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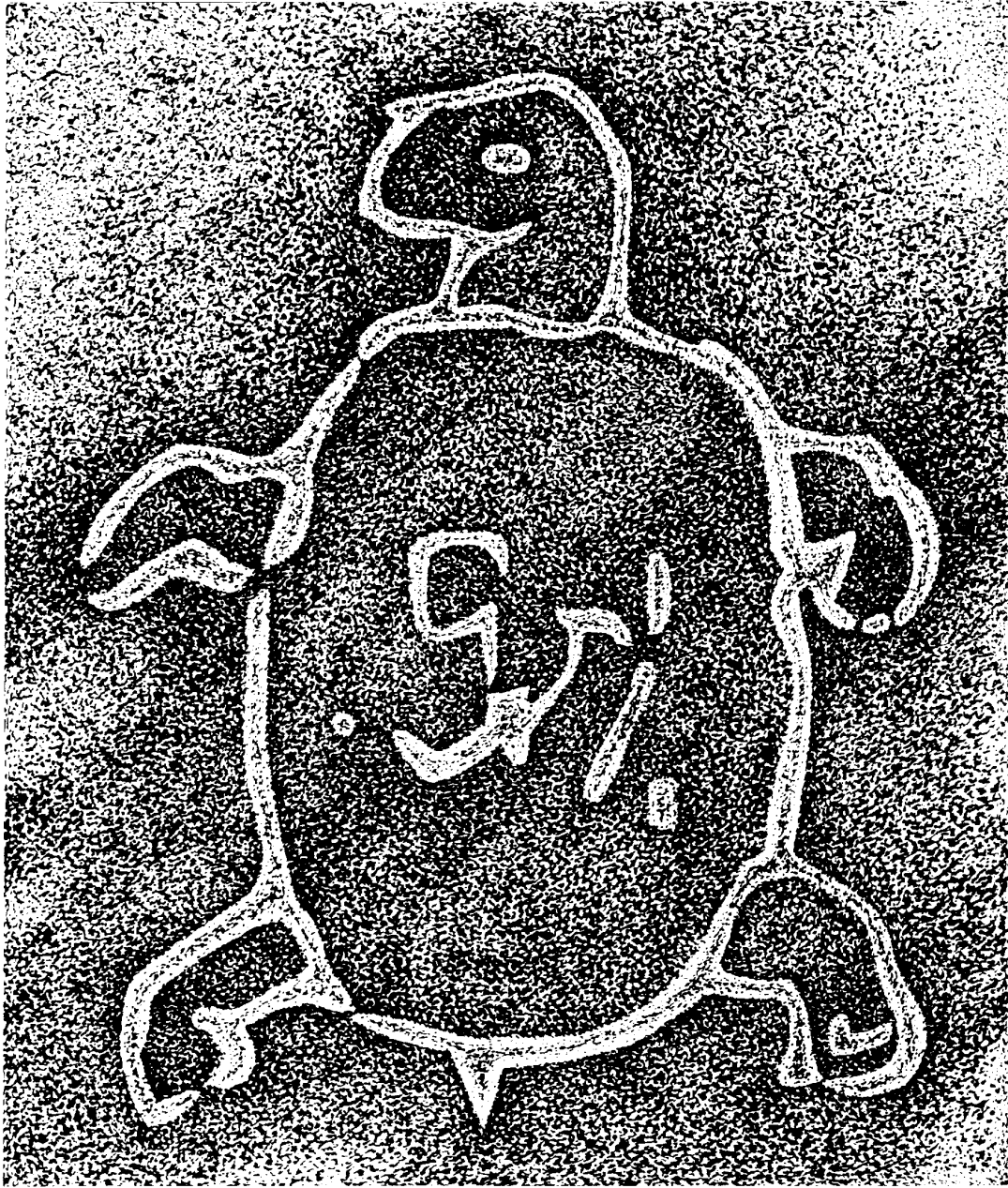
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# The Bulletin

Journal of the New York State Archaeological Association

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Turtle Petroglyph on the Bronx River

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# **“Parts is Parts:” An In Situ Hypothesis for Late Archaic to Middle Woodland Development in the Lower Great Lakes**

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*The culmination of several studies of lithic artifact production, patterning and exchange during the period from 3000 to 300 B.C., combined with considerations of certain settlement pattern continuities, has pointed the way toward a simplified and testable cultural development model in the Lower Great Lakes. Using ceramic variations as his criteria of distinctions in relationships, MacNeish proposed in 1952 an “in situ hypothesis” for Iroquois cultural development. This paper borrows the concept from that early attempt but utilizes functional and stylistic variation in lithic products to demonstrate that continuity of cultural development is more often observed in stable, conservation traditions which are at times lost from view under fluctuating patinas of exotic imported items and ideas. These cultural patinas, usually of limited duration and spatial extent, have deposited partial occupation patterns which are neither systemic nor complete. Almost fifty years of investigations of variable intensity have gone by since some of these expressions were first defined. It is time to retire these older interpretive expressions in favor of clearer more simplified regional and areal traditions examined within the analytical frame of a homogeneous hypothesis of in situ growth.*

## **Section 1.01 Introduction**

One winter afternoon in the dim upper floor corridors of the Rochester Museum, a conversation between two snowbound archaeologists was overheard. The reconstructed repartee went something like this:

Archaeologist A (naively): "Say Charlie, about those Middlesex sites .....

Archaeologist B (puzzled): "Huh? Don't know much about 'em -just the mortuary parts."

Archaeologist A (determined): "Yeah, but what about the living sites?) What's the settlement system made up of?" Archaeologist B (sadly but wisely): "Gee! I don't know. Other parts I guess."

Archaeologist A (naively again): "Parts"? What parts?"

Archaeologist B (as the advertisement says): "Parts is Parts"

While the recording of this byplay is illustrative only, the question raised is not. The issue is symbolized by the mythical "chicken parts" and composition of the archaeological – chicken -understanding Late Archaic to Middle Woodland cultural development here in New York State.

The intent of this inquiry is to examine an explicitly in situ cultural development model which is derived historically if not theoretically from MacNeish's hypothesis concerning Iroquois development (MacNeish 1952). Essentially, his model suggested a departure from earlier studies in that he hypothesized and tentatively demonstrated connections with cultural entities both earlier and later than those which produced his sample. He also sought and clarified the relationships between spatially discrete sociocultural expressions which appeared to be doing the same things culturally, at the same time but in slightly differing ways. We may, derive several propositions from the results of that study based nearly in toto upon stylistic analysis of ceramics (MacNeish 1952:81-85).

1. "Of great importance ... is the amount of areal differentiation and areal development."

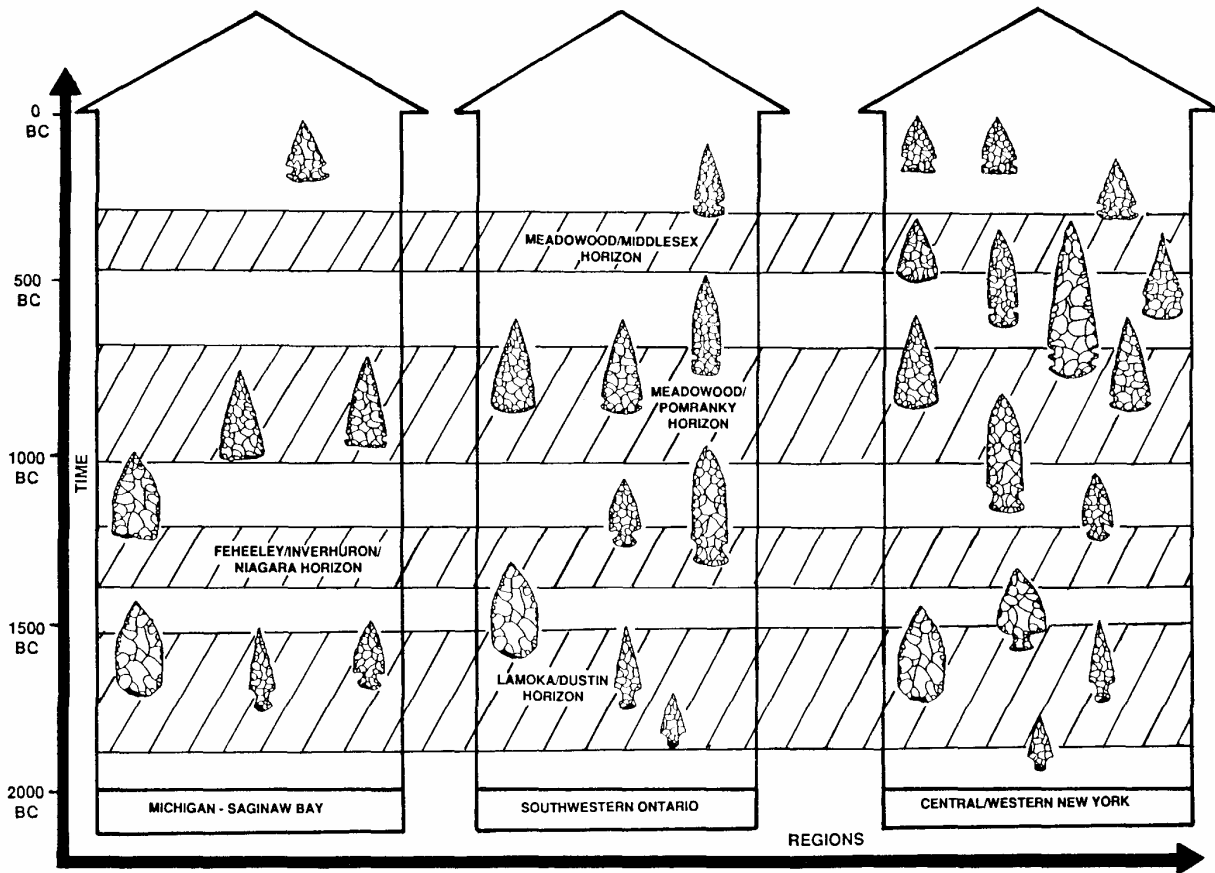
2. "Differentiation took place from a more or less homogeneous (base)."

3. "Besides trends, traits, and overlapping types there are transitional elements which link (sites or complexes)."

4. "(The) general picture of ... development shows a tendency to more and more heterogeneity (stylistically)" (parentheses mine).

The application of the above is not, admittedly, wholly appropriate in that there is not necessarily suggestion of linguistic unity, and there are few absolutes such as the historic period parameters from which MacNeish could extend his model through to the past by the direct historical approach. It may be seen, however, that there are ways of developing unifying relationships outside language and ceramics. Conversely, there are means for testing whether relationships necessitated by an overly rigid taxonomic structure approximate reality. The means that were chosen to use are lithic studies, control of resources, trajectories of artifact production, and distribution of information and products by exchange.

This paper examines logical cultural consequences from the development of tool function versus the historical/descriptive concept of stylistic change for all classes of stone (lithic) implements that were produced from a particular lithic raw material, Onondaga Chert, from the Late and Terminal Archaic to Middle Woodland Period in Central and Western New York State. The study considered here continues and expands some preliminary avenues discovered in the course of sabbati-



**Figure 1.** Lower Great Lakes projectile point traditions.

cal research on a related but separate topic funded by a research fellowship from Rochester Museum and Science Center in 1984.

If one assumes that a single lithic tool manufacture process characterizes the 2700-year expanse of time from the Late/ Terminal Archaic through the Early Woodland/Middle Wood land transition (c. 3000 B.C. to 500 B.C.), then there should be clear correspondences in assemblages from contemporary sites to that reduction sequence. Early results from preliminary study tend to confirm that proposition and suggest the general hypothesis that the historical/descriptive types or styles of tools defining cultural phases are more appropriately utilized as accurate reflectors of selection for functional efficiency. The morphology of these reflectors is transformed culturally in response to ecological changes but always as constrained by the process of reducing raw material to the point where a number of equally or nearly equally efficient variants are produced to accomplish the task. Variant selection based upon efficiency rather than aesthetic choice appears to condition the frequency of particular tool "styles" over time in this area rather than

any historical development or any particular group aesthetic. Figure 1 illustrates variants of projectile points clustered in an earlier study (Granger 1988) and suggests temporal transformations by solid and broken lines from Lamoka through Meadowood.

This approach offers some clarification of the Late Archaic - Terminal Archaic - Transitional - Early Woodland - Middle Woodland trait-bound taxonomic muddle which has been created by utilizing projectile points as stylistic or "classic" horizon markers in the same way that MacNeish used ceramic styles. Starna (1979:13) suggested a few years ago that for purposes of cross-typing, the present Late Archaic classification of projectile points does not stand up well due to "unstated internal variation." Retention of numerous taxonomic units whether projectile point types, phases, or cultures obscures stable development out of in situ traditions or those traditions that are derived from long term contact and exchange of information. Few would contest the idea that there have been penetrations of the Great Lakes Area by "new" cultures which then settle in and commence local development in the

form of a local or regional territorially rooted tradition. In Northeast interpretive studies, however, that phenomenon operates in competition with defined cultural patinas derived from fragments of cultures observed out of their systemic context in functioning subsistence-settlement systems (Dragoo 1976b; Fitting and Brose 1970; Ritchie 1969; Ritchie and Dragoo 1960; Ritchie and Funk 1973). While many archaeologists have attempted to clarify the situation (Fitzhugh 1972; Ford 1974; Funk 1983; Funk and Rippeteau 1977; Grayson 1970; Mason 1981; Snow 1980; Tuck 1977, 1978; and numerous others), much of the result has been the definition of cultural segments (parts) as wholes and the addition of these to the record pending "further work." In some cases, fifty years of "further work" has produced no enlightenment, resolution, or simplification of this problem (Rippeteau 1975; Ritchie 1985).

