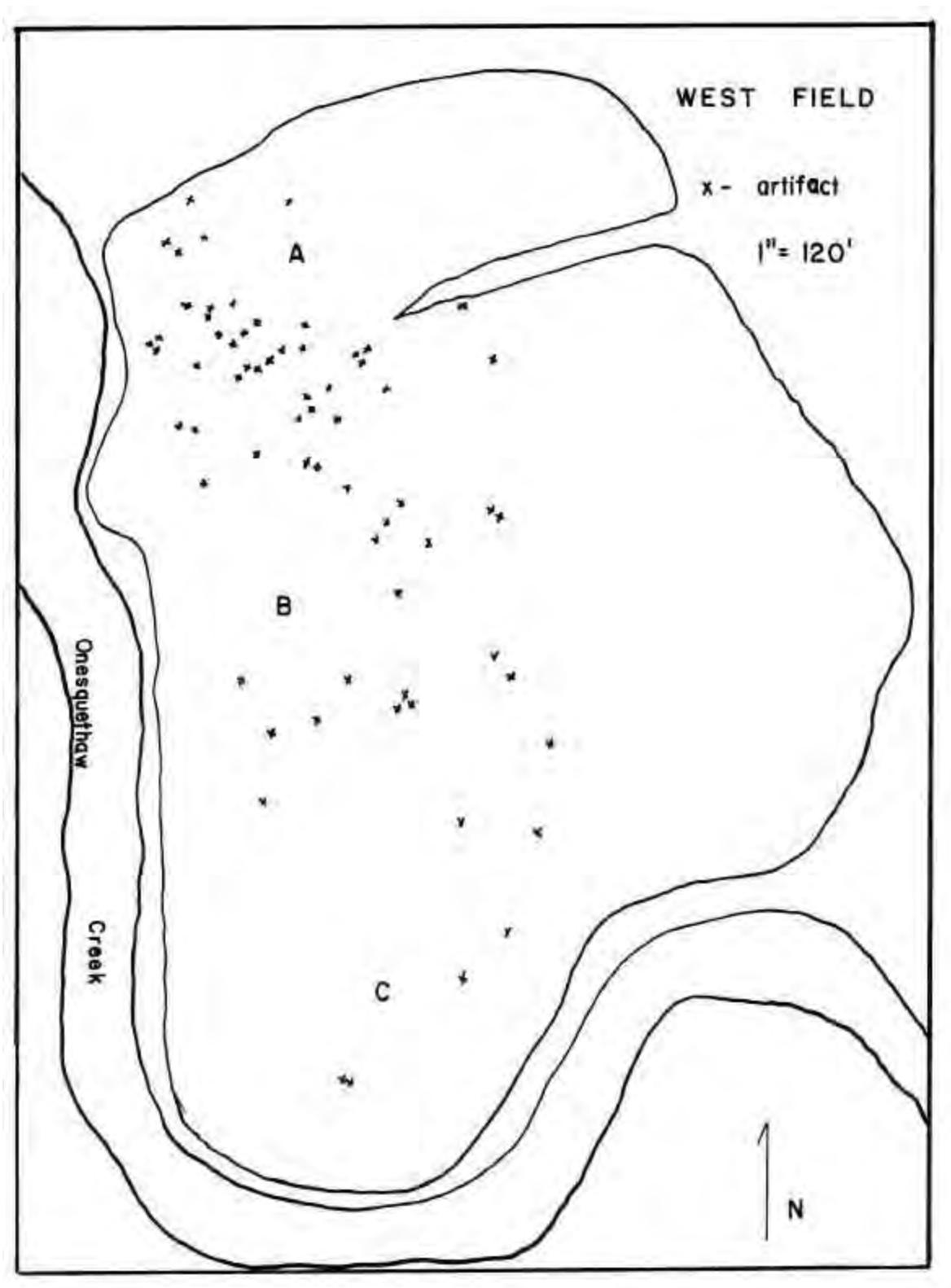
NYQUIST EAST  
pestle Area E on map

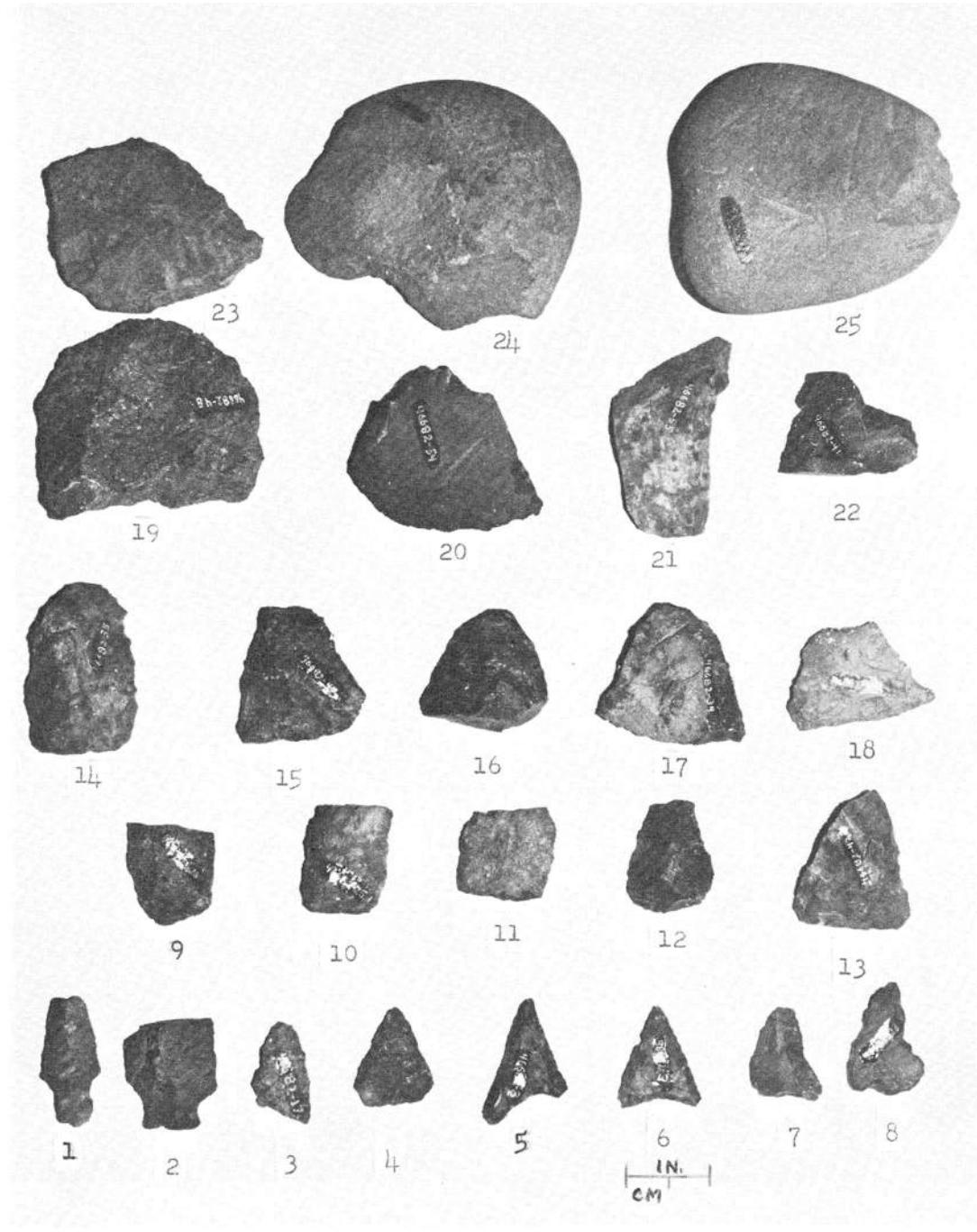


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NYQUIST WEST

- |                                   |                      |
|-----------------------------------|----------------------|
| 1-5, triangular projectile points | Area C on West Field |
| 6, 7, 8, biface fragments         | " C                  |
| 9, 10, scrapers (unifacial)       | " C                  |
| 11, 12, 13 utilized flakes        | " C                  |
| 14, pitted stone                  | " C                  |
| 15-19, historic material          | " C                  |





## NYQUIST WEST

1-8, projectile points  
 9-23, bifaces  
 24, 25, pitted stones

Area A on West Field map  
 " A  
 " A

While the East Field did not yield any projectiles of these types, a stone pestle (38 cm. in length) was found associated only with a small quantity of chert debris in the northeastern section of the field. This most likely represents a third Late Archaic activity area, distinguished by its location (greater distance from the creek) as well as the material items.

The occupation relating to the Snook Kill Phase of the Late Archaic Period, as evidenced by the Snook Kill Broad Point, is probably the best defined spatially in the field. These projectiles cluster in a small area on the rocky, higher portion in the southeast of the East Field.

Two Perkiomen, style points, although probably a style roughly contemporaneous with the Snook Kill type (Withhoff in Ritchie, 1961), do not fall within the Snook Kill area. They are located to the north and west of the Snook Kill material, associated with a separate concentration of cultural debris indicative of a separate occupation.

The Late Archaic to Transitional Period in the West Field is somewhat problematical. Both the Snook Kill and Perkiomen styles were absent there, but a broken Susquehanna point was found. This may be of interest due to the lack of any isolated Frost Island component in the Hudson Valley, where Susquehanna points have so far only been found in association with other point styles. In the West Field, however, this point must have been isolated, since it could not be associated with the narrow stemmed point of the Late Archaic, or the triangular Woodland points.

The main projectile points of the Early Woodland, Adena and Meadowood, were absent from both these fields. Several thin bifacial blades resembling the Meadowood type were found in the southern part of the East Field, but there does not appear to be any definable cluster in this general area.

The Middle Woodland styles, such as Greene, Fox Creek and Jack's Reef, also were absent from these fields. These types were present in the Jordan's collection, which was viewed by the writer.

The Middle through Late Woodland Levanna type projectile points were the most frequent style in the West Field, while only a few examples were located in the East Field. The variability within this style seems exceptionally wide. Whether this represents the dominance of this style over a long period of time, or is due to functional differences is a problem requiring further investigation. In this regard, one of the asymmetrical examples of these triangular points closely resembles a harpoon point in appearance.

The latest prehistoric occupation is represented by a Madison point in the West Field. Nearby, are products of European manufacture-kaolin pipe fragments and shot.

The historic occupation or utilization, of these fields is further indicated by various crockery fragments, while recent hunting is evident in the presence of plastic shotgun shells.

### Summary

Several tentative statements may be made at this time, concerning the culture history of the Onesquethaw Creek as it is represented by both projectile points and artifact groupings on the Nyquist's Fields.

Only one cluster yielded projectiles of different styles, the northwestern area of the West Field. This was dominated by triangular points of the Woodland Period, but also contained points of the earlier Late Archaic and Transitional, suggesting this was a preferred location throughout prehistoric time.

This cluster also covers the largest area (approximately 120 ft by 360 ft), undoubtedly the result of several occupations over time.

The evidence from the East Field was markedly different. Triangular points were relatively scarce, while two clusters were associated with only Snook Kill and Perkiomen style points.

If we ask why these two fields were seemingly occupied at different times, several suggestions may be offered. The main clue to this problem is probably in the contours of the fields. The East Field has a large, elevated area in the southern section, which is the location of both the Snook Kill and Perkiomen clusters. The later occupations in the East Field, and both the early and later occupations in the West Field are all on the lower, flood plain of the creek.

One explanation for this differential settlement pattern may be fluctuations of the creek water level over long periods of time. For example, lower water levels during the Archaic and Woodland Periods may have been interrupted by higher levels at the time of the Snook Kill and Perkiomen occupations. However, at this time there does not appear to be any evidence to support the notion of changing water levels in the Onesquethaw Creek during these periods of time.

Thus seasonal fluctuation of the creek appears to be a better explanation. High water levels can be observed in the spring, which would necessitate settlement in the higher and dryer portion of the East Field. In the fall, the water level is relatively low, enabling settlement along the creek bank.

This suggests that the occupations in the West Field, in both the early and late periods, along with the late prehistoric occupation of the East Field were either fall or winter sites. The Snook Kill and Perkiomen occupations may have been spring or summer ones.

A comparison of the assemblages from these clusters is required to test this hypothesis. For example, nutting stones are absent from the higher occupations as anticipated, since spring occupation sites would not have nuts available for use unless they had been stored.

All of the artifact clusters in the Nyquist's fields probably represent extremely small campsites. The larger concentrations are believed to represent only more of these small campsites (several occupations over time), rather than larger populations. The assumption underlying this reasoning is that the larger the population, the greater the artifact diversity, since more activities must be performed. This type of diversity was not observed in the Nyquist's fields. For example, pottery is associated with women's activities and would not be expected to appear in any quantity on a male-oriented hunting camp. Thus sherds would be expected on any large settlement of Woodland times, and were not present here.

All of the artifact concentrations are located along the creek bank, either the present one or one at high water level times, as suggested by the contours. Only three artifacts were located more than 250 ft. away from the creek bank in the East Field. One of these artifacts was a stone pestle (previously mentioned), while the other two were rough, bifacially worked pieces of chert of undetermined function.

The sites examined in the Onesquethaw Creek Historic District appear to represent only a portion of the subsistence-settlement system, which operated prehistorically in the Mid-Hudson River Valley. Ritchie and Funk (1973) suggest that the aboriginal population of this region adapted to both "riverine" and "inland" zones through a patterned, seasonal-subsistence cycle. This cycle included larger, spring-summer camps along the Hudson River and smaller, fall winter camps inland. A wide variety of activities is suggested by the artifacts from these spring summer sites, while the fall-winter ones appear to be small, specialized, hunting camps. In general, it is within this latter category that the sites from the Onesquethaw Creek Historic District, an inland area, fall.

#### ACKNOWLEDGMENT

We greatly appreciate the cooperation given to us by the Nyquists in permitting our investigation on their land.

Dr. Funk offered several suggestions during the course of this study and commented on an earlier draft of this paper.

Karen Hartgen is credited for locating several sites in the study area, along with aiding in the collection. The artifacts and their contextual information are in the New York State Museum in Albany.

#### References

- Funk, R. E.  
 1965 The Archaic of the Hudson Valley: New Evidence and New Interpretations. *Penn. Archaeologist*. 35 (3-4): 139-160.
- Ritchie, W. A.  
 1961 *A Typology and Nomenclature for New York Projectile Points*. N. Y. State Museum Science Service Bulletin. 384

- 1964 *The Archeology of New York State*. Natural History Press. Garden City, N. Y.  
Ritchie, W. A., and R. E. Funk  
1972 *Aboriginal Settlement Patterns in the Northeast*. N. Y. State Museum and Science Service Memoir  
20.

## THE DAY, DYNAMITE, AND LIMEKILN ROCKSHELTERS

Paul L. Weinman  
Thomas P. Weinman

Auringer Seeyle Chapter  
Auringer Seeyle Chapter  
Morgan Chapter

### Day Rockshelter

The Day Rockshelter (Cox 38) excavated on the property of Ralph Day in the spring of 1972 is 3/4 mi. south of Bronks Lake, 2 mi. west of Flint Mine Hill and 4 1/4 mi. west of the Hudson River in Green Co., N. Y. Like a number of small rockshelters found in this area, this site is beneath a block remnant of Eastern Onondaga limestone interbedded with nodules of grayish-blue flint.

The oval-faced overhang projects southward from a hillside roughly 50 ft. above the valley floor. The 1926 USGS 15 minute quadrangle map shows a rivulet running from Bronks Lake to within 100 yd. of the shelter. At a more northern point, this rivulet splits off into what becomes Coxsackie Creek, which empties into the Hudson River. At present, 3 small ponds have been constructed near the site and are maintained by several springs. The overhang, 4.5 ft. thick, rises from a height of 1.5 ft at the back wall to 10 ft. at the face, protecting an area 16 ft wide. Unfortunately, a huge, flat slab had fallen from the roof, covering practically all the living floor. This rock is nearly 10 ft. wide, 11 ft. long and 2 ft. thick, leaving only a 2-3 ft. wide excavatable area encircling the block. When the site was discovered, we found several late Middle Woodland sherds resting directly on this block, and later found similar pieces from the top to near the bottom of the excavated midden, demonstrating that at least one group had stayed at the site after the block had fallen.

Of the 284 artifacts recovered, 263 were potsherds, and of these, 242 were found in a wedge-shaped midden approximately 4 ft. long, 4 ft. wide, and 18 in. thick. This midden overlay and blocked a damp-air fissure at the west corner of the shelter. Since this area contained nearly all the artifacts, bone, chippage and midden dirt, we assume that the last Indian occupants threw most of their debris into this corner to seal off the uncomfortable draft and fill up the hole. The remainder of the back wall and most of the front of the block were raised to the rock's surface by soil creep and wash from high ground immediately adjacent to the shelter's east end.

There was some stratigraphic evidence for a temporal sequence of occupation. Several cut nails and 2 fragments of 19th Century crockery were found on the surface and in the upper few inches of excavation. At 2 in. deep, near the southeast corner of the fallen block, we uncovered a Madison point, a straight-base drill piece, a split deer bone, and 8 fire-cracked rocks indicating a brief visitation by Late Woodland folk. Along with the late Middle Woodland sherds found on the block were 13 others (5 with rocker-dentate stamping and cordmarking) plus a split bone awl, an antler flaker, and deer bones, all between 6 and 13 in. below the surface outside the overhang. To complete the cultural-stratigraphic evidence, we discovered a Genesee type projectile point of the Late Archaic period, deer bones, and a turkey bone at 22 in. deep, 4 in. below the deepest evidence for the late Middle Woodland component. Since the Genesee point was found a little more than 4 ft. from the back wall and just 2 in. above a yellowish-brown, culturally sterile Stratum II, we suspect that the block fell sometime between the Late Archaic and the late Middle Woodland, covering other evidence of preceramic occupancy.