### Understanding the Systemic Whole

Before developing the propositions that are the core of this In Situ Hypothesis, there is a small amount of processual information that is critical to the discussion. Essentially, this consists of attempting to understand that cultures are operating systems with each "part" or subsystem functionally integrated as a necessary element of the whole (Gibbon 1984). The whole, or in the terms used above, all of the "parts," is greater than the sum of its component parts because the system is composed not only of the parts but also includes the systemic relationships between them. This is what allows a systemic whole to operate or function (Gibbon 1984:19-25). In a paper some years ago, an attempt to put "Old Toys in New Boxes" (Granger 19780 by assigning new typological definitions to taxonomic units of settlement or "boxes" in a systemic sense and then order these sociocultural segments in order to organize a whole subsistence-settlement system was less than successful. Still, as others have pointed out or have illustrated in their syntheses, this form of inquiry is essential to a clear interpretation of prehistoric developments (Braun 1980; Ford 1974; Funk 1983; Handsman 1982; Mason 1981; Parry 1980; Snow 1980; Stothers and Graves 1980). The system, as defined at that time, quite simply did not appear to be either complete or wholly logical using the information available. Yet, given the internal consistency within the Early Woodland phase under observation, there had to be an underlying set of relationships that caused the model proposed to hang together as a viable entity. Functional relationships were sought by examining externals such as the role of exchange in territorialism, ceremonialism, and information flow, but the infrastructure for understanding them was not there (Brose 1979; Cook 1976; Granger 1978b, 1978c, 1980, 1981; Jochim 1976; Loring 1985; Simms 1979; Spence 1982). While reasonably satisfactory in the ceremonial sense (Loring 1985), the core problem of continuity between whole cultural systems in space and time was not adequately treated.

A reexamination of the defined Meadowood subsistence settlement system from a cultural evolutionary and materialist standpoint is needed to clarify the problem. If one allots to technology the basic role in a culture's adaptation to its environmental milieu, then somewhere in that cultural subsystem might be found the unifying relationships that would consider functional interactions, patterned behavior and evolutionary development over time (Handsman 1982:89-92; Spence 1982). Cleland (1976:58-68) in his discussion of the "focal diffuse model" in an evolutionary context, focuses on this very need for functional definition of adaptation to varying resources (e.g., focal on a very limited range and diffuse on a very broad range of subsistence resources by a regional "subsistence group"). Basically, what the Meadowood subsistence settlement system model demonstrated was a well-defined temporal and regional complex with most systemic segments in place within a sedentary logistically mobile lifestyle (Granger 1978a; Kuzner 1986). Thus the "subsistence group" was delineated with its complete seasonal round, yet isolated from other similar sociocultural expressions both in time and in space (Cleland 1976:59-60). Cleland's continuum offers a trajectory for further temporal or geographic connections without walling off functional variants as historical/descriptive taxons by trait listing within a fairly rigid stylistic interpretation of "types" (Bettinger 1980:205-19; Starna 1977:81).

Variation both in function and styles has perplexed Northeastern archaeologists for many years (Dragoo 1976a; Funk 1983, 1985; Griffin 1967; Mason 1981; Ritchie 1969; Snow 1980). Written culture histories (Funk 1983) have very often been loath to confront the question. The difficulty begins with the plethora of almost freely varying cultural adaptations to the highly stable and productive environment available in the Lower Great Lakes Area during the period from 3000 through 300 B.C. (Handsman 1982:91). Chief among the reactions to this abundance of "types" has been the definition of still more new taxa (Ritchie 1969, 1971a; Ritchie and Funk 1973; Funk and Rippeteau 1977 contra Brown 1982; Cowgill 1982). To assist in resolving the confusion, Starna suggested use of the concept "lifeway variant." He continued that:

.when assemblages on a number of sites reflect in g the same lifeway and time period differ from region to region ... This would indicate that although it is recognized that each of the groups situated in adjacent regions at about the same time period are practicing the lifeway, they are all going about it in a slightly different manner [1977:79].

It is critical to understand that function of an artifact, a site, an assemblage, a pattern, or anything else cultural is neither historic nor is it necessarily ethnic. Something either works or it does not, and it is either efficient, or it is not (Brown 1982:181-183; Meltzer 1981). Any variant that performs adequately where a particular response/function or adaptation

is called for may be selected if a sufficient pool of equally effective allomorphs is available (Brown 1982; Sackett 1982). Now, suppose we are talking about "cultures" (e.g., Lamoka and Meadowood), what conveys historicity or ethnicity? Certainly not the utilitarian aspect of lifeway, as technological products usually reflect a functional need-response. Rather, it is the material expression on the ground, the "slightly different manner" of a group's selection of a form of equally workable tool, that creates the "style" peculiar to either a diachronic or synchronic variant. Assuming for the moment that we wish to refer to either the historic or ethnic taxon as a culture, it is also necessary that either meets Cleland's (1976:59) criteria for a "subsistence group" in that it represents a *complete* transhumant entity. This is the crux of this paper. Are the various observed Late Archaic, Transitional, and Early Woodland lifeway variants described by tool forms or other archaeological evidence in context functional systemic wholes, or are they fragments? And, if fragments, where does the investigator observe their contiguous relationships in space or time? Put another way, are parts identified as parts, or are they portrayed by trait listing and rigid historical/descriptive taxonomic units to look like wholes?

Studies that resulted in this paper began by considering lithic variation in order to portray regionalism within the Early Woodland Meadowood Phase (Granger 1977). This led to the definition of a production (reduction) sequence for Onondaga chert tools, an intensely unified process (Bradley 1975, Granger 1977, 1978a, 1978b, 1981, and n.d.). Varieties of lithic tools are functional, that is, they are most often designed for utilization (Brown 1982:181-183). Where style is evidenced in lithic tool morphological types, it is rarely due to aesthetics (Sackett 1982). Yet, we treat lithic types as we do ceramic types - as major spatial and temporal marker fossils - rather than as the *functional variants* produced from a lithic reduction sequence, which they actually are (Granger 1986). The *process of production* is a *shared systemic relationship* (Granger 1988; Brown 1982) and one that can be observed in the data (Aldenderfer and Blashfield 1984; Collins 1975; Cowgill 1982; Thomas 1986). Further, those regional groups that are related by this process can be traced in both time and place (Clay 1976). Thus, varying cultural groups may be related to the extent that they share the same technology and apply it similarly in like ecological situations, aside from all the other sociological and ideological concepts that characterize a tradition, and that we have rarely been able to observe through excavation (Loring 1985:106). To some extent, this centralizing concept substitutes for the lack of linguistic or ceramic uniformity observed and used by MacNeish (1952) in his study.

Recently, a number of researchers have dealt processually with the sharing of concepts and resources through the medium of exchange (Brose 1979; Granger 1978b; Loring 1985; Simms 1979). A recent example of this activity is reflected by Lavin's work in Connecticut. She states of Granger's 1981 and 1986 studies that:

... Meadowood materials found on Connecticut sites did *not* constitute the

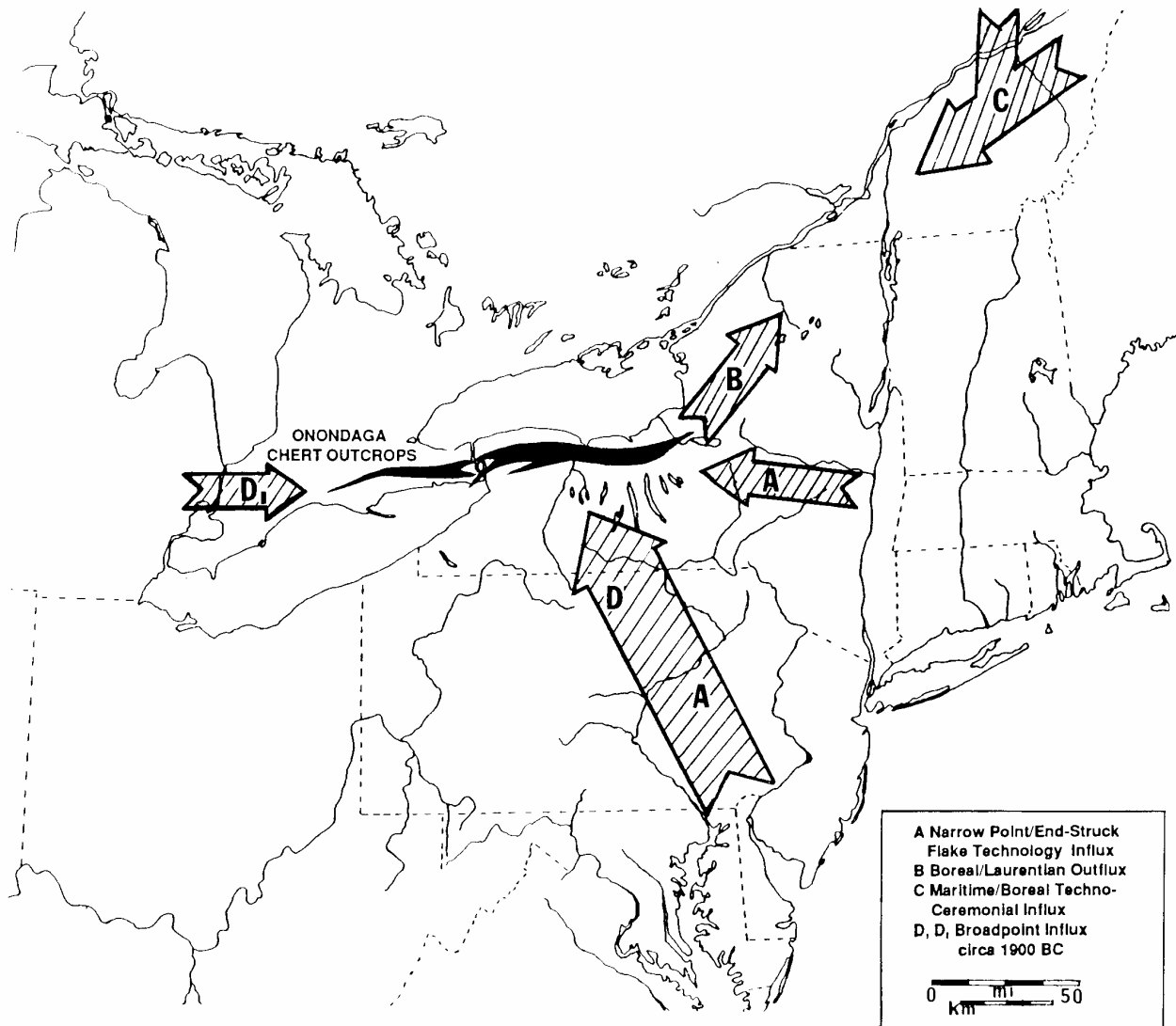
remains of indigenous Meadowood components, but were a result of exchange and procurement, especially since recent evidence firmly places the Narrow Point tradition as the indigenous point tradition from Late Archaic through Contact time, in Connecticut. Your [Granger's] studies strongly support this supposition [L. Lavin, Peabody Museum, personal communication, 3/2/86].

Without recounting the hypotheses, corollaries, and axioms developed in the above papers, it can be suggested that from the Late Archaic to the Early/Middle Woodland horticultural/agricultural transition, resource control was of critical importance. So was efficient management and distribution of resources in a network of inter-regional reciprocity (Brose 1979:6-8; Kuzner 1986; Loring 1985:103-106). Given these conditions, it is expectable that those whose territory included critical resources, all other resources being at least equal, must either have used them or lost them. This is where the importance of the shared production process becomes vital and allows territorial maintenance by redistribution of resources through sociopolitical mechanisms (Kuzner 1986; Loring 1985:104). This is also why it is important to isolate the stable (read: efficient), conservative (read: maintenance), systemic (read: whole) traditions (read: in situ cultures) from those which were peripheral and/or non-systemically defined by evidence on or from the ground. Otherwise investigators will continue to have great difficulty separating cultural realities from intrusive illusions in the prehistory of the Northeast.