The 242 sherds found within the midden comprised at least 4 separate late Middle Woodland pots, which seem to be of the Hunter's Home phase (Ritchie, 1969). These include 56 exterior wicker-weave fabric-impressed sherds from one pot, similar to sherds that Funk (nd)

found at the nearby Black Rock Site at Athens-On-The-Hudson. The vessel lip is slightly everted, flattened and bears transverse cord-impressed markings.. The interior shows vertical cord marking approximately 2.5 in. from the rim into the inside of the pot. These sherds average 10 mm in thickness with medium fine grit. The second pot is represented by 3 rim sherds with deep corded punctate decoration (probably done with a cord-wrapped paddle edge) on a slightly pinched-out rim. The interior has inch-long oblique cord-wrapped paddle markings from the lip down. This was a large vessel; the sherds averaged 13mm in thickness with medium grit. The third pot (4 rim sherds) is of the Jack's Reef Corded type (Ritchie and MacNeish, 1949) with vertical cording on the exterior and horizontal cording inside the lip. The lip is rounded, everted and cord-marked. Average thickness is 10 mm with coarse grit. The fourth pot (2 rim sherds) is of the Vinette Dentate type (Ritchie and MacNeish, 1949) with horizontal dentate stamping on the exterior, and vertical dentate stamping on the interior of the lip, which is slightly everted and rounded rim. Thickness averaged 10mm with coarse grit. The 69 marked body sherds unassigned to any one pot evidence both cording and dentating (in many cases it is difficult to tell which), and averaged 10-11mm in thickness. The remainder of the sherds were smoothed over and averaged 10-11 mm in thickness.

Other artifacts pertaining to the late Middle Woodland zone were: a Greene type projectile point recently assigned to that period (Ritchie; 1971; Funk, n. d.); 2 straight drills; a flake endscraper-knife; a large ovate knife suggestive of Petalas blades known to be of this period (Funk, n. d.); an endscraper; flake knife; 3 worked flint pieces; and 3 pebble hammerstones. Except for the quartzite hammerstones, all stone objects were of Normanskill flint rather than the Eastern Onondaga flint in the overhang. However, much chipping debris of the latter was found in the midden. Two split bone awls and 2 antler flakers round out the tool ensemble.

In the identifiable food remains in the late Middle Woodland midden were deer, turkey, box turtle, woodchuck, fresh water clam, and sturgeon. That these folk carried sturgeon at least 4 1/2 miles from the Hudson River is a bit surprising, but is one indication that small, backcountry rockshelters were occasionally utilized in warm seasons as well as in fall and winter.

#### Dynamite Rockshelter

Eleven yards NNW of the Day Rockshelter is the Dynamite Rockshelter, which, unfortunately, turned out to be an archeological dud. We excavated the site with the help of Hetty Jo Brumbach, a SUNY Albany graduate student working for Directed Research credit. The 11 ft. long and 4-5 ft. wide living floor was covered by 2 large Onondaga limestone blocks that had been upturned against each other to form a 6-7 ft. high triangle with open ends to the west and east. The western opening had been enclosed with modern bricks, while the eastern opening was blocked by an iron door as well as bricks, all constructed when the shelter was used to store dynamite during a WPA project of the 1930's. As a result of this occupancy, modern trash such as quahog shells, leather scraps, nails, and crockery were mixed with aboriginal debris. The disturbed Indian artifact zone was a-dark brown soil, 8-12 in. thick, that overlay a culturally sterile yellow-brown gravelly soil. Indian artifacts (all of Eastern Onondaga flint) were: an ovate knife; 2 keeled endscrapers; 1 thumbnail scraper; 1 flake scraper; 4 worked flint fragments and 4 utilized flint flakes. The food remains identified included: deer; duck or goose; dog or wolf; squirrel; rabbit; and several small birds. Unfortunately, the lack of diagnostic artifacts makes it impossible to identify the Indian occupants, and what (if any) relationship there was with the Day Rockshelter. The duck or goose bones, however, do suggest a non-winter use of the site.

#### Limekiln Rockshelter

The Limekiln Rockshelter, 3 1/2 mi. NNE of the Dynamite-Day sites, is located under an east-facing over hank of Onondaga Limestone, approximately 30 yd. east of Limekiln Road, Greene Co., New York, 3 mi. west of the Hudson River. The overhang is 19 ft. long and 3-6 ft. above the living floor. Stratum I, containing a large end scraper, a flake knife, and a split deer bone, was an 8 in. thick dark brown humus that overlay a 4 in. thick brown Stratum II,

which yielded a quartzite hammerstone. Both strata contained evidence of primary and secondary chipping of the flint found in the overhang. Although there is no suggestion of which cultural group visited the site, it is another example of the aboriginal use of natural shelters for brief seasonal periods.

#### Bibliography

Funk, Robert E.

n.d. *Recent Contributions to Hudson Valley Prehistory*.

Ritchie, William A.

1969 *The Archaeology of New York State*. Natural History Press, 355 pps. Garden City, N. Y.

1971 *A Typology and Nomenclature for New York Projectile Points*. (revised edition) New York State Museum and Science Service Bulletin 384. Albany, N. Y.

Ritchie, William A. and Richard S. MacNeish

1949 The Pre-Iroquoian Pottery of New York State. *American Antiquity*, V. 15, No. 2:97-124. Menasha, Wisc.

#### THE HUNTER BROOK ROCKSHELTER

Robertta Wingerson

Metropolitan Chapter

Richard Wingerson, Illustrations

Metropolitan Chapter

The Hunter Brook Rockshelter is located about 4 mi. east of the Hudson River in the Town of Yorktown, Lake Mohegan quadrangle. The map coordinates are 41° 15'35"N by 75°50'30"W. The site lies some 600 ft. east of Hunter Brook which once flowed south 1.5 mi. to join the Croton River 4 mi. from the point at which the Croton enters into the Hudson River. A dam creating the New Croton Reservoir in 1904 has backed the water up to the Hunter Brook valley to within 50 ft. of the shelter.

The shelter was formed by the over-lap of several large rock slabs probably torn from the ridge above as the glacier moved across it in a southerly direction. The ridge and the shelter rocks are both of a similar pyroxinitite of supposed Pre-Cambrian age, a part of the Cortlandt complex. The shelter faces south, looking down the Hunter Brook valley at an elevation of 220 ft. and some 20 ft. above the brook at normal flow.

When the site was first discovered, the shelter provided little more than squatting room under the overhang, but as excavation proceeded to the 36" level the sheltered habitation area was enlarged to a more comfortable 6-8 ft. wide and 10 ft. long, providing adequate head-room for Archaic occupants.

The attraction of the nearby Hudson River as a plentiful food source supplying oysters, water fowl and anadromous fish, may account for the use of the shelter by travelers through the Croton River valley (itself affording fish and fresh water mussels) an important travel way from the Hudson to Connecticut and the lands beyond. The first occupants may have been post-Paleo hunters following game herds migrating through the valley. Artifacts found indicate that it may also have been used as a Fall camp site for nut gathering activities.

Eight full 5 ft. squares and 4 partial squares were excavated. Horizontal troweling was used in excavating and the provenience of each artifact was recorded using both horizontal and vertical controls. Much of the fieldwork was accomplished with the generous help of Rob Germeroth and Jane Olsen of the Museum and Laboratory for Archaeology at Briarcliff College field party.

A scattergram of artifacts recovered indicates a heavy concentration beneath the overhang and immediately in front of the shelter area. Unfortunately, about 6 ft. from the overhang the bank was cut and the soil removed for fill in building the road (Baptist Church Road) that runs past

the front of the shelter some 6 ft. below and about 10 ft. from the edge of the overhang. It is likely that this area in front of the shelter since removed would have been camped on and that the down-slope would have received some of the camp debris of the occupants. Some of the record of the site occupation has surely been lost.

### Stratigraphy

There was no real stratigraphy throughout the period of main occupation, although a natural soil profile was evident. Soil accumulated by wash from the slope into which the shelter is set, by flaking of overhead rocks, by wind blown particles, by the decay of vegetation and by the small addition of the camp remains of man. This soil build-up was at a slow but constant rate; there is no evidence of any marked change in soil accretion through Zones A, B and C, although Zone C has been physically altered after deposition. Zone D resulted from markedly different conditions of deposition. The depth and thickness of the soil zones was measured at the center square on the east-west profile. The zones slope upward towards the sides of the hill so that they are slightly bowl-shaped in profile.

*Zone A:* The humus layer of 4 to 6 in. was designated Zone A.