### In Situ Cultural Development in the Erie-Ontario Region of Central and Western New York

The presentation of this hypothetical in situ model for cultural development begins in the period of time when climatic conditions had just about reached their present state or about 3000 B.C. In the Erie-Ontario segment of the Lake Forest the more southerly oak-hickory mesophytic succession was establishing itself at the expense of the maple-beech-hemlock association (Carbone 1982). Culturally, groups producing a form of narrow-stemmed point were beginning to penetrate the area south of the two lower Great Lakes along the major river valleys from the Atlantic coast (Dincauze 1975; Fitzhugh 1972; Funk and RippetEAU 1977; Griffin 1967; Ritchie 1971b; Ritchie and Funk 1973; Tuck 1977, 1978) (Figure 2). The resident cultural expressions in the area were several variations of Laurentian Archaic groups with a subsistence-settlement system approximating that of the more northerly sub-boreal forest adaptation. Some evidence suggests that these groups were adapting to the changing ecological conditions of high mast-producing forests (Carbone 1982:45-47; Tuck 1978).

The Laurentian technology produced lithic tools using the bipolar/side-struck flake reduction process of the north (Bin-



**Figure 2.** Lower Great Lakes c. 2000 B.C. cultural transitions.

ford and Quimby 1963; Bradley 1975; Tuck 1978). On the coast in some quartz industries, one of several reduction processes produced flake blanks, which were modified by bifacial flaking, with the base of the stem formed by cortex or the striking platform of the original flake (D. Ritchie 1981). This production process was firmly in place by 2500 B.C. in the Middle Atlantic region. To the north the "Maritime" variant of the northern pattern was producing chipped forms together with utilizing a peck/polish process for working slate (Tuck 1978: 32-34). Bone industries of this northern adaptation were heavily oriented toward leisters and harpoons (Tuck 1978:30-32).

At this early level (3000-2500 B.C.) we can suggest the proposition that:

1. Cultural groups with an efficient adaptation to high mast-producing environments and bearing a technological process for producing lithic tools on end-struck flakes were moving into the major river valleys leading inland from the Middle Atlantic portion of the Atlantic coast. They soon came into contact with resident groups bearing a more northerly adaptation.

Evidence for this contact is seen in the Hudson Valley (Funk 1976; Ritchie and Funk 1973), Susquehanna Valley (Funk 1985; Funk and Rippeteau 1977), Delaware Valley and elsewhere. Arguments have been advanced that processes utilizing two dissimilar resources (e.g., quartz and chert) are incompatible and therefore must represent wholly different



groups (Funk 1976). However, as the contact in the riverine corridors continued, the technological processes from the coast adapted to the use of a new material - Onondaga chert. The southern penetrant technology moved up to the Onondaga Escarpment (Hammer 1976; Roberts 1980) (Figure 2) and was firmly in place adjacent to the lakes and chert resources on the Erie-Ontario Plain by about 2500 B.C. (Funk 1983, 1985; Granger 1977, 1988; Ritchie 1969, 1985; Snow 1980).

These coastal-derived groups (or concepts) became well established at sites like Lamoka Lake, Geneva, Cole Gravel Pit, and the numerous other, smaller settlement types which formed their transhumant cycle (Ritchie 1969; Ritchie and Funk 1973; Trubowitz 1977a). It is possible that they brought differing methods of fishing consisting of hook and line as well as coastal forms of weir and net-taking (Tuck 1978:30). There is clear evidence for their emphasis on mast (acorns) and the white-tailed deer a major dominant permeant of the mast forests. Another most interesting connection to their coastal origins is Gramly's demonstration that the base settlement assemblages of Lamoka Lake and Mt. Sinai Harbor (Long Island) are homologous. There is little evidence for the kind of sharp ecological demarcation that might account for the Lamoka groups' replacing the earlier resident groups (Fitzhugh 1972:14). The gradual transition is only seen in modifications of frequency of such items as harpoons in the still extensive bone industry. More than likely there was significant overlap in catchment areas for each set of distinctions between these peoples (Pfeiffer 1977) and judging from at least one analysis, very little social distinction as well (Trubowitz 1977b). Trubowitz's (1977b) analysis of the Frontenac Island Site effectively removes this "Phase" as anything other than a physical representation of territorial overlap in a badly admixed multi-component site on a small island in Cayuga Lake (Ritchie 1969:105-106).

It becomes very clear in looking at general area surveys (Mason 1981), sites and assemblages that there was a great shift in lithic resource control and in experimentation in form (McManamon 1976; Wray 1948) with a resultant increase in functional efficiency. Close examination of Lamoka lithic inventories convincingly demonstrates that a large number of functional variants were being produced from a very efficient lithic reduction sequence. The indigenous north-adapted groups apparently had, by 2000 B.C., coalesced north of the Mohawk River Valley into the Champlain Valley (Haviland and Powers 1981) and northward to the St. Lawrence River (Clermont 1974; Clermont and Chapdelaine 1980), becoming truly Laurentian (Tuck 1977:33-35; Wright 1979). Parenthetically, it must be noted that the "Ohio Valley Laurentian," a very weak transposition of loose typological similarities onto a strong resident Ohio River Valley cultural tradition, is only now being defined in the region. Once situated on the St. Lawrence River Valley corridor, Laurentian groups continued to partake but even more fully of Maritime Archaic elements passed inland by exchange and of native copper acquired from the northwestern Great Lakes by the same processes. Information flow into both Laurentian

(Brewerton) and Lamoka appears to continue to reinforce continuities to the northeast for the former and to the south for the latter, however.

Four additional propositions may be stated as follows:

2. Lamoka cultural systems were establishing efficient ecological and resource control centered in the area and caused a retreat of indigenous Laurentian groups to the northeast where a reinforced exchange network introduced Maritime Archaic mortuary elements which gave rise to the "cult of the dead" concept in the St. Lawrence and Champlain Valleys initially.

3. Lamokoid subsistence-settlement systems became more sedentary and increases in population forced overlapping Laurentian outliers to give way often with conflict (e.g., certain Frontenac Island burials showing violent death). These outliers did not constitute systemic wholes but rather segments of a geographically extended Laurentian lifeway variant.

4. Lamoka culture received and accepted a flow of concepts and goods from the southeast in exchange for high quality Onondaga cherts; at the same time extending and participating in long-distance trade and reciprocity networks to the west (Saginaw Bay, Michigan) and southwest (Ohio Valley).

5. Mortuary concepts and some exotic grave goods reached Lamoka groups having first been filtered through Laurentian groups. Passage of these concepts in information flow down the river corridors to the coast reinforced coastal elements transmitted from the Maritime Archaic to the Middle Atlantic region.

When one examines intensive surveys of limited space, for example the Genesee Valley, the intensity of Lamokoid occupancy and control is apparent (Trubowitz 1977a). What is not so readily observable is that the activities evidenced in the various Lamokoid components are consistent, replicated, and reasonably complementary in distribution. This is the result of a systemic interrelationship within the sociocultural expression, and it carries on in continuity through time to its in situ descendant transformation: Meadowood culture (c. 1300-500 B.C.), sharing both settlement relationships and technological processes in detail (Granger 1986). However, at about 1500 B.C., entities such as "Frost Island Phase" from the southeast (Funk 1985; Trubowitz and Sneathcamp 1975) and "Satchell Complex" from the west (Granger 1973; Kenyon 1980a, 1980c, 1980d, 1981; Lennox and Ellis 1983; Stothers 1983) are perceptible penetrants leaving the "Transitional" Broadpoints (Cook 1976; Kenyon 1980c; Tumbaugh 1975; Witthoft 1953).

Frost Island components, even at the best, are systemically ephemeral, not differing substantially from subsistence-settlement segments earlier and later in time that do have demonstrable in situ systemic continuity. Still, Funk remains convinced (1985) that Frost Island Phase is a viable cultural entity.

The work conducted by New York State Museum in the Susquehanna River drainage does tend to support this view (Funk 1985; Funk and Rippeteau 1977; Rippeteau 1975; Ritchie and Funk 1973); however, this is not inconsistent with the emphasis placed herein on the riverine corridors being a major factor in the in situ development of the Lower Great Lakes in the time period under consideration. It is when one views the Erie-Ontario Plain that the more coastally affiliated Frost Island Phase groups become thin on the ground with unsystemic component representation. The exception, of course, is the trait list of artifacts which abound in collections and assemblages in the region (Trubowitz 1977a; Trubowitz and Snethcamp 1975:22-23). Kenyon offers a newer approach to this problem by considering the contemporary more western Satchell Complex materials an industrial appendage to local cultural expressions of southwestern Ontario (Kenyon 1980c, 1981). In support of his proposition, this author's limited analysis of the Piffard Site collection with its classic *Transitional Perkiomen* Broadpoints proved to have a definite Lamoka assemblage on the surface, in the midden matrix and in grave lot context with the "Classic Perkiomen!" Further, the reduction sequence which produced all the lithic objects in that assemblage was the same as that which characterizes both Lamoka and Meadowood cultures (Granger 1988, 1978b, 1981). While it is not possible to extend similar manufacture methods to others of the Broadpoints, it is probable that they could be subsumed in the trade cluster of stone bowls - broadpoints - pottery, which passed northward along the river corridors from the coast of the Middle Atlantic region.

6. After 2500 B.C., developmental continuity in the Lake Erie-Ontario region shifts heavily to the west and more lightly to the east along the line of occurrence of the Onondaga Escarpment due primarily to boundary maintenance and chert resource control by Lamoka culture and its in situ lithic production tradition and descendant cultures.

Recently, there have been defined several components in western New York and southwestern Ontario that show developmental trends toward broader functional variants of projectile points at a time of transition between Lamoka Phase and Meadowood Phase (c. 1900-1400 B.C.) (Granger 1988; Henke 1972; Lennox and Ellis 1983; Sadow 1983; Spence and Fox 1986) (Figure 3). These settlement segments are typologically close to the Inverhuron cluster of components in southwestern Ontario, which does not seem to be at variance with the Lamoka-Meadowood continuity in subsistence-settlement system and which falls chronologically between them (Granger 1973; Spence and Fox 1986; Ramsden 1975; Wright 1972a, 1972b). The best correlations, however, can be seen with the also consistent Feeheley occupations around Saginaw Bay in Michigan (Krakker and Black 1978; Lovis 1981; Mason 1981; Peebles 1978; Taggart 1967). A similar transition is seen at the southwestern end of Lake Erie in the Western Basin tradition (Stothers 1975; Stothers and Graves 1980).

7. Continuity of cultural development argues for the following sequence of systemic whole lifeway variants in the region defined in (5) above and extended through southwestern Ontario to Michigan's Saginaw Bay and lightly northward round Lake Ontario's northern rim as well as southwestward into Lake Erie's Western Basin:

A. Lamoka (Dustin) Phase: 2700-1900 B.C.

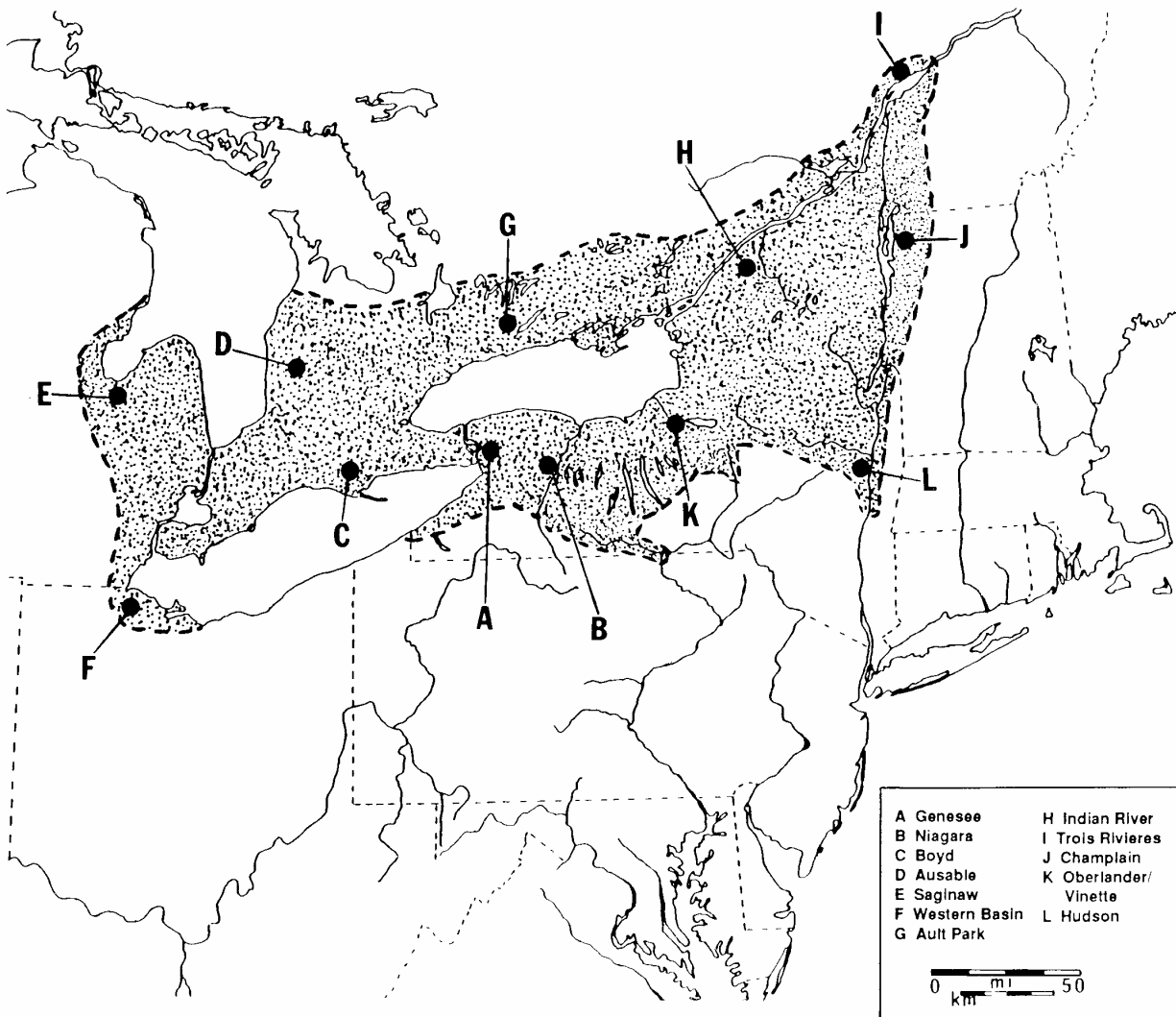
B. Feeheley/Inverhuron/Niagara Phase: 1900-1400 B.C.