*Zone B:* A yellow-brown layer 16 to 23 in. thick consisting of fine particles intermixed with small pebbles. This zone contained almost all the diagnostic artifacts found on the site. Scattered throughout were flecks of charcoal, lithic debris and occasional lenses of blackened soil, the only remains of hearth activity.

*Zone C:* An 8 in. layer of sand and pebbles consolidated by the cementing action of oxidized iron present in the soil due to the decay of the pyroxinite. Excavation uncovered two small springs at 27 in. in the rear of the shelter that seeped intermittently during the spring and early summer. They flowed across the upper surface of Zone C and seeped through that layer and down the slope. The effect of the flow was to wash the fine particles from this zone on the west side of the shelter (the direction of flow) and to cement the remaining pebbles, making excavation very difficult. This layer was culturally sterile, producing not even a flake, but its surface at 26-28 in. in depth had been camped on and produced evidence of heavy occupation. Charcoal smears and lithic debris were scattered on the hard-packed surface into which were dug five hearths. It was around the perimeter of one of these hearths that two triangle points of a distinct type were found pressed into the surface of the occupation floor. These have since been named the Hunterbrook triangle (Brennan, 1974) see front cover.

*Zone D:* This layer was an abrupt change in soil type. It consisted of very fine particles of an off-white color that darkened to a grey-brown on exposure. It may be of aeolian origin deposited during a dry post-glacial period. On its surface was an oval hearth and alongside a hammerstone, a quartz core and a teshoa. No other evidences of occupation were found. Inadequate charcoal was recovered, leaving its age to speculation. Based on the depth and its relationship to other artifacts found of known age, it may be the remains of a small campsite of Early Archaic times.

### Features

Features 1 to 5 were hearths dug into the Hunterbrook occupation floor on the upper surface of the C Zone 27 in. below the surface. The one other hearth was Feature No. 7, on the surface of D Zone. Feature No. 6 was a rectangular stone construction some 2. 5 by 5 feet, described below. There was no evidence of pits or post molds.

*Feature No. 1:* hearth, basin-shaped, 16 by 22 in. and 4 in. deep, almost completely ringed with stones, with burned earth at the bottom. A part of this feature extending to the west was a pit 6 to 9 in. deep, 30 by 36 in. in outline, filled with stones, some fire-cracked and heat-reddened. This was a probable baking or roasting platform. It was located in square 1N2W.

*Feature No. 2:* hearth, 20 in. in diameter and 5 in. deep, filled with soft buttery humus flecked with charcoal. Stones formed the north rim. Three flake scrapers and one grubbing tool were found in or near the rim. This hearth was found in square 1S2W.

*Feature No. 3:* hearth, 18 in. in diameter and 5 in. deep, filled with soft humus and charcoal flecks, partially ringed by eight stones. Two jasper flake scrapers and two Hunterbrook triangles were outside the ring. This feature occurred in square 1S1W.

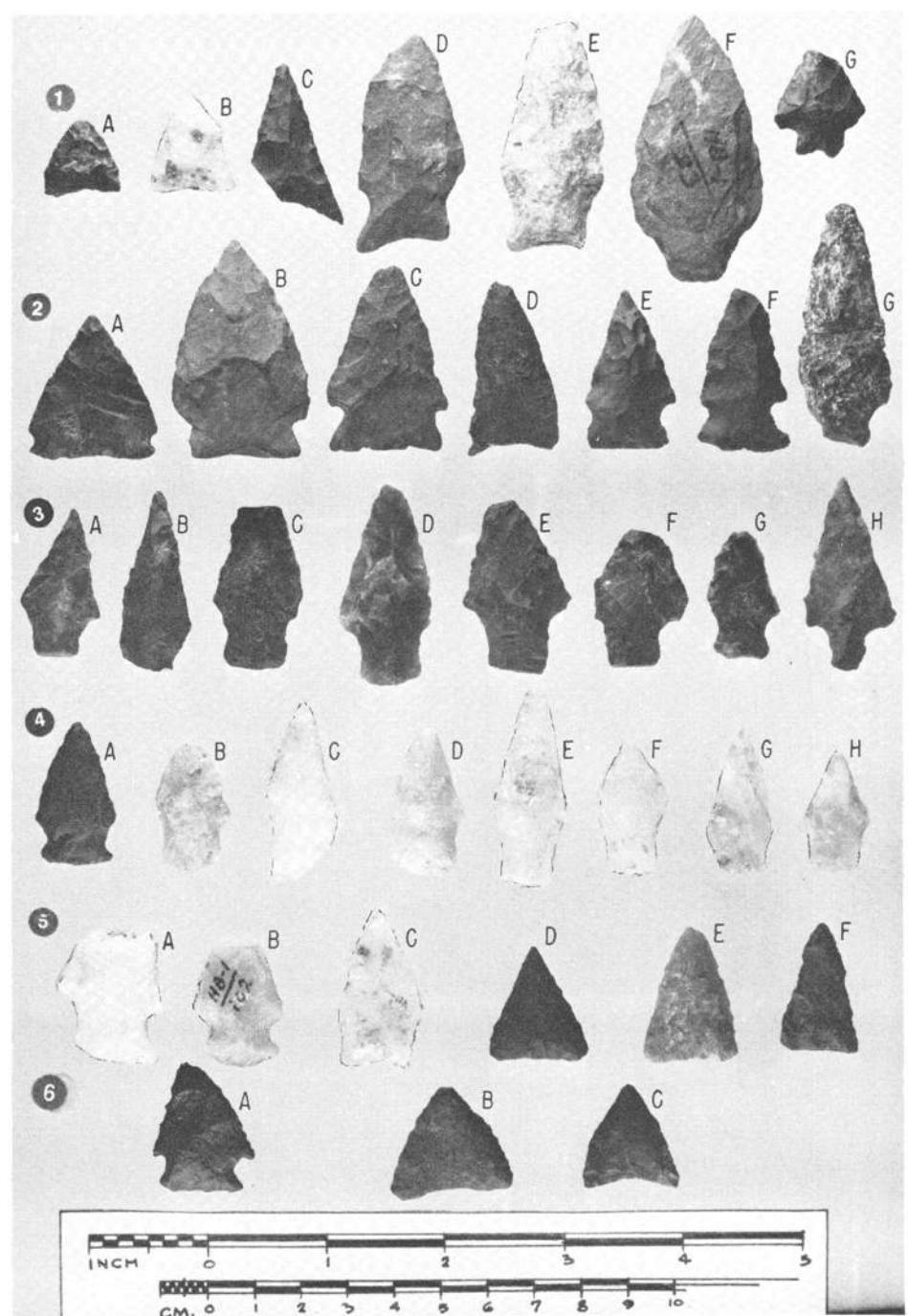


Figure 1. Projectile Points. Row 1. A, Madison-like point; B and C, generalized triangles; D and E, fishtail points; F, dwindle-stemmed point; G, LeCroy bifurcate. Row 2. A, Kittatinny Point; B and C, Vosburg-like points; D, Brewerton eared triangle; E and F, Brewerton side-notched; G, Lackawaxen expanded stem point. Row 3 and 4. Points of the Taconic tradition. Row 5. A and B, untyped side-notched points; C, broad-stemmed point; D, E and F, Beekman triangles; Row 6. A, Palmer-like Point; B and C, Hunterbrook triangles.