C. Meadowood (Pomranky) Phase: 1400-500 B.C.

Finally, the position of the Terminal Archaic or Early Woodland "Middlesex Phase?" must be addressed. Opinion varies as to precisely what to do with a "culture" known only from mortuary contexts. Ritchie and Dragoo (1960) argued for there being an Adena diffusion/migration from the Ohio Valley. This hypothesis was satisfactorily negated by Grayson (1970) using basic statistical inference. Snow (1980:263) suggests that it is an Adena overlay on Meadowood components, a view supported by others (Fitting and Brose 1970) and by this author's recent (1988) analysis of artifacts of the Cuylerville component (Ritchie and Dragoo 1960:29-34).

Thomas (1970) has presented the most cogent of all statements, perhaps because it is the most general: Middlesex is an expression of Adena that grew out of the regional Late Archaic mortuary complexes in the Northeast. Quite possibly it is also true if one carefully analyzes the interactions of Laurentian culture and that expressed in the Maritime Late Archaic (Tuck 1978:30-34). The technology is there (peck and polish), raw material is there (slate-black and banded), morphological concepts are there (Adena point form) as is ready communication along the seacoast and up the St. Lawrence Valley (Clermont 1976, 1978a, 1978b; Clermont and Chapdelaine 1980, 1982). It is little wonder that Vermont has major burial sites yielding great frequencies of Adena items (Haviland and Powers 1981; Loring 1985). It is even less surprising to see the St. Lawrence Early Woodland sites heavily impacted by influx of "Adena" artifacts on a Meadowood base (Clermont 1976, 1978a, 1978b; Clermont and Chapdelaine 1980, 1982).

Loring (1985:95) would have Middlesex retained as a culture because there are so few studies and because there is a cohesive complex of components in Vermont. This argues a point worth consideration but for the wrong reasons. There may well be connective systemic ties with already defined culture segments now loosely presented as Middle Woodland (Spence and Pihl 1984). However, a tight mortuary complex must have emerged from a systemically tight cultural system. Directionally, there seems to be no movement by exchange to this region from the Ohio River Valley despite suggestions made by Dragoo (1976a, 1976b). Indeed, one might hold out the notion that the Ohio River Valley connection was made via the headwaters of the Potomac and Monongahela Rivers (Petersen and Hamilton 1984:430-438) and thence to the coast and the northern river corridors (e.g., Hudson River). It is very



**Figure 3.** Meadowood/Middlesex florescence population/site clusters.

intriguing to consider the distribution in New York, Vermont, Ontario, Quebec, and Delaware (Custer 1984) of "Adena without mounds."

Another important proposition is:

8. Middlesex is currently only a segment of a cultural system and as such should not be defined as a phase or a culture. It is best regarded as, rather, an additive complex in the in situ Lower Great Lakes Tradition until its systemic context is better understood. The mixed Meadowood/Middlesex temporal cluster or cultural florescence may be placed at c. 650-300 B.C.

Mortuary activities were intimately interwoven with the subsistence-settlement system of the early Woodland. Major studies of Terminal Archaic-Early Woodland systemics (Granger 1978a; Jackson 1977, 1980, 1986; Jochim 1976; Ozker 1982; Ritchie 1955; Spence and

Fox 1986) all convey this point. Certainly the Meadowood groups demonstrate the proposition of the existence of these strong functional interrelationships through utilization of feature analysis (Barnes 1977; Stewart 1977) in both burial and habitation sites in New York and southwestern Ontario (Fox 1983; Granger 1978a; Granger and White n.d.; Jackson 1986; Spence, Williamson and Dawkins 1978; Spence, Wall and King 1981; Williamson 1980). Elsewhere similar analysis and findings appear to sustain this proposition for the Saginaw Bay area on Lake Huron in Michigan (Krakker and Black 1978; Ozker 1982), the Western Basin area on Lake Erie in Ohio (Stothers 1975), and even in the middle St. Lawrence River Valley (Clermont 1978b; Clermont and Chapdelaine 1982). It is also becoming clear

that there is substantial continuity of form with succeeding Middle Woodland culture, at least, as suggested for the South Ontario portion of the study area (Findlayson 1977; Spence and Pihl 1984). Given these substantial formulations, the Middlesex culture segment is even further orphaned.

Components such as Boucher (Vermont), Long Sault Island (New York/Ontario border-St. Lawrence River), Batiscan (Quebec) and the several central New York sites (e.g., Vine Valley) must all be subjected to much closer scrutiny. If this is done, it is quite likely that results replicating those obtained in the Point-au-Buisson study by Clermont and Chapdelaine (1982) and the more cursory study done by this author on the Cuylerville in 1984 (unreported as yet) will be forthcoming. These results show that there is a stable cultural base firmly rooted in an in situ tradition of essentially sedentary groups with logistical mobility (Kuzner 1986) upon which exchanged goods are grafted in inordinate numbers in a *single systemic context* - burials. Whether this is a form of "curated" wealth (Brose 1979) or a means for reciprocal maintenance of an exchange system by retirement of surpluses or exotic goods (Granger 1978b; Loring 1985) is basically irrelevant to the simple observation that there are no other known contexts. Cultures comprised of burials neither flourish nor exist.

And a final proposition:

9. The Meadowood/Middlesex cultural florescence represents a horticulturally based population/territorial control maxima for groups sharing the in situ tradition of technology, resource control, and ecological exploitation of the high mast-producing Lake Forest in the Erie-Ontario area first developed by Lamokoid groups. With the advent of even limited agriculture, new population patterns and technologies developed.

This last proposition offers recognition of a situation that is increasingly recognized in the area under study (Braun 1980; Clermont and Chapdelaine 1982; Granger 1978a, 1981; Spence and Fox 1986; Loring 1985 among others). This situation is that there is a clear systemic cultural uniformity, discounting functional variants, in the Lower Great Lakes area by about 500 B.C. Whether this is more apparent than real there are definite shared lifeways which seem to go beyond mere information flow (Petersen and Hamilton 1984; contra Simms 1979). Loring (1985) summarizes this expression as territoriality and boundary maintenance, however much internal similarity is necessarily omitted from his paper. This similarity over a number of defined population clusters, if not *centers* in the true sense, and in a broad area (Figure 3) cannot be detailed in the space here except to suggest that it was sustained by a horticulturally based subsistence-settlement system that was sedentary to the extent that a pattern of logistical mobility (Base Settlements with Task Group fissioning had evolved from the seasonal round (Binford 1983). Preferred site locations, settlement types, house forms, storage facilities, burial features, and grave goods were all common and shared over this area. Flow of goods through

exchange was regular and completely uniform. Very close coefficients of similarity for "cache blades" amply demonstrated this phenomenon (Granger 1981). Within the Erie-Ontario area this regularity can only be explained by systemic and systematic relationships.

The In Situ Hypothesis summarized in nine propositions and three figures is quite simple. A Lamoka through Meadowood transition within a single tradition is explicitly stated here and temporally three time-successive "whole" cultures are proposed. These are in priority of nomenclature -Lamoka, Inverhuron and Meadowood. This transition is neither surprising nor unwarranted by the established facts. All cultures occupy the same space at differing times-fact! Facts that are not finally established are all the connective functional interactions vital to a clear developmental transformation one to the other. Shorn of the extra-systemic cultural "parts" that compete for attention and reduced to clusters around a centralizing set of concepts involving lithic production as a substitute for linguistic unity or that which is observed in aesthetic styles, the cultural congruity can be defined. A glance at *Aboriginal Settlement Patterns in the Northeast* (Ritchie and Funk 1973) provides instructive insight to this cultural congruity. There, formally al-ranged in parameterized taxons are the definite observations that, all things considered, some of these units (Lamoka and Meadowood) are similar in everything but defined stylistic "types." It remains to flesh out the intracultural systemics that will sustain the argument. This endeavor will proceed by increments in a Lower Great Lakes Late Archaic/ Early Woodland model where the entities being investigated are identified as either cultural "wholes" worthy of further attention or as "parts" belonging to other traditions and other investigations.

## Conclusion

This paper presents a series of propositions in support of a hypothesis of in situ development. These propositions are argued in the absence of the conclusive data that have begun to emerge from extended regional studies which cannot be presented here in their entirety. This work should be regarded as presenting a range of possibilities organized into an archaeological prologue which argues for a simplification of the investigation of cultural development in the Lower Great Lakes Region from approximately 3000-300 B.C. This call for simplification derives from rather ironic circumstances. If there were not the plethora of data in Lower Great Lakes region, it would not be possible to consider alternative interpretations of the model first proposed in its near present form by Ritchie in 1951 - it would have had to be constructed first. The regional database continues to expand and synthetic perspective papers (e.g., Custer 1984; Dincauze 1975; Dragoo 1976a; Fitzhugh 1972; Ford 1974; Funk 1983; Granger 1980; Griffin 1967; Haviland and Powers 1981; Lennox and Ellis

1983; Mason 1981; Peebles 1978; Ritchie 1969, 1971, 1985; Snow 1980; Spence and Fox 1986; Spence and Pihl 1984; Tuck 1977, 1978; Wright 1972a, 1979) have provided valuable insights into the current breadth of the art. These statements offer the setting for methodological, deductive, or inferential bursts which have often caused consternation, reflection, and reorganization (e.g., Braun 1980; Brose 1979; Cleland 1976; Fitting and Brose 1970; Funk and Rippeteau 1977; Gramly 1981; Granger 1978b; Grayson 1970; Handsman 1982; Jochim 1976; Lovis 1981; Ozker 1982; Spence 1982; Stewart 1977; Taggart 1967; Thomas 1970; Trubowitz 1977a).

With due care in current archaeological investigations and protracted unglamorous review of previously excavated assemblages, it may yet be possible to organize a more streamlined paradigm for the transformations of culture in the Lower Great Lakes from 3000-300 B.C. Actually, archaeologists generally agreed long ago that Lamoka replaced the Laurentian from the south, that Frontenac Phase was an indefensible construct, that Frost Island Phase was weak on the ground except in the Susquehanna River drainage, and that Middlesex was an open issue but very unlikely to be a phase.

Uncertainty over whether these *cultural movements* were the product of diffusion or migration is a secondary issue of little importance here because what we seem to be examining are *information clusters* of technological, social or ideational practice which apparently never passed through geographical space as combined entities whether *cults* or *cultures*. It is more likely that communication of information by exchange or in boundary/frontier contacts created new behavioral trajectories which broadened territorial control. These alterations of spatial limits due to effective control over resources and the internal consistency of social and ideational patterns give the archaeologist the appearance of spreading, when in fact only the boundaries have changed by internal cultural adaptations extending territorial maintenance.

Anomalous culture segments (e.g., Laurentian or Middlesex) are not supported by a well-defined cultural infrastructure and are consequently not migrations as amply demonstrated by Grayson (1970) and others. Diffusion, in a purposive sense, such as a cult, or as flow of "advanced" ideas to "less developed" peoples is equally impracticable as an explanation since it is only the systemic application within the region which demonstrates the efficacy of the adaptation. The lithic technology tradition discussed above strongly suggests that there were no cults; a horizon of exoticism found only in mortuary contexts but not in burial programs suggests that such goods and "ideas" were only as durable in acceptance as their passage provided a service in maintaining communication networks. If there were migrants or diffusing cultural congeries of traits, fifty years of intensive archaeology have failed to give them life in the Lower Great Lakes region, at least, in the time period examined here.

If MacNeish's four propositions are once again examined in the light of the In Situ Hypothesis proposed here, several concluding thoughts may be offered.

#### Point 1

New data both from latter day excavations and from reanalyses of older site collections and information are making accessible much material on areal differentiation and development. While this has its finite limits as inquiry, confidence in the understanding of local/regional development has risen. This fact clarifies what is or is not local, regional or even areal and eases definition by allowing the researcher to seek affiliation elsewhere rather than add to the typological clutter by creating new taxons to subsume new observations.