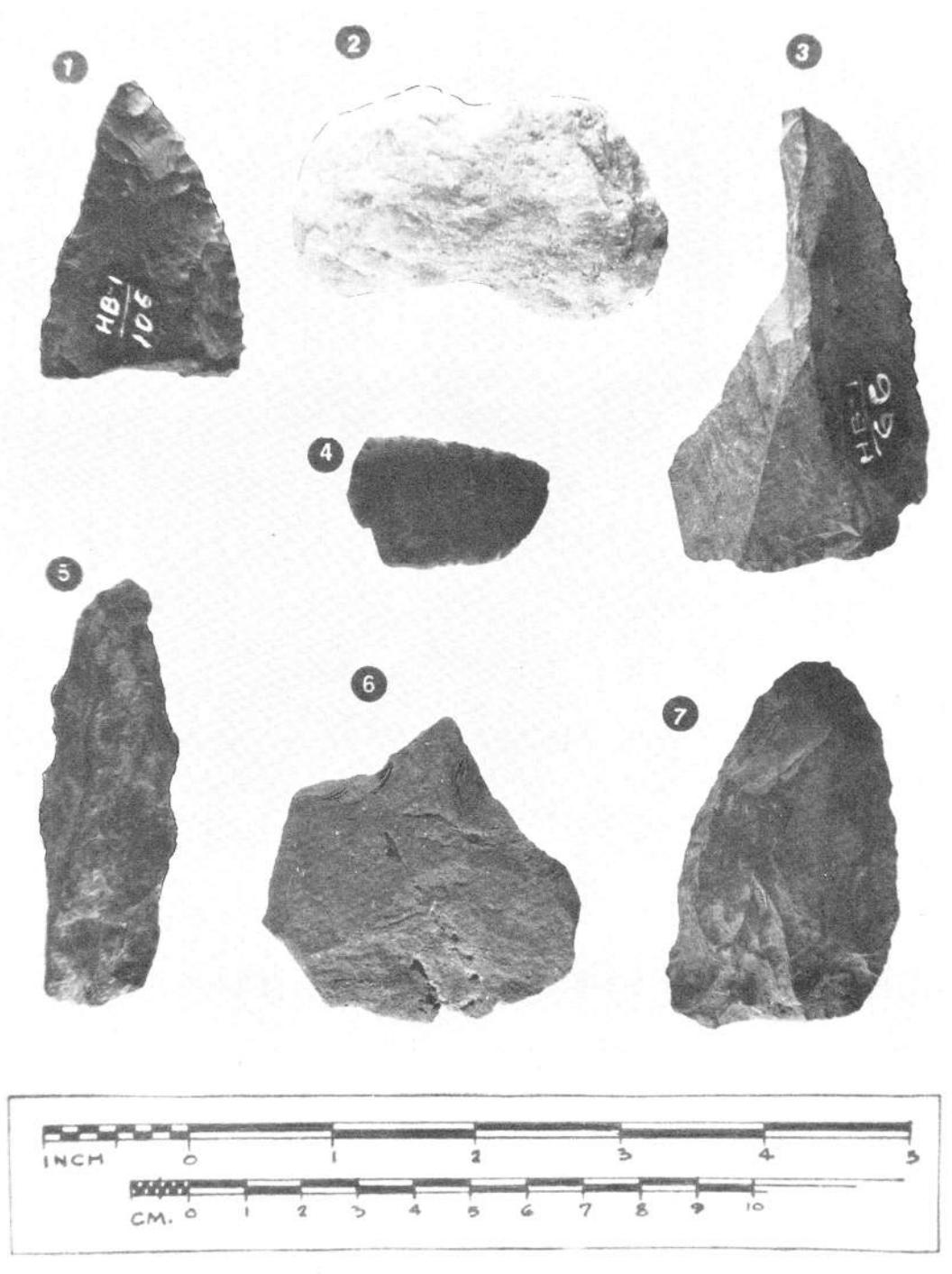


Figure 2. Chipped Stone Artifacts. 1, bifacial flint knife found with the Palmer-like point; 2, spear thrower weight of pink quartz; 3, unifacial slate knife; 4, small flint flake knife; 5, bifacial flint knife; 6, large graver of sandstone; 7, bifacial flint knife.

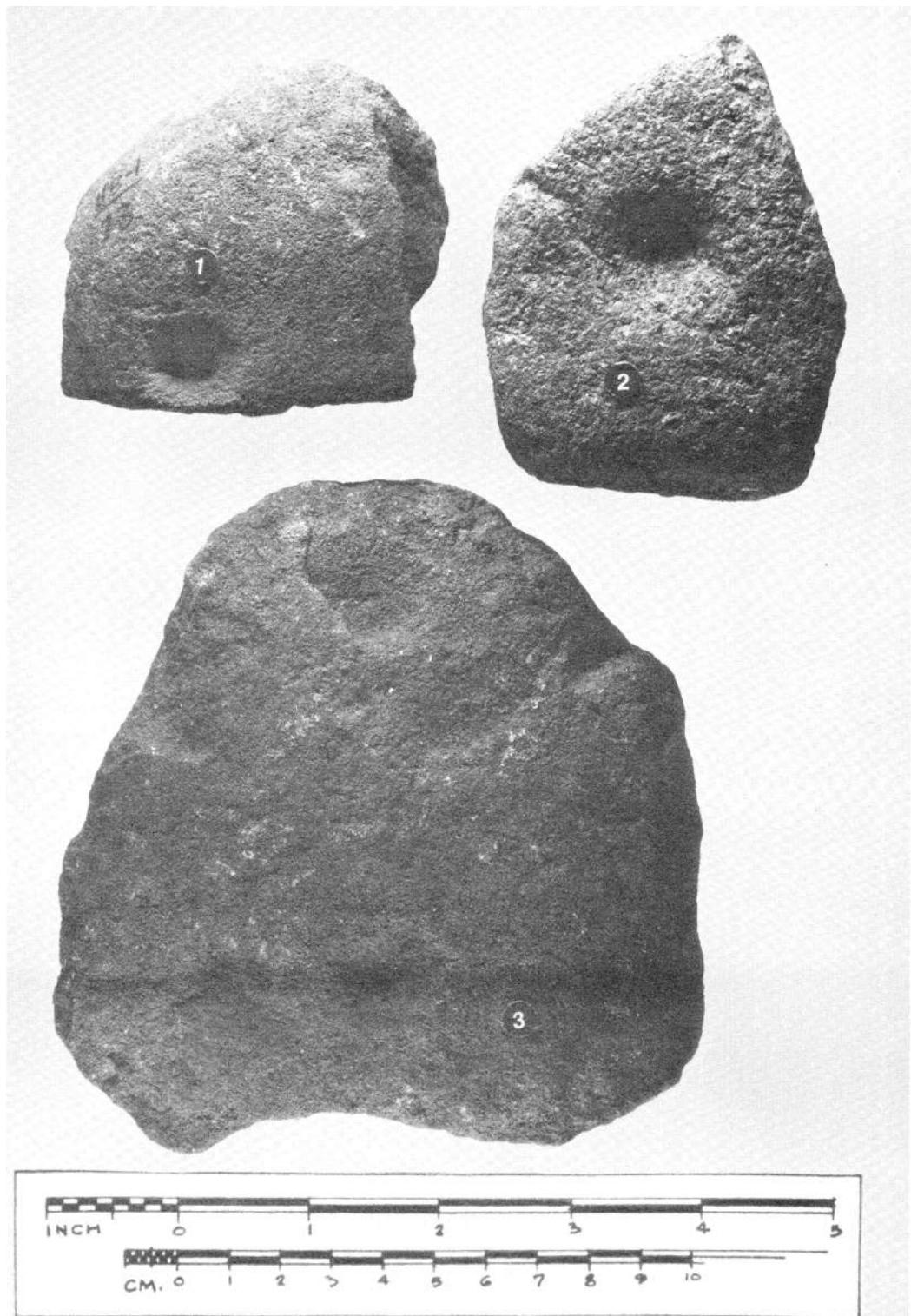


Figure 3. Pitted "nutting" Stones. 1, sandstone found at 6"; 2, Pyroxinite found at 6"; 3, sandstone found at 13".

Figure 1  
Projectile Points

	No.	Depth	Lithic Material
Early Woodland			
Madison-like	1	4"	flint
Transitional			
Fishtail	2	6"	quartzite, shale
Archaic			
Taconic tradition	16	6-14"	9 flint, 7 quartz
LeCroy bifurcate	1	6"	flint
Generalized triangle	2	6, 10"	flint
Dwindle-stem	1	8"	argillite
Brewerton			
side-notched	2	10"	flint
eared triangle	1	12"	flint
Vosburg-like	2	12"	red slate
Kittatinny	1	12"	flint
Lackawaxen	1	12"	argillaceous shale
Beekman triangle	3	14, 18, 23"	2 flint, quartzite
Side-notched (untyped)	2	15, 16"	quartz
Broad stemmed	1	16"	quartz
Palmer-like	1	20"	flint
Hunterbrook triangle	2	27, 28"	flint, quartzite

Figure 2  
Other Chipped Stone

	No.	Lithic Material
Knives, flake	6	2 flint, 2 slate, 2 sandstone
Knives, bifacial	11	flint, 1 quartzite, 1 chert, 3 quartz
Scrapers, end	2	jasper
Scrapers, side	4	3 flint, 1 jasper
choppers	4	quartzite
Spearthrower weight	1	pink quartzite
Teshoas	10	1 chert, 9 sandstone
Cores	3	2 quartzite, 1 quartz

Figure 3  
Rough Stone

	No.	Lithic Material
Hammerstones	12	9 sandstone, 2 quartzite, 1 pyroxinite
Pitted stones	3	2 sandstone, 1 pyroxinite
Anvil-mortar, large	1	quartzite
Hammer stone - anvil	1	sandstone
Mortar, small	1	sandstone

*Feature No. 4:* hearth, 15 by 24 in. and 4 in. deep, filled with soft earth and charcoal smears, partially ringed by six stones. Four utilized flakes and a sandstone teshoa were found in it. It occurred in square 1N2W.

*Feature No. 5:* hearth, elliptical basin 12 by 30 in., soft charcoal stained fill, fire-reddened bottom at 6 in. Several crude tools were in the hearth and around the rim, including a large quartzite preform with possible muller use, a large teshoa chopper, a hammerstone, a teshoas knife, a white quartz core and three greasy polished quartzite cobbles of undetermined use. This hearth was found at the rear of the shelter (where an opening in-roof provides a natural chimney) in square 2N2W.