#### Point 2

Transformations and differentiation of systemic cultural wholes is predictable given some general deductive interpretation and creative inference. Use of a simplified developmental sequence shorn of cultural patinas made manifest by the accumulation of variant segments without systemic representation permits definition of legitimate trends toward differentiation such as Lamoka lithic experimentation or sedentarization rather than spurious variations such as a Frontenac culture or having Middlesex/Adena interpreted as a migration, diffusion, or even exchange network, using a more current and popular phrase.

#### Point 3

Systemic linkages in the Lower Great Lakes are to be found more in what is common to all - territoriality, resource control, boundary maintenance, shared technology, and information flow-than in disparate trait clusters. Selections by one or another local or regional band may then be subsumed in cultural process rather than exaggerated by taxonomic reification. Variation in projectile point form should no longer be used to validate anything other than functional distinctions and variant selection. For example, the finding of two or more "classic" types of tool in the same provenience unit should not necessarily be used as *prima facie* evidence for site disturbance with intermixture of "phases," when a functional variant explanation is equally available.

#### Point 4

It is not too difficult to conceive of Meadowood/(Middlesex) Phase in the Lower Great Lakes as sprawled over the distances from Ontario's Ault Park south to the Susquehanna River valley in southern New York or from the mid-St. Lawrence River Valley west to Michigan's Saginaw Bay at 500 B.C. (Figure 3). And it would be strange if there were not

some heterogeneity in lifestyle or "stylistic" tool morphology over such a large space. Generally the variation while present is observed more in tool forms with minor morphological differences (e.g., side-notch placement) (Figure 1) and perhaps in the fine-tuning of resource acquisition scheduling (e.g., seasonal logistics of movement). Consistent with such intra-systemic variation, selective acceptance by various Meadowood groups of external or exotic stylistic or functional variants on a spatial and/or temporal basis (e.g., Adena "traits" in burial contexts) increased heterogeneity. Only in the subsequent Middle Woodland Period would this heterogeneity result in significant and systemic cultural distinctions.

The heavy emphasis on Meadowood culture in this paper should not be construed as a statement that similar observations, are not possible for the other phases in the 3000-300 B.C. time period. Quite the reverse is true, although this author may be less familiar with them. This presents a final proposition of this paper- additional work on the question of functional or stylistic variation of lifeways in these phases. The answer to this scientific query may be found in the organization of the data around the central concept of a complete in situ sociocultural expression developing systemic relationships in time and space. Converted to the terms used herein: "Wholes is wholes".

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# A Turtle Petroglyph on the Bronx River

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*A turtle petroglyph located on a granite boulder along a hiking trail paralleling the east side of the Bronx River is described. The petroglyph may represent a trail marker or designate a hunting territory of the Delaware Indians. Comparisons can be made to other petroglyph occurrences in the area and to rock art sites in northeastern United States.*

The European discovery of North America in the fifteenth century was followed by rapid exploration of the continent including its rivers, coastline, and other natural features. Following discovery, colonization began rapidly, and this inevitably produced contact and confrontation with the native inhabitants. In time, the early settlers came upon strange carvings on rock unlike any previously seen or known in the Old World. This rock art, carved by Indians hundreds of years ago, occurred here and there across North America. Petroglyphs, or rock carvings, and pictographs, or paintings, were found on smooth cliffs, rock outcroppings, boulders and pebbles, and in caves. They consisted of human and animal representations as well as abstract symbols of varying degrees of complexity.

Almost from the beginning, the European settlers pondered many questions as they viewed the various carvings on rock: what did the Indian carver have in mind when he set his stone pick or flint graver to the rock? What were the motives behind the artwork? What do they mean? Who were these people who carved the symbols, and how long ago were they made?

Looking around us today, it is difficult to imagine that years ago the Lower Hudson and coastal New York was Indian land. Our highly urbanized and technologically advanced society has taken a heavy toll on archaeological sites that were once the settlements and work places of Native American peoples.

The Lower Hudson River, its tributary streams, and the coastal New York region have sustained Native American people over a period of at least 12,000 years. However, relatively little is known about the culture history of these coastal Algonkian-speaking people who once populated this area. Most people believe that the Native Americans of this region left little more than a few pieces of broken pottery or an occasional stone projectile point as testimony of their cultural development. As archaeologists, we know that this is not the case.

Through the years, a few Native American rock carvings or petroglyphs have been found in the coastal

New York region, and these inscriptions have been recorded or described by various researchers. These petroglyphs were carved on huge boulders, bedrock ledges, or on portable artifacts such as pendants or other small objects. Despite these discoveries however, the study of Native American rock art has been largely ignored in this area. In fact, some archaeologists believe that these rock carvings are crude and indecipherable inscriptions that can tell us little about Indian life, social organization, and beliefs prior to the coming of Europeans.

While it is true that petroglyphs are illustrations and not writing, most scholars believe that we can learn a great deal from their study. By studying rock art sites, we can gain some insight into cultural-historical relationships among them and with other aspects of Native American cultures based upon studies of content, distribution, style, and technical analysis. We can begin to get a glimpse of Native American involvement in nature and world views.

Recently, a unique American Indian rock carving was found along the Bronx River within the grounds of the New York Botanical Garden, The Bronx, New York. The symbol of a turtle was found carved into the top of a small glacial erratic or boulder that lay in the middle of a hiking trail on the east side of the river. This petroglyph was discovered by this author in the course of a cultural resources reconnaissance survey being conducted by the City Archaeology Program of the New York City Landmarks Preservation Commission. This survey was part of a "Design Through Archaeology" program, a cooperative planning effort by the Commission and the New York City Department of Cultural Affairs, and funded by the National Endowment for the Arts.

The Bronx River flows from north to south through the center of the Botanical Garden. This river originates to the north in Westchester County, New York, from where it meanders slowly southward until it enters a narrow gorge within the Botanical Garden. In the gorge, the Bronx River roars over a man-made waterfall and continues its gentle, meandering journey southward to the East River. To the Indians who first inhabited this area, the Bronx River was known as the Aquahung, meaning "a place of high bluffs or banks" (Kazimiroff 1954:25).

About 13,000 to 14,000 years ago, the entire region was covered with glacial ice. As the glacier melted and receded, the



**Figure 1.** Glacial boulder on hiking trail along east side of the Bronx River. The design of a turtle is pecked into the top surface of this rock. The Bronx River is to the rear and below this solitary boulder.

area was covered with glacial till and outwash consisting of clay, sand, gravel, and boulders that were deposited by the melting ice sheet. One glacial boulder was deposited on high ground some 11m (36 ft) to the east of the Bronx River within the gorge. Thousands of years later, this boulder would serve as a "billboard" for Native American people, as well as for modern-day graffiti artists.

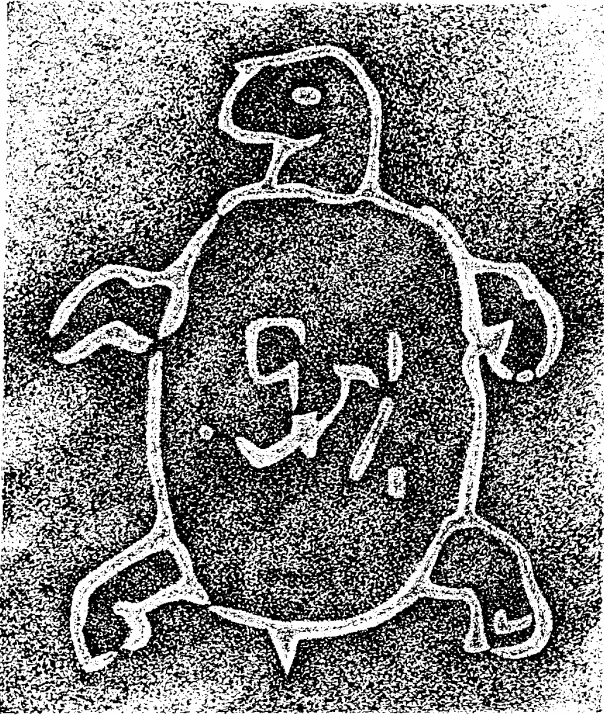
The turtle petroglyph was located along a hiking trail that parallels the east side of the Bronx River (Figure 1). The turtle design or symbol was pecked and carved into the top of a small granite boulder that lay in the middle of the trail some 6 m (20 ft) above the level of the river and about 118 m (386 ft) north of the present waterfall. This boulder or glacial erratic was in its original position, that is, it was dropped here by the retreating ice sheet about 13,000 years ago. A considerable amount of erosion had recently taken place along the entire hiking trail, and this process had exposed approximately one-third of the bottom of the boulder.

The carved design on top of the granite boulder clearly represents a turtle (Figure 2). The design is well executed and is about 13.34 cm (5.25 in) in length by 7.6 cm (3 in) in width. The head of the turtle was oriented to the north while the face

was turned to the west or toward the river. The design was pecked and incised into the stone with stone tools, clearly a difficult and laborious task on this artistic medium. The turtle design is shallow in depth and patinated, that is, it is covered with a thin film as a result of age, weathering, and probably acid rain or other air pollutants. The entire stone including the turtle carving was covered with modern graffiti. It is obvious that this stone and this site was an attractive one to present-day would-be artists as well.

The turtle petroglyph is a Native American rock carving that was executed at some time between c. A.D. 1000 and 1600. Although its meaning and purpose are not known, the turtle design may represent the turtle phratry or clan of the Munsee-speaking Delaware Indians who once occupied this area prior to the coming of the Europeans. The clan functioned as a territorial and ceremonial unit and also regulated social behavior (Newcomb 1956:53).

Many Indian habitation sites are known to have existed throughout the Bronx, and several are located in close proximity to the Botanical Garden. One site, an Indian rockshelter, is located within the Botanical Garden on the west side of the Bronx River, a short distance upstream from the turtle petro-



**Figure 2.** Drawing of turtle petroglyph. Courtesy of Tom Fitzpatrick.

glyph site. This rockshelter consists of a large slab of fallen rock that is leaning against a bedrock ledge and forms a small enclosed area. The rockshelter was used as a temporary shelter and hunting camp with water and food resources being readily available nearby. Excavations were conducted in the rockshelter many years ago by a local avocational archaeologist who reported finding pottery fragments and projectile points in the site (Kazimiroff 1959:2). The turtle petroglyph located nearby may represent a trail marker or designate a hunting territory of the Delaware Indians.

From ethnohistoric accounts, we also know that the turtle or tortoise is prominent in the creation myth of the Delaware Indians (Newcomb 1956:72). The earliest recorded creation myth is one which was related to Jasper Dankers and Peter Sluyter by a Hackensack (N.J.) Indian named Tantaqua in 1679. The myth states that at one time, the world was made up of only water. A tortoise raised its back above the water, and its shell became dry land. A large tree grew upon this dry land, and from its roots there came a sprout. The first man grew from this sprout. The tree then bent over and sent forth another sprout from which the first woman was created. All people are thus descended from these first two individuals (Dankers and Sluyter 1867:150-151).

The origin myth illustrates how the Delaware Indians perceived their physical world, that is, how it was formed, and how people came to live upon it. The Delaware Indians viewed the earth as an island surrounded by water.

The carapace of the turtle forms an island or earth-dome, and so it is the turtle who supports the earth (Ehrhardt 1984:4)

Two other turtle carvings have been found in the coastal New York area as well. A stone pendant or gorget with an incised turtle design was found at Nassanqueag Swamp, 4.8 km (3 mi) east of Setauket, Long Island, New York in the early 20th century. This turtle gorget is made from a small piece of shale and measures 7.8 cm (3 in) by 3.9 cm (1.5 in) in width. The turtle design was carved in excellent detail including the delineation of 15 sections on the back of the turtle's shell. This artifact is presently in the collection of the Museum of the American Indian Heye Foundation in New York. Finally, a turtle head effigy was found at Howland Hook, Staten Island, New York. It is made of red sandstone that was sculptured or shaped to resemble the head of a turtle. This turtle sculpture is 7.2 cm (2.8 in) in height, 6.6 cm (2.6 in) width, and 10.2 cm (4 in) in diameter and has been perforated for suspension. It has been dated to the Late Woodland Period or from c. A.D. 1300-1500 (Brawer 1983:44). This turtle effigy is now in the collection of the Seton Hall University Museum in South Orange, New Jersey.

The importance of the turtle to the Indians in the New York-New Jersey region was made evident in other ways as well. A pottery vessel rim fragment, which contains a turtle head effigy, was found at the Miller Field Site in the Upper Delaware Valley of New Jersey (Kraft 1986:150). This pottery fragment has been identified as belonging to the Minisink Phase of the Late Woodland Period which dates from around A.D. 1400 to 1735. Another example can be found in an oil portrait of Tishcohan, a prominent Delaware Indian, painted in 1735 by the Swedish-born artist Gustavus Hesselius. A turtle tattoo is present on the upper left of Tishcohan's chest (see Becker 1982:10).

Rock art sites in the northeastern United States are few in number, and most are located along the Atlantic coastline and along major rivers and streams. By way of contrast, petroglyphs have been found in large numbers in the western United States. Thus, the Bronx River petroglyph is a rare and unique find, and its discovery adds much to our knowledge of Indian life in the Lower Hudson valley and the coastal New York area.

To date, only four sites have been reported and documented in this region. In 1877, a carving of an Indian holding what appears to be a smoking pipe in his right hand was found on a rock outcrop on the east bank of the Hudson River near Rhinebeck, Dutchess County, New York (Reynolds 1931:23-25). In 1889, Garrick Mallery of the Smithsonian Institution recorded a similar petroglyph, that of an Indian presumably holding a musket, which was found on the west bank of the river near Esopus in Ulster County, New York (Mallery 1893:98). These two carvings date to the Historic-Contact Period or from around A.D. 1600 to 1750. Other permanent petroglyph finds include a carving of a bear figure on a large

glacial boulder located within the Ward Pound Ridge Reservation in Cross River, Westchester County, New York (Shoumatoff 1972), and a pecked human hand symbol on a bedrock outcrop near Jericho, Long Island, New York (Lenik 1976).

At the time of its discovery, the Bronx River petroglyph was covered with modern day graffiti consisting of names and symbols that had been made with marker pens, as well as scratch marks made with a sharp metal instrument. Because of a fear of continuing vandalism and possible destruction, the petroglyph rock has been removed from its original location. Efforts are currently underway to protect, preserve, and display this significant cultural artifact.

### Acknowledgments

I am grateful to Dr. Ralph Solecki of Columbia University for informing me of the existence of the turtle petroglyph within the grounds of the New York Botanical Garden. I am also indebted to Thomas Fitzpatrick for his invaluable assistance in recording this petroglyph.

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# A Preliminary Report Concerning a Unique Tangency of Susquehanna Tradition and Wading River Traits at a Buried Multi-Component Site on Shelter Island, New York

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*A Susquehanna Tradition blade cache was found on Shelter Island, New York. Information from the site has contributed to a better understanding of American coastal settlement patterns and the nature of the expansion of broad-blade cultures during the Late and Terminal Archaic Periods.*

## Introduction

In November, 1985, while test pitting to determine the extent of a buried site on Shelter Island, New York, the writer was fortunate enough to discover a Susquehanna Tradition blade cache - the first of its kind reported for Shelter Island and for Long Island as well. From May through November of the following year, 48.8 sq m (525 sq ft) of earth was excavated at the site, and the results of that work are the subject of this report.

We hope that our findings will contribute to a fuller understanding of prehistoric Amerind coastal settlement patterns, which some archaeologists consider distorted through site-investigation bias favoring the excavation of large shell middens which are, on Shelter Island, "few compared to literally hundreds of small, special purpose camps" (Lightfoot, Kalin, Lindauer, and Wicks 1985:59-82).<sup>1</sup>

Also, considering the current debate in northeastern archaeology over the nature of the Susquehanna Tradition and the mechanism for its expansion (Turnbaugh 1975), the blade cache under discussion should be of interest particularly to archaeologists concerned with the dispersal of broad-blade cultures during the Late and Terminal Archaic Periods.

Finally, this report adds to a small body of work (see Brush and Brush 1982; Latham 1957; Lightfoot 1986; Lightfoot, Kalin and Moore 1985; Lightfoot, Kalin, Lindauer, and Wicks 1985) concerned with the prehistory of Shelter Island where accelerated development, particularly along the shoreline, makes the need for documenting buried sites increasingly acute.

1. In reviewing site reports from coastal New York to characterize the published data base and determine the overall percentage of sites that can be classified as shell middens. Lightfoot calculates that only six lithic and/or ceramic scatters (6% of the total) have been described in the published literature considered in his review of 93 articles.

## Site Location

Shelter Island is separated from Long Island Sound and the Atlantic Ocean by the north and south "forks" of Long Island, and it is situated midway along a glacial island archipelago that stretches along the northern edge of the North Atlantic coastal plain province from Staten Island to Cape Cod (Figure 1). Its morainal topography is the result of one or more advances of the Late Wisconsin glacier, and its present shoreline was formed by a post-glacial eustatic rise of sea level and the subsequent construction of beaches and dunes by wind and waves.<sup>2</sup>

Unnamed at present, the site under discussion is located on a low-lying tongue of land bordering a lagoon verged by tidal wetlands on Shelter Island's southwestern shoreline. Test pitting indicates that the site is predominantly a lithic scatter measuring about 243.8 m (800 ft) east-west by 38.1 m (125 ft) north-south. It is characterized by mixed deciduous woodlands of black oak (*Quercus velutina*) and mockernut hickory (*Carya tomentosa*) merging with salt marsh.

At its highest elevation, the site is only about 1.5 m (5 ft) above mean high water, and the lithic scatter we investigated here continues into the marsh to depths of 0.31 m (12 in) or more under the salt peat. This kind of submergence has been observed elsewhere on Long Island, and "the same phenomenon has been recorded for coastal Connecticut" (Brush and Brush 1982:106).<sup>3</sup>

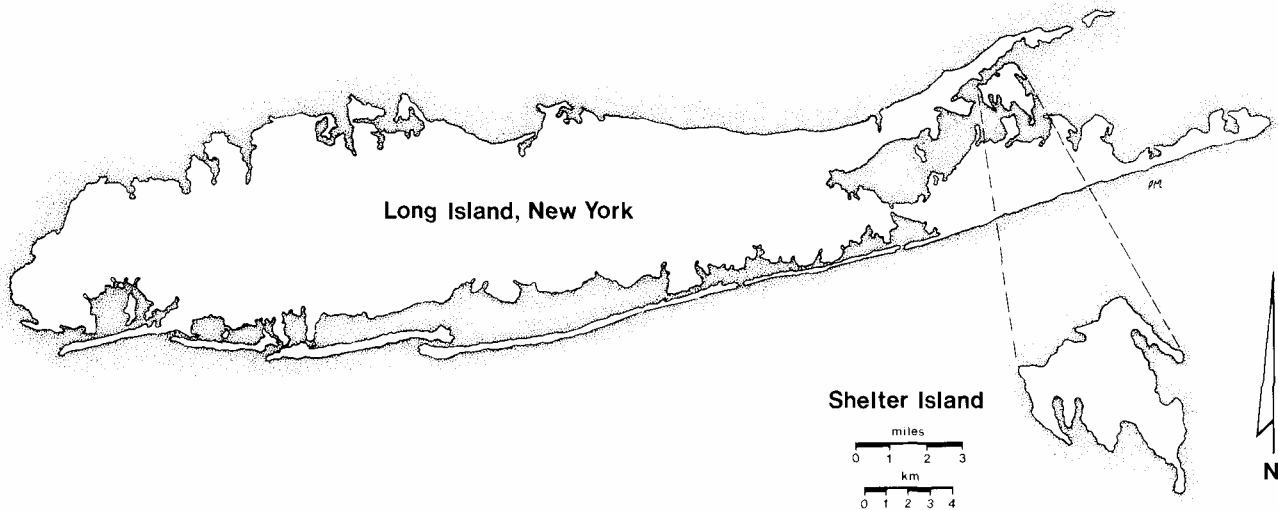
Although most of Shelter Island came under varieties of agricultural cultivation by the late nineteenth century, the site seems not to have been fanned or built upon. There is no indication of a plow zone. Presumably the soil profile is the result of a progression of natural events.

Potable water from a freshwater pond several hundred feet northeast of the site is available presently, and a number of permanent and seasonally-filled kettle holes are close by. The

2. For an authoritative discussion of the geography of Shelter Island, see Englebright 1983.

3. "Our limited experience indicates that these sub-marsh deposits are not always of a midden nature, but sometimes consist of vast quantities of firecracked rocks and stone chipping debris" (Brush and Brush 1982:106 - quoting Ronald J. Wyatt 1980: letter to John Gittler).





**Figure 1.** Shelter Island, New York.

site is located in a way that shields it from the prevailing winds, which generally blow from the northwest.

While steps may be taken to register the location of the site with New York State, the precise location is not specified here in keeping with the wishes of the owners. Their generous permission for the writer to excavate is gratefully acknowledged at this time, as is the cooperation they kindly extended as work progressed.

### The Blade Cache

When the cache was unearthed, the topmost blade (CC85-1) was only 14 cm (5.5 in) from the surface. The cache terminated 33 cm (13 in) from the surface and consisted of 20 blades stacked in a pile that had been deposited in a pit, although no indication of a pit was evident (see Figure 2). All the blades were stacked flat, horizontally, and several pointed in different directions.

The cache blades were recovered from a subsoil of tan sandy clay and all of them, except one specimen (CC-85-4), were heavily encrusted with a tough, non-soluble tan patina.<sup>4</sup>

4. Iron salts are a major presence in the soil and may account for the blades' encrustation. "The patinated surface of a stone, being more porous than the unaffected rock beneath it, will absorb iron salts and so become colored yellow" (Goodyear 1971:122).

5. This was the opinion of Dr. Roberta Lightfoot (personal communication 1986) about one blade, which she had the opportunity to examine but briefly.

Magnification reveals that the surfaces of some blades are speckled with minute grains of what might be hematite.<sup>5</sup>

Nineteen of the 20 cache blades are bifacially chipped preforms characterized by broad, shallow primary flaking scars. An exception is CC-84-4 (Figure 2:4), which is chipped unifacially.<sup>6</sup>

Although expressing understandable reluctance to "type" artifacts from photographs, Dr. Dena F. Dincauze of the University of Massachusetts at Amherst was kind enough to comment that "the bifaces almost certainly must belong to the Susquehanna Tradition." Three (Figure 2: specimens 6, 9, and 10) "resemble most closely the cache blades associated with Atlantic bifaces in New England." Four (Figure 2: specimens 7, 12, 16, and 17) "look like Atlantic bifaces a little farther along than the preforms" (Dincauze, personal communication 1986). These last four specimens exhibit pronounced contracting stems. In this regard they correspond closely to the designation, "Corner-removed, Type 7" in the system for the classification of stone implements in the northeast adopted by the Massachusetts Archaeological Society (Fowler 1963:2).

In addition, the blades are similar, morphologically, to

6. The unmodified anterior surface of this blade brings to mind the observation that the spalls from which Susquehanna Broadblades were made were natural frost-broken sheets of rock and that frequently "the blanks preserve a large part of one flat weathered surface of such a natural spall" (Witthoft 1953:8).

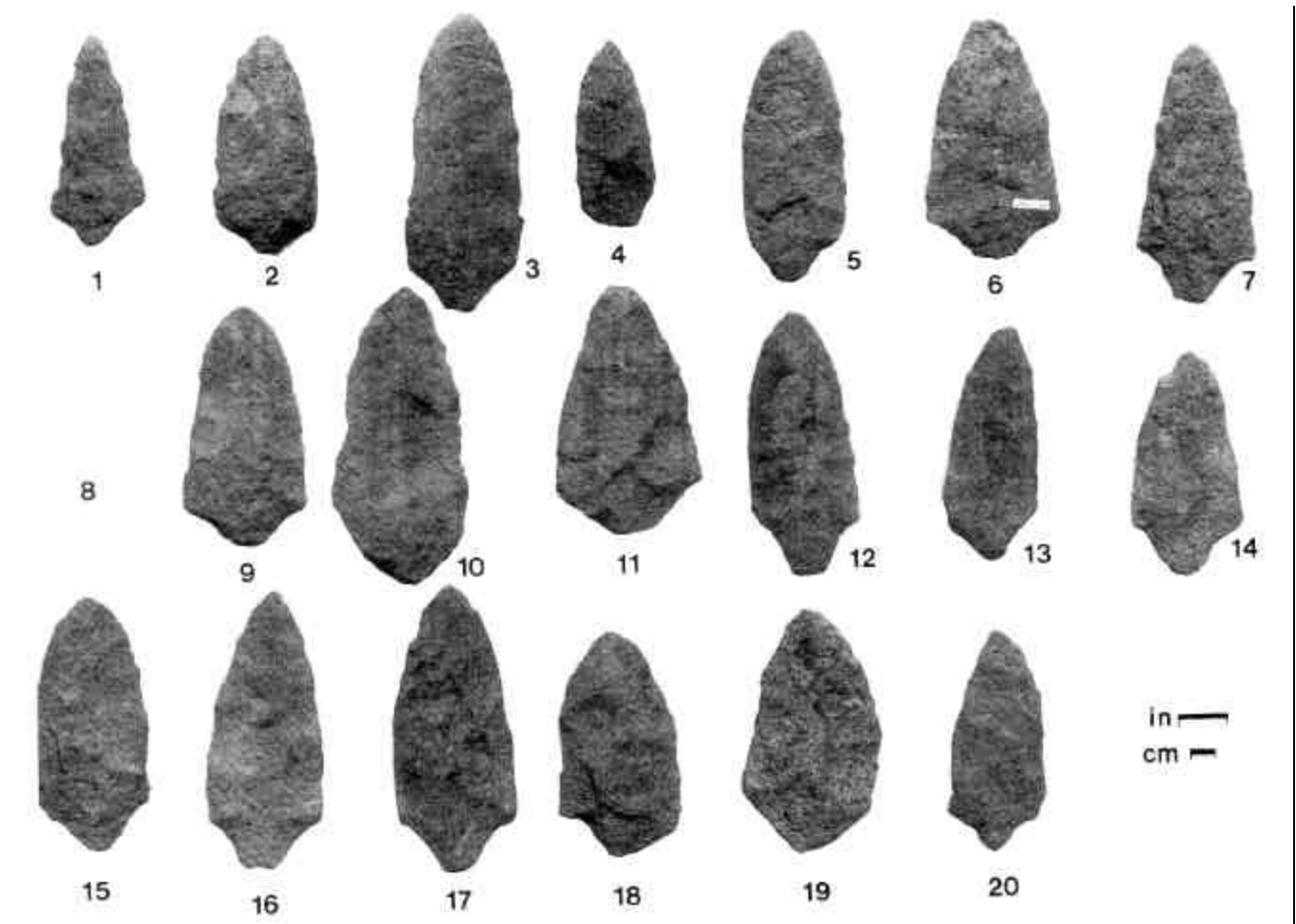


Figure 2. Susquehanna tradition cache blades from Shelter Island. Material: 1-20, basalt. Object 8 removed for study.