*Feature No. 6:* a stone berm on the east of the shelter opening, running at right angles (south) from the outer wall of the shelter to the edge of the bank, 8 ft. in length. The average width was 2.5 ft. Upended boulders formed the outer sides, with rubble fill and soil between. The base was at the bottom of the C Zone at an average depth of 35 in. and some of the stones extended into the B Zone at 22 in. below the surface. The function of this structure presents a puzzle but is, perhaps, best explained as a means of diverting the water from the spring at the rear of the shelter. Former users of the site may have returned to find it wet and constructed the wall to insure a dry area on the east side, with the outer wall of the shelter providing protection from the wind and weather. This feature was located in square 1S1W.

*Feature No. 7:* hearth, elliptical pit 36 by 18 in. dug into the surface of Zone D, 8 in. deep. Two stones were set in the south rim, where a hammerstone, a teshoa and a quartzite core were found. This hearth was in square 1S1E.

#### Artifacts

*Zone A.* This zone produced sparse evidence of Woodland occupation. One cobalt blue trade bead was found at 2 in. below surface and a small Madison-like triangle of black flint was found at 4 in. The only pottery found on the site were two small incised rim sherds not large enough for proper identification.

*Zone B.* Most of the projectile points and other lithic artifacts were found in the upper half of this zone. The varied point types and cultural affiliations here represented are directly related to the location of the site within the intersections of regional cultural boundaries. Here at the northern limits of the Middle Atlantic Seaboard Cultural Province, suggested by Stephenson (1963), are found the Taconics, the fishtails, the Palmer-like point, the LeCroy, the Kittatinny and the Lackawaxen of this province. The Lackawaxen is a component of the Delaware Valley Archaic tradition which Kinsey considers to be a part of the larger Seaboard Province (Kinsey 1972). With them are found the Brewerton side-notched, the Brewerton eared triangle and the Vosburg-like points of the Laurentian tradition of the Northeast extending to its southern limits.

The Transitional period is represented by two fishtail points at 6 in. , just under the humus. A triangular knife of white quartz and a notched bannerstone of chipped pink quartzite may be associated with the fishtails.

A number of Archaic point types were excavated, the most numerous being the stemmed Taconics which are the predominate Late Archaic type in the lower Hudson. They represent over one third of all points recovered, ranging from 6 to 14 in. in depth.

The most temporally recurrent morphologic type is the triangle. The oldest and deepest is the Hunterbrook type at 27 in. Two spirate triangles, having ground bases, occur at 18 and 27 in. A Beekman type made of black flint with a ground base was found at 14 in. Two generalized triangles occur at 6 and 10 in., the lower one of black flint with a V-base and the other of white quartz. The Madison-like point was recovered from the humus zone at 4 in.

The spirate Beekman-like triangles were found to be contemporaneous with Taconic tradition at the Twombly Landing site and the Dogan Point site (Brennan, 1970). At the Hunter Brook Rockshelter they preceded that tradition and, with the Hunterbrook, suggest a tradition of triangles that may help to fill a cultural gap in the Middle Archaic.

The Hunterbrook triangles are medium sized, nearly equilateral points with excavate sides. The yoke base is ground, with noticeable thinning up to 1/3 the length of the point. This type had been found on sites in the area but without positive indication of their place in the cultural sequence. The accumulation of soil from the Hunterbrook occupation to the Taconic

period of some 5,000 C-14 years ago was as great as from the Taconic to the present. This was an obvious clue to the age of these triangles and was further reinforced at the end of the 1974 digging season by the find of the Palmer-like point 1 in. *above* the Hunterbrook level. Coe's corner-notched Palmer is similar to Broyle's small Kirk Corner-Notched but has basal grinding. In the Carolina Piedmont this type is placed chronologically in the Early Archaic at about 9, 000 B. P. (Broyles 1971).

It had been hoped that sufficient charcoal would be recovered for a C-14 date on this level but most of the charcoal had been leached from the hearths leaving only charcoal smears and flecks too small to meet the minimum requirements for a reliable sample.

In 1973 three triangles of the Hunterbrook type found on the Piping Rock site being dug by Louis Brennan with the crew of the Museum and Laboratory for Archaeology at Briarcliff College, were dated by shell from a heap lying directly above them at  $5135 \pm 155$  C-14 yrs. (GX-3238), 5710 B.P. or 3760 B.C. (MASCA). This represents a stop-date forward and this author believes that the Hunterbrook triangles are considerably older than this.

The broad-stemmed projectile point found at 16 in. is similar in type to 3 points dated at Dogan Point from oyster shell deposited above them. The date,  $5075 \pm 160$  C-14 yrs. (GX-1919), 5680 B.P. or 3730 B.C. (MASCA), again is a stop-date forward. (Brennan 1974).

Two untyped broad side-notched points were excavated at 15 and 16 in. They are rather casually made, one of white quartz and one of pink quartz, with markedly excurvate bases and with moderate grinding in the notches and on the base. They may be a parent type to the Twombly side-notched point type associated with steatite at the Dogan Point site and with Vinette I pottery at the Twombly Landing site (Brennan 1970).

A LeCroy bifurcate point was recovered on the same level where the Taconic points were first encountered and while this appears to be temporally inconsistent there was no evidence of soil disturbance.

The Kittatinny point, whose identification was confirmed by Kraft, is a newly defined type (Kraft 1975) found in the Delaware Valley, central New Jersey and occasionally in the lower Hudson Valley. In the Tocks Island area it has been dated at  $4980 \pm 110$  C-14 years ago.. This appears consistent with its position at the rockshelter where it occurs at the same depth as the Brewerton, Vosburg and Lackawaxen type points.

Other lithic artifacts are culturally non-diagnostic and occur throughout the occupation. They are mainly tools associated with hunting and hearth activity, with the possible exception of three pitted stones and a shallow mortar. These may represent Fall camps for nut gathering. The wooded slopes of the watershed were undoubtedly rich in acorn, hickory and walnut as they are today. The remains of old chestnut stands can still be seen. The shape of some of the tesho, as suggest that they could well have been used as grubbing tools to dig edible roots such as the nearby sweet flag, cattail and Indian turnip.

An attempt was made to recover organic remains to augment the picture of camp activities. Flotation on the fill in two hearths at the 27 in. level and one at the 36 in. level did not result in the recovery of any organic material. High soil acidity made conditions for the preservation of any organic material poor and none was recovered at any level.

#### The Hunterbrook Triangle Point

**General Description:** A medium sized, equilateral (80%) triangle with a concave base. The base is moderately to heavily ground with bifacial thinning about 1/3 the length of the point on all specimens.

**Sample Size:** 24

**Size:** 67% are 1" to 1 1/4" in length, 25% are 3/4" to 1", and 8% are 1 5/16" in length.

**Material:** All points are made of silicate in the following percent: Flint 55%, Quartz 33% and Quartzite 12%.

Age: At the Hunter Brook Rockshelter they were several inches below the level of points of a known age of some 5,000 years B. P. and in close stratigraphic association with a Palmer-like point. At the Piping Rock site in Ossining, New York, they were relatively dated by shell lying above them. Thus they are older than  $5135 \pm 155$  C-14 years (GX-3238).

Distribution: Hunterbrook triangles are presently known from sites along the lower Hudson River and its immediate inland environs.

Remarks: Almost half of the specimens show a break in the curve of the concave base about 1/3 its length produced by the technique used in the bifacial thinning of the base. Examples: Front Cover; Row 1. B, C, D; Row 2. B, D, E; Row 3. B. C. D; Row 4. A, C. One specimen shows slight serration. Fig. 4, Row 3. D. Fig. 4 Hunterbrook Triangles. Row 1. A and B from the Hunter Brook Rockshelter; C, D and E dated at the Piping Rock Site at  $5135 \pm 155$  C-14 years. Row 2. A and B from the Chadeayne Farm collection; C, D and E from the Piping Rock site. Row 3. Piping Rock Site. Row 4. from the Hanotak Rockshelter.

#### Debitage

RecovereddebitagefromalllevelsreflectstherelativeavailabilityoflithicmaterialsexposedintheHunterBrookstreambed.Thesourceofthesepebblesandcobblesistheglaciatillthroughwhichthestreamflows.Thepercentagesoflithicdebitageareshowedinthefollowingfigures:quartzite48%,quartz10%,flint19%,sandstone15%,slate7%andjasper1%.Oneprojectilepointrecoveredwasmadeofavarietyofquartziteforwhichchippagewasalsorecovered,thustheprobabilitythatitwasmadetononthesite.Dressingflakesofablackflintindicateresharpeningofafewknivesorpointswhichwerenotrecovered.Thesmallnumberofjasperflakesprobablyrepresenttheretouchofabladebroughttothesitesincejasperoccursinfrequentlyinthe glaciattill.Mostofthedebitageis theresultoftheshapingofcasualcrudeimplementsforuseaschoppers,knivesandscrapers.Manysthesehavebeenrecoveredsincetheywereintendedtoservethemmediatecampneedsonlyandweryleftonthesite.

#### Conclusions

The Hunter Brook Rockshelter was occupied primarily during the Archaic period. It was used intermittently by bands of hunters or small family groups traveling through the valley of the Croton River. With the advance of time and the accretion of soil, the function of providing adequate shelter was lost, so that after the Late Archaic period there is little evidence of its use. Three separate cultural traditions appear to have co-existed over a long period of time in this region- the stemmed point, the triangle and the notched blade.

#### References

- Brennan, L. A.
- 1970 The Twombly Landing Site II. *New York State Archaeological Association Bulletin*, No. 49. Rochester.
  - 1974 The Lower Hudson: A Decade of Shell Middens. *Archaeology of Eastern North America*, Vol. 2, No. 1. Attleboro.
- Broyles, Bettye
- 1971 *Second Preliminary Report: The St. Albans Site, Kanawha County, West Virginia*. West Virginia Geological and Economic Survey. Morgantown. Kinsey, W. Fred, III et al
  - 1972 *Archeology in the Upper Delaware Valley*. Pennsylvania Historical and Museum Commission Anthropological Series, No. 3. Harrisburg.
- Kraft, Herbert C.
- 1975 *The Archaeology of the Tocks Island Area*. Seton Hall University Museum. South Orange, New Jersey.

Ritchie, W. A.

- 1971 *A Typology and Nomenclature for New York Projectile Points*. Revised. New York State Museum and Science Service, Bulletin No. 384. Albany. Stephenson, R. L.
- 1963 *The Accocek Site*. A Middle Atlantic Seaboard Culture Sequence. Anthropological Papers No. 20, Museum of Anthropology, University of Michigan. Ann Arbor.

#### PAINTED PREHISTORIC IROQUOIS POTTERY FOUND IN THE BRISTOL HILLS OF NEW YORK

Mary-Louis Gerek

Lewis H. Morgan Chapter

Up to the present time it has been assumed, on the basis of negative evidence, that the prehistoric Iroquois of New York had no painted pottery. The only decorations noted on the ceramics were those made by altering or manipulating the clay itself. Evidence is now available to show that its existence, although rare at a particular site, is fairly widespread.

The Footer Site (Can 29-3) in the Bristol Hills area of western New York State, first tested in 1961, had never been disturbed prior to excavation. Since the initial testing, the Rochester Museum and Science Center has conducted several seasons of excavations on the site which have yielded a great deal of artifactual material.

It is located on a partially wooded hilltop, and is a palisaded village which probably was inhabited for an extended period of time. The site is believed to date between A. D. 1300-A. D. 1400 (RMSC, ND). These dates correspond to the Middle Ontario Iroquois Stage in southern Ontario Province (Wright 1966).

During the analysis of the materials recovered from Footer, some pot sherds were discovered which appeared to be painted. The paint is black applied to the brown surface of the clay (Plate I:d). On some pieces, the black is used in combination with red pigment rubbed into the surface of the clay (Plate I:b, c). The designs consist of vertical straight lines, ranging from 5 mm. to 15 mm. in width. These lines run parallel, when more than a single line is present, with no more than 5 mm. between lines. The sherds are mostly small neck sherds, so only small portions of the patterns are actually evident. At this time, only 5 sherds from Footer are positively considered painted. Several other sherds may possibly bear paint, but at this time it is impossible to make any positive identification.

A search of the literature pertaining to Iroquois ceramics revealed the existence of painted prehistoric pottery in Ontario Province. The first was reported by James V. Wright in 1966. Two painted sherds were recovered from the Stafford Site, St. Meyer site in southern Ontario, and from the nearby Downpour Site, a late Pickering Branch site. Wright also referred to a personal communication from Walter Kenyon stating that a single specimen was recovered from the Miller Site located north of Lake Ontario, dated at A. D. 800. This date is revised from a later date published for the site by Kenyon in 1968 (Wright, personal communication).

Since 1966 four more painted sherds have been found in Ontario. Two neck sherds with single vertical bands measuring 3 mm. and 16 mm. were found on the late Pickering Bennett site dated at A. D. 1260 (Wright and Anderson 1969: 45). A body sherd with an irregular black painted band was also found. The Nodwell Site, a Middleport site dated at A. D.  $1340 \pm 75$  on Lake Huron, yielded one neck sherd with a painted vertical band 15 mm. wide and a neck sherd with red ochre rubbed into the surface of the clay (Wright 1974: 161).

An examination of the ceramics collections at the Rochester Museum and Science Center revealed more examples of painted Iroquois pottery. Three sherds reconstructed from the Fletcher Site (Can 28-3) are the only examples so far which actually demonstrate the relation ship of the painted band with the rim and its decoration (Plate I: a). The band lies perpendicular to the Ontario Horizontal design of the rim (MacNeish 1952). It extends downward over all three reconstructed sherds and ranges in width from 11 to 15 mm. widening as it goes down.

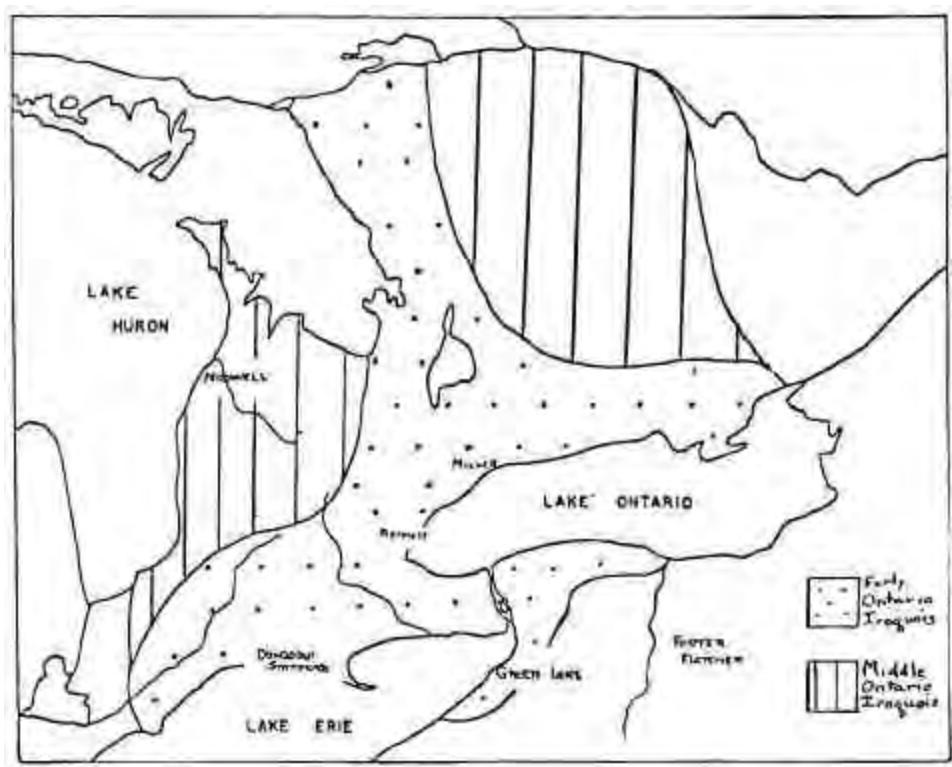


Figure 1. Areas of Influence of the Early and Middle Ontario Iroquois Stages (after Wright 1966).

Fletcher is a small site also located in the Bristol Hills. The refuse is thinly distributed over a cultivated field. The ceramics show a great similarity to the Footer ceramics and should be fairly close in time (Hayes 1963).

A pipe with paint on the bowl (Plate I: e) was found in the Rochester Museum's collection from the Green Lake Site (Buf 1-4) in Erie County, New York. Some European trade goods were found also, indicating a later date than the other sites so far considered. White (1961) places the site between A. D. 1575 and 1625. The paint on the pipe is black on the buff colored clay. A 7 mm. line is placed horizontally around the base of the bowl and is crossed by wavy vertical lines measuring 5 and 6 mm. These are executed over an incised design on the bowl of the pipe.

Outside of the New York - Ontario area, Gartly, Carskadden and Morton (1976) reported the occurrence of painted pottery on the Philo II Site. This is a Fort Ancient site located in Ohio with C-14 dates ranging from A. D. 1074 to A. D. 1260. The sherds include 4 negative painted sherds (a technique which has not been noted in Iroquois ceramics as yet) and one painted sherd similar to those found at Footer. Approximately 12 other sherds may be painted. All samples were found in different features. The designs consist of small parallel bands. No rims were found in association with the painted sherds so other possible accompanying designs are unknown. The authors state that painted ceramics are also known on two other Fort Ancient sites of the Madisonville Phase in Ohio and at one site of the same time period in Kentucky.