some of the Snook Kill artifacts illustrated in *The Archaeology of New York State* (Ritchie 1965:137). They resemble most closely of all the cache blades from the Nourse Collection at the Peabody Museum in Salem, Massachusetts, the significance of which was first noted in the *Massachusetts Archaeological Society Bulletin* (Hadlock 1948:73-741).<sup>7</sup>

At the request of Dr. Kent Lightfoot of the State University of New York, Stony Brook, Dr. Gilbert Hansen of the same university, Dr. Robert Kalin of Suffolk County Community College, and John Pfeiffer of Wesleyan University examined the one broken specimen in the collection (CC-85-8). In their opinion, the blade is made of basalt, which is exotic on Shelter Island and Long Island. It appears that all the cache blades are

made of the same mineral. Excavation would reveal eight additional fragments of patinated basalt, all within 1.5 m (5 ft) or less of the blade cache.<sup>8</sup>

### Excavation

Two 91 cm (36 in) galvanized iron pipes were driven into the ground to serve as datum points, and a grid of 1.5 m (5 ft) squares was established along north-south and east-west base lines. The grid could then be located on a USGS topographic map.

After turbing individual squares, excavation by arbitrary levels of approximately 1.3 cm (0.5 in) was executed by *rabo-*

7. An earlier article in the same publication describes the excavation in Andover, Massachusetts of "spearpoints" which resemble the Shelter Island blades (Hofman 1943:11-14).

8. A possible source of this mineral are the Triassic basalt outcroppings which run north/south for approximately 30 miles between Pompton Lakes and Bound Brook in Bergen, Essex, and Union Counties in western New Jersey. Western Pennsylvania and Southern Connecticut are other possible source locales.

**Table 1.** Dimensions of Cached Shelter Island Blades

Specimen No.	Length		Basal Width		Max. Thickness	
	cm	in	cm	in	cm	in
CC-85-01	10.6	4.2	5.0	2.0	0.8	0.3
CC-85-02	11.4	4.5	6.0	2.4	1.1	0.4
CC-85-03	15.4	6.1	6.0	2.4	0.95	0.4
CC-85-04	9.5	3.8	4.0	1.6	1.3	0.5
CC-85-05	13.0	5.1	5.2	2.1	1.4	0.6
CC-85-06	12.7	5.0	7.0	2.8	1.4	0.6
CC-85-07	13.3	5.2	6.0	2.4	1.3	0.5
CC-85-08	12.0	4.8	5.0	2.0	1.1	0.4
CC-85-09	12.7	5.0	6.3	2.5	1.6	0.6
CC-85-10	13.0	5.1	7.6	3.0	1.6	0.6
CC-85-11	16.0	6.1	7.0	2.8	1.4	0.6
CC-85-12	14.0	5.5	5.7	2.2	1.3	0.5
CC-85-13	12.4	4.9	5.0	2.0	0.6	0.3
CC-85-14	11.7	4.6	5.7	2.2	0.6	0.3
CC-85-15	13.3	5.2	6.0	2.4	1.4	0.6
CC-85-16	14.6	5.8	6.2	2.4	0.95	0.4
CC-85-17	15.1	5.3	6.3	2.5	0.95	0.4
CC-85-18	11.7	4.6	6.3	2.5	1.7	0.7
CC-85-19	12.7	5.0	7.0	2.8	1.3	0.5
CC-85-20	11.6	4.6	5.0	2.0	1.1	0.4

tuge. When features were encountered, excavation proceeded by vertical section. Humic material and excavated soil were screened and sifted through 0.25 in mesh before it was consigned to the spoilpile.

Balks measuring 15.2 cm (6 in) wide were maintained to observe stratification, and excavation was carried out until sterile soil was reached, after which the square was probed for a depth of 15.2-30.5 cm (6-12 in) further before work ceased. Unfortunately, only faint stratification as a result of human occupation was evidenced in the balks.

The natural stratification of the podzolic soil was simple and consisted of an AO zone of root mat and leaf accumulation 1.3-2.5 cm (0.5-1.0 in) deep; an A zone of black-brown sandy mobile humus 2.5-5.0 cm (1-2 in) deep; and a B zone of tan sandy clay continuing to an undetermined depth.

Heavy incursions of roots everywhere made excavation difficult. pH tests of site soil samples with Hellige Truog reagents yielded an average reading of 4.9 (strongly-very strongly acid), which is typical for Long Island and which would tend to account for our finding no osseous material at all. Many soil samples were taken for future study.

Small amounts of non-diagnostic artifactual materials such as quartz decortication flakes and small shatter fragments of quartz and quartzite were present in the A zone soil, as were random fragments of charcoal and a single broken specimen of

hard clam, *Venus mercenaria*.

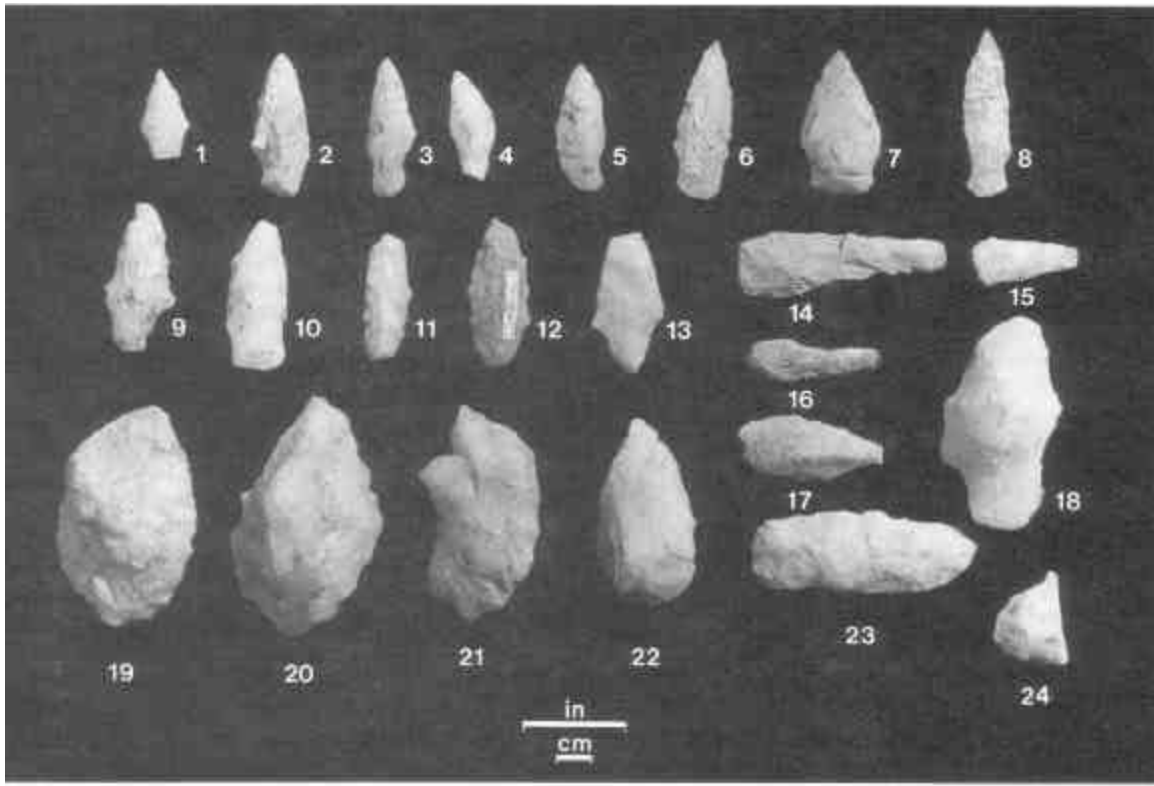
However, the majority of artifactual materials appeared in B zone soil at a depth from the surface of 11.4-30.5 cm (4.5-12.0 in). This material can be characterized as a heavy lithic scatter comprised of fire-cracked rock; chipping debris, pebble cores, unworked pebbles, and artifacts of quartz and quartzite; plus small quantities of hematite, granite, schist, basalt, shale, and charcoal fragments.

The first square excavated was the one that had contained the blade cache, which was followed by the excavation of contiguous squares. Excavation went on for six months, about five hours per day, five days a week. At the end of this time 21 squares amounting to 48.8 sq m (525 sq ft) had been explored.

### Features

Four distinct features were excavated and recorded. The first was the blade cache, designated as Feature 1. Three rock clusters - all within four ft of the cache, and designated as Features 2, 3, and 4 - were also studied.

In addition, four possible features were noted. Two were small concentrations of about six stones apiece, which were clustered tightly enough to stand out from the surrounding lithic scatter. Another was a concentration of fire-reddened quartz pebbles, which seemed to be boiling stones, but which



**Figure 3.** Diagnostic and non-diagnostic artifacts from Shelter Island Site. 1, 2, 3, 6 Wading River ("short" or "narrow stemmed") projectile points; 4, 5 knives, combination tools or Wading River projectile points; 7, 8 Orient Fishtail projectile points; 9, 10, 11, 12 problematic points; 13 Rossville projectile point; 14, 15, 16 drill; 17 drill or graver; 18 discarded point blank, 19, 20, 21 crescentic knives; 22 lanceolate knife; 23 biface blade knife; 24 biface blade fragment with possible graver spur. Material: all quartz, except: quartzite 7, 17; siltstone 14; basalt (?) 16.

could not be studied in situ due to an overburden of thick roots that were not disturbed. Near the southern perimeter of the dig, 14 cm (5.5 in) from the surface, a possible post mold was revealed - a dark oval stain, 10 cm (4 in) by 13 cm (5 in) across. It extended vertically for 43.2 cm (17 in) and tapered to a point. It was photographed in horizontal and vertical cross-section, and samples of it were preserved, but it is possible that this dark, humic deposit was produced by a tapering tap root that rotted where it had grown.

The top of Feature 2 occurred in B zone soil and was 17.8 cm (7 in) from the surface. The feature consisted of 98 quartz and quartzite pebble boiling stones, most of which were fire reddened and were, on the average, about 6.4 cm (2.5 in) long. Three quartzite cobbles associated with this feature and contacting the boiling stones were located to the north. The feature also contained a number of heat-shatter fragments, as well as an amorphous ferruginous conglomerate, 15 cm (6 in) long. No charcoal was associated with this or any other feature.

The center of Feature 3 was located only 3 ft south of the blade cache, and the top of it was 14 cm (5.5

in) from the surface in B zone soil. Feature 3 was a "platform hearth," a shallow circle of 67 stones that were, for the most part, 7 cm long (2.75 in) or smaller. Many were cracked by fire, and two connecting pieces were found in situ 20 cm (8 in) apart. The stones were arranged in a single layer and were not piled one atop another.

Three quartz decortication flakes lay on the surface of Feature 3, and several fragments of shattered rock were found beneath it, 21.6 cm (8.5 in) from the surface.

Feature 4 was a small pit of crumbly, fist-sized, mostly quartzite pebbles, about 35.6 cm (14 in) in diameter, located in B zone sandy clay 127 cm (50 in) southwest of the blade cache. It was 24 cm (9.5 in) below the surface. A broken Rossville point, which might have been intrusive, lay near the uppermost stones of this feature, as did four flakes of quartz and a single flake of exotic green siltstone.

Considerable debitage from lithic tool-making lay around this hearth. Fragments of quartz biface blades, hammerstones, an anvil stone, pebble cores, and quartz decortication flakes were recovered nearby.