To determine the composition of the paint, a chemical analysis was requested from the analytical laboratories at Eastman Kodak Company. Several specimens of the painted sherds from Footer and the large rim sherd from Fletcher are being tested. Two tests so far have not been conclusive as to the composition of the pigments used on the sherds. They were designed to record only inorganic elements. Only those elements characteristic of the clays in the area were found. More analysis will have to be performed to determine the composition of the pigments.

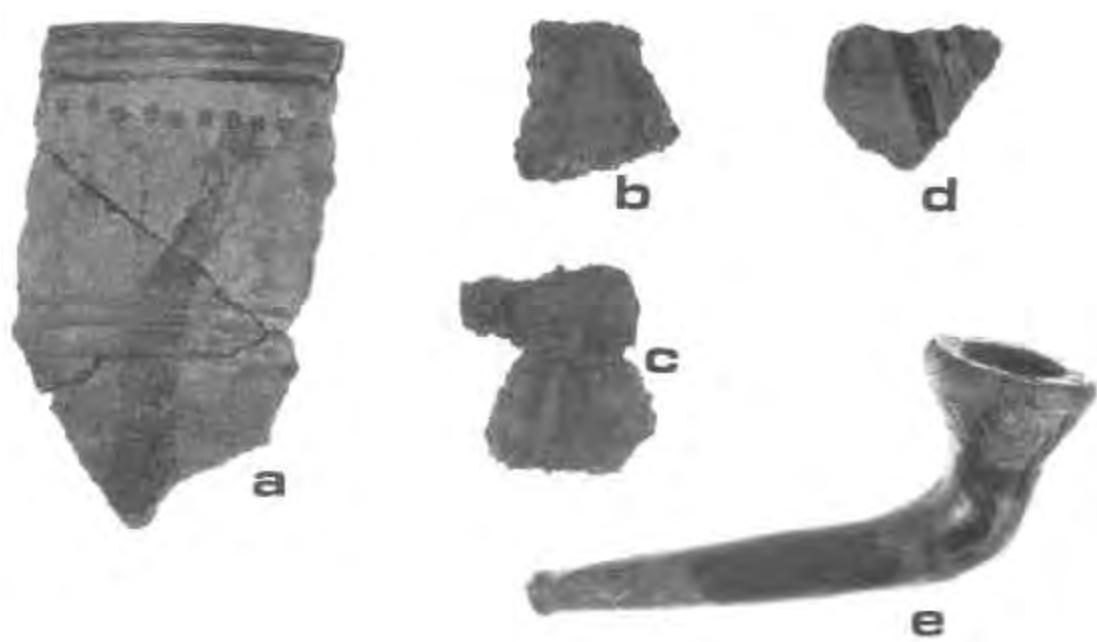


PLATE I. Painted Iroquois Pottery from New York State a-black painted reconstructed sherds from Fletcher Site (Can 28-3); b, e-black and red painted sherds from Footer Site (Can 29-3); d-black painted sherd from Footer Site (Can 29-3); e-pipe from Green Lake Site (Buf 1-4).

Some sherds have black stains on them that closely resemble the painted sherds. These may or may not be intentional. The type of markings on these sherds three. First are the linear designs similar to those of the painted sherds, but not as distinct. Sherds with what appears to be a droplet spatter constitute the second type. The third type of questionably painted sherds bear black stains on portions of the sherds in no apparent patterns. Samples of these sherds are also being analyzed by Eastman Kodak Company to provide comparison for the classification of the questionable sherds. As a result of these tests, more sherds may be classified as painted, and designs other than parallel lines may be found.

The development of the Iroquois within New York and Ontario has been a question widely researched since MacNeish (1952) stated his *in situ* theory. The major premise of his theory is that in the Middle Woodland Period there was a single, homogeneous culture in northern New York State and southern Ontario known to archeologists as the Point Peninsula Culture. The Owasco cultural complex developed out of the Point Peninsula in eastern New York leading into the classical Five Nations Iroquois (MacNeish 1952). In southern Ontario a similar cultural base developed, but with two branches, the Glen Meyer and the Pickering (Wright 1966). The area of overlap between the Ontario and Eastern New York areas seems to be between the Genesee River Valley and the Finger Lakes (Lenig 1965).

The two branches of the early Ontario Iroquois developed between A. D. 1000 and A. D. 1300. The Glen Meyer Branch was located in a restricted area of southwestern Ontario. A more widely distributed complex called the Pickering Branch developed in southeastern Ontario. Wright (1966) hypothesizes that the Glen Meyer Branch was conquered and absorbed by the

Pickering and that the latter then served as the base for the Middle Ontario Iroquois Stage dating from approximately A.D. 1300 to A.D. 1400. Two substages appeared during this time, the Uren being the earlier and the Middleport the later.

This simplistic summary leaves out several details and questions which are not pertinent at this time. The sketch is, however, adequate to provide a framework within which the occurrences of the painted pottery can be more readily understood.

The earliest date at which painted pottery is present is at the Miller Site at A. D. 800. The next sites to show it are the Glen Meyer site at Stafford and the Pickering sites of Downpour and Bennett. All of these sites range in time from A. D. 1000 and A. D. 1300. After this, the painted pottery moves both east and west, reaching Nodwell, Footer and Fletcher at approximately the same time, A. D. 1350. The painted pottery of the prehistoric Iroquois reflects influence from Ontario on the ceramics of western New York State. The region between the Genesee River and the Finger Lakes is one where the blending of influences from southern Ontario and eastern New York can be seen (White 1961; Lenig 1965).

Wright concludes that painted pottery is a rare trait of the Early Ontario Iroquois that survived into the Middle Ontario Iroquois Stage (personal communication). The occurrences are rare when looked at as the percentage of sherds found within one site, but the wide distribution of the trait is becoming increasingly evident.

Gartly, et al. (1976) hypothesized that painted pots may be more common than indicated by the actual numbers recorded. The weathering on the sherds is great. Because of ground water action and chemical action in the earth, it would be rare for the paint to survive. Only optimal conditions of a dry refuse pit or something protecting the surface of the paint could insure the preservation of the design. Gartly, et al. promise a separate analysis of the painted materials to be available in the future.

At this time, there are no answers to the questions raised about the actual distribution of the painted pottery among the Iroquois or the degree to which the paint has been destroyed by weathering. The excavation record of the sherds known are not detailed on these questions because the existence of the sherds was not previously recognized. These questions can be answered only by those in the field who are aware of the painted pottery and who can record the details of its preservation.

The purpose of this report is to bring an awareness of the present inconclusive facts pertaining to Iroquoian painted pottery. Painted pottery did exist among the prehistoric Iroquois. To find the scope of its popularity and use, we must examine existing collections of materials and newly recovered materials to increase our sample. More tests must be run to analyze the makeup of the pigment. The tests from Eastman Kodak Company will help add to this information when more results are available. All of the information pertaining to Iroquois ceramics will have to be examined in the light of the information given about the Ohio ceramics to see a clear picture of the significance of the painted pottery and what it means to the overall ceramic development in northeastern prehistory.

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#### References

- Gartly, Richard, Jeff Carskadden and James Morton  
1976 "Ceramics from the Philo II Site" *Pennsylvania Archeologist*, Vol. 42, No. 1-2, pp. 55-75.

- Hayes, Charles F. , III  
1963 "Prehistoric Iroquois Studies in the Bristol Hills, New York: A Summary." *Pennsylvania Archeologist*, Vol. 23, No. 1-2, pp. 29-34.
- Kenyon, Walter A.  
1968 *The Miller Site*. Royal Ontario Museum. Toronto.
- Lenig, Donald  
1965 *The Oak Hill Horizon and its Relation to the Development of Five Nations Iroquois Culture*. Researches and Transactions of NYSAA. Buffalo.
- MacNeish, Richard A.  
1950 *Iroquois Pottery Types*. Canada. National Museum. Bulletin 124.
- Ritchie, William A.  
1961 "Iroquois Archeology and Settlement Patterns. " In *Symposium on Cherokee and Iroquois Culture*. U. S. Bureau of American Ethnology Bulletin 180, pp. 25-38. Rochester Museum and Science Center  
ND Field Notes and Manuscript Reports on Footer Site Excavations. 1959-1976.
- White, Marion E.  
1961 *Iroquois Culture History in the Niagara Frontier Area of New York State*. Museum of Anthropology, University of Michigan, Anthropological Papers, No. 16. Ann Arbor.
- Wright, James V.  
1966 *The Ontario Iroquois Tradition*. Canada. National Museum, Bulletin 210.  
1973 *The Nodwell Site*. Canada. National Museum Mercury Series. Paper 22.  
1976 Personal Communication.
- Wright, James V. and J. E. Anderson  
1969 *The Bennett Site* . Canada. National Museum. Bulletin 229.