**Table 2.** Shelter Island Site Trait Table.

Specimen	Square	Description	Material
CC-86-21	N10E0	Graver (?)	White quartz
CC-86-23	N10E0	Expanded base drill	Green siltstone
CC-86-32	N10E5	Wading River point	White quartz
CC-86-33	N15E5	Projectile point (problematic)	White quartz
CC-86-34	N15E5	Wading River point	White quartz
CC-86-35	N15E5	Wading River point	Crystal quartz
CC-86-38	N15E0	Wading River point	White quartz
CC-86-41	N10W0	Projectile point (problematic)	White quartz
CC-86-43	N10W0	Rossville point	White quartz
CC-86-44	N0E0	Wading River point	White quartz
CC-86-45	N0E0	Projectile point (problematic)	White quartz
CC-86-46	N0E0	Projectile point (problematic)	White quartz
CC-86-47	N0E0	Orient Fishtail point (variant)	Gray quartzite
CC-86-48	N0E5	(Problematic point or tool)	White quartz
CC-86-49	N5E10	Backed knife	White quartz
CC-86-51	S0E0	Rude crescent knife	White quartz
CC-86-53	S0W0	Drill or point fragment	Crystal quartz
CC-86-54	S0W0	Biface blade knife	White quartz
CC-86-55	S0W0	Orient Fishtail point	Crystal quartz
CC-86-57	S0E5	Drill or graver	White quartz
CC-86-60	Balk B0/B+1	Quartz pebble knife	White quartz
CC-86-63	Spoilpile	Expanded base drill	Basalt (?)

## Artifacts

One-thousand three-hundred fifty-nine pieces of artifactual material were recovered and recorded. Most of this material was found between 13 and 25 cm (5 and 10 in) from the surface and consists of primary, secondary, and tertiary decortication flakes of white and crystal quartz. Quartz flakes were ubiquitous but tended to be concentrated in particular areas, especially near rock clusters, where scatter patterns from stone knapping were observable. These "workstations" are also characterized by collections of unworked quartz pebbles of various sizes, which were probably stores of raw material for making stone tools.

Hammerstones are the most common artifact and numbered 169 including problematics. They are made of quartz or quartzite and range in size from large pebbles to marble-size tools.

Thirteen quartz projectile points were photographed in situ, collected, and cataloged (Ritchie 1971). Six, including a small "birdpoint," correspond typologically to the Wading River point; two are varieties of Orient Fishtail points (Ritchie 1959:32); one is a Rossville point; and four are problematic. These problematic points share much in common with the Wading River variety, but they display distinctly serrated edges and are generally much cruder.

Four broken drills were recovered. The longest, made of exotic green siltstone, measures 6.1 cm (2.38 in) in length from its expanded base to a broken tip. Four additional flakes of this same mineral were found during excavation.

Six knives were also recovered. Four of them are thick artifacts made from bifacially-chipped quartz pebbles, and they display prominent excurvate cutting edges. Two may have been crafted intentionally for use in the left hand. A fifth knife, showing much of the original pebble cortex, is lanceolate in shape. Two connecting pieces which comprise a rectangular biface blade knife of white quartz were also found.

The artifact inventory also includes 26 white quartz biface blade fragments, one of which possesses a possible graver spur.

All the artifacts and the preponderance of debitage are of quartz or quartzite, the only exceptions being 2 drills, the 20 basalt cache blades, and 8 large flakes and fragments of cache blade basalt, the significance of which will be discussed in the following section.

## Discussion

Although biface blade caches have been reported for Long Island (Kaplan and Mills 1976; Saville 1925) and are also known from public and private collections, no one to the

**Table 2.** Shelter Island Site Trait Table (continued)

Depth from		Surface cm	Length in.	Basal Width		Max Thickness	
cm	in			cm	in	cm	in
21.6	8.5	2.5	1.0	1.9	0.8	0.8	0.3
20.0	8.0	6.0	2.4	1.9	0.8	0.8	0.3
15.0	6.0	4.4	1.8	1.7	0.7	0.95	0.4
10.8	4.2	4.4	1.8	2.1	0.8	0.5	0.2
17.8	7.0	4.1	1.6	1.6	0.6	0.95	0.4
17.8	7.0	4.1	1.6	1.4	0.6	0.8	0.3
15.0	6.0	3.2	1.3	1.3	0.5	0.8	0.3
11.4	4.5	4.4	1.8	1.9	0.8	0.8	0.3
24.4	9.5	4.1	1.6	2.2	0.9	0.6	0.3
7.6	3.0	2.5	1.0	1.4	0.6	0.6	0.3
13.9	5.5	4.4	1.8	1.3	0.5	0.95	0.4
?	?	3.8	1.5	1.4	0.6	0.95	0.4
13.9	5.5	4.1	1.6	2.2	0.9	1.1	0.4
13.9	5.5	3.6	1.4	1.4	0.6	0.8	0.3
19.0	7.5	7.6	2.9	4.2	1.7	2.2	0.9
16.5	6.5	6.5	2.6	1.4	0.6	1.2	0.5
5.0	2.0	3.0	1.2	1.4	0.6	0.6	0.3
27.9	11.0	4.7	1.9	1.6	0.6	0.95	0.4
16.5	6.5	6.7	2.6	2.4	0.9	1.1	0.4
26.6	10.5	4.4	1.8	1.9	0.8	0.95	0.4
16.5	6.5	6.7	2.6	4.1	1.6	2.4	0.9
?	?	3.8	1.5	1.3	0.5	0.6	0.3

writer's knowledge has reported a cache of Susquehanna Tradition artifacts for either Shelter Island or Long Island. The situation is quite different in New England, however, where broad blades appear much more frequently (see Dincauze 1972; Hadlock 1948; Hofman 1943; Pfeiffer 1984).

Of particular importance in light of the Shelter Island cache blades is the Griffin Site in Old Lyme, Connecticut (Pfeiffer 1980). At least 170 Boats and Mansion Inn type blades were excavated at this cremation site, and radiometric dates of  $3545 \pm 160$  B.P. and  $3495 \pm 150$  B.P. have been obtained for it. Fifty pecked and ground axes of basalt were recovered at the Griffin Site, and its excavator has commented that the single Shelter Island blade he examined resembles some of the Griffin Site artifacts (Pfeiffer, personal communication, 1987). Other site parallels exist including the absence of shell, the absence of tools related to fishing, evidence of a brief period of occupation, and the use of non-local lithic materials. The two sites are only 27 air km (17 mi) apart, and one can readily imagine a riverine Susquehanna Tradition group making the trip across Long Island Sound via dugout boat.

Also included in the mosaic of broad-blade culture activity in the area is the Great Pond Site near Lake Montauk on Long Island's south fork (Ritchie 1965:138-139). Here, 35 air km (22 mi) due east of Shelter Island, two Susquehanna Tradition cremation burials containing

Snook Kill-like projectile point grave offerings were reported.

The Susquehanna cache blades from Shelter Island do not seem to have been deposited as the result of a single depositional event unrelated to other activities at the site. The cache location appears to have been chosen in relation to the nearby rock clusters, one of which, Feature 3, is a typical Susquehanna Tradition manifestation, and another of which, Feature 2, the mass of boiling stones, indicates a pre-ceramic temporal orientation. The basalt flakes recovered near the blades (but which do not connect with them) is tentative evidence of stone-knapping by those who deposited the blades. It remains to be seen if further excavation will indicate other activities at the Shelter Island Site that would establish more conclusively the visitors' identity.

There is also the larger question as to the nature of the site in general. Susquehanna features, non-diagnostic features, and the presence of a variety of projectile point types oblige us to call it a multi-component site. If these factors were used to identify the site temporally, we would have to span the millennium from 1700 to 700 B.C., which has been used to quantify the Terminal Archaic Period (Snow 1980:235).

However, it is evident that most of the material at the Shelter Island Site belongs to a single occupational level characterized by a floor of broken and fire-cracked rock with a sparse intermingling of local quartz artifacts. Although char-

coal fragments and soil samples collected from this level may be used to date the site in the future, for the present we must rely upon the debatable method of dating by type, which also points to the Terminal Archaic.<sup>9</sup>

Artifactual material suggests that the site served as a small, special-purpose camp, possibly a procurement station concerned with food-processing activities. Quartz tool making was carried out there, and the presence of projectile points and knives suggest hunting and butchering. The lithic scatter is another indication of food processing, but the only clue as to what that food might have been is the absence of shell and fishing equipment, which strengthens arguments in favor of hunting or nut-harvesting activities.

We tend to rule out the site as a residential base occupied by family units seasonally or year-round. As has been observed, "Such bases, in contrast to special purpose camps, should be characterized by much more diverse assemblages of artifacts, representing the material remains of many varied domestic, subsistence, and tool making chores" (Lightfoot, Kalin, Lindauer, and Wicks 1985:75).

Based upon the evidence obtained through excavation, it is difficult to argue that contact occurred between Susquehanna people who might have visited the site, and the local Indians who exploited resources there, although this certainly warrants further study. However, it may be suggested that the broad, preform blades might well have served as trade goods, and that their presence at the site bespeaks some sort of contact between the groups (see Custer 1984:98-99).<sup>10</sup> If this could be established, it would tend to support the assumption that there was a benign coexistence between the small groups of Late Archaic peoples who crafted narrow-stemmed Wading River points, and the makers of broad blades as has often been proposed (Dincauze 1975:27; Funk 1984:135; Ritchie 1969:219).

The discoveries on Shelter Island are further clues about the movements and practices of broad blade-using people during the Terminal Archaic Period. The evidence on record for eastern Long Island and nearby southern Connecticut suggests that incursions by small groups of these wayfaring Amerinds were brief and perhaps hazardous, as evidenced by the size and number of burial sites as opposed to habitation sites in this region.

In the future, attempts will be made to identify the source of the cache blade basalt and to associate it with artifacts from other sites. Also, selective excavation and further site sampling may be undertaken to help determine the boundaries of a catchment range pertaining to the site under discussion, and to locate a base camp within that range.

9. This assumption is based on the proximity of Susquehanna Tradition and Wading River artifacts plus the absence of steatite and ceramics. It is understood, however, that "The time span for the wading River complex, *per se* is unknown" (Wyatt 1977:406).

Finally, this and future reports concerning the site will need to be correlated with the results of ongoing work on Fishers Island, Block Island, eastern Long Island, southern Connecticut, and elsewhere on Shelter Island. Such an effort should bring us closer to giving proper weight to conflicting models concerning the expansion of the Susquehanna Tradition."

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10. If preforms like these with their corners removed and stems partially shaped were trade goods, the preliminary roughing out they underwent could serve as a "blueprint" for the new owner. Thus, Susquehanna Tradition peoples might have encouraged inadvertently or intentionally the persistence of their artifact "types" among other groups.

11. "Documentation of the replacement of the Squibnocket Complex by the Susquehanna Tradition ... [has] eluded prehistorians working in coastal Connecticut, New York, and Massachusetts; and on Long Island there appears to be a hiatus in the archaeological record until the appearance of the Orient Phase in the first millennium B.C." (Gramly 1977:20).

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# The Warrior Spring Site Paleo-Indian Assemblage, or Paleo-Indian By Default

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*Tool forms of Paleo-Indian shape and material have been found in fair quantity on a mixed river-edge site in Wyoming County, Pennsylvania. The author feels that the site, the artifact assemblage, and the methods used to isolate them should be noted. Site 36LY195 is a high river-edge site in Wyoming County, Pennsylvania, just outside Muncy. Elevation is such that the site has never, flooded, even under extreme conditions- such as during Hurricane Agnes in 1972. Warrior Spring, of historical note, is located at the northern end of the site and presumably figured prominently in the travels of Indians as a stopover, as many well-known paths converge in the near-by area.*

Under treeless conditions the Warrior Spring Site commands a view both up and down river as the Susquehanna at this point makes a wide bend around Bald Eagle Mountain. This whole stretch has no dearth of Paleo-Indian artifacts, and 52 fluted points or parts thereof were noted by Richard P. Johnston and the author in a recently published study (Fogelman and Johnston 1987). This total can be increased by two, as this past spring and summer (1987) two more were found on the site under discussion, bringing to seven the number found there.

Besides the points, however, the site yields numerous Paleo-Indian tool forms of exotic lithics, and it is these that I wish to highlight. I have searched this site since 1975, and have always been cognizant of the many exotic scrapers that occurred there. I attached no great significance to them at first because of the mixed nature of the site, but the numbers of them that surfaced was intriguing even for a site such as this. Such high river-edge sites are a collector's dream in the surrounding area. It was a prime campsite location, as the remains of many cultural entities turn up there; thus the site is far from pure PaleoIndian. Artifacts from Paleo-Indian to Contact times surface.

There is a very strong indication of Early Archaic in the form of Kirk points and bifurcates. Laurentian artifacts are especially numerous. Stemmed points of the Piedmont Archaic occur as do Lamoka or related small-stemmed points. The Terminal Archaic is well represented, especially by Susquehanna Broadpoints. From the Terminal Archaic on, occupation was not so intense, although the rare Meadowood, Jack's Reef, or Fox Creek point will turn up. Late Woodland triangles are only slightly represented. Pottery is very scarce, and obviously this site was not nearly so desirable later in time.

It was during research on the Shoop Paleo-Indian Site that it all came together. While handling and becoming familiar with Paleo-Indian forms, I realized I was finding the very same forms on many sites but in particular on 36LY 195. Most would argue that placing material from a mixed site is hazardous. Naturally I agree, but such determinations can be made, particularly if there is knowledge of what the Surrounding area yields. This knowledge, coupled with other research avenues, is revealing.

Site 36LY195 has a long history of collecting. Although many collected there the site was never registered until I did so a number of years ago. The present owners, the Logues, have been there for 36 years. During that time they have collected on the site off and on and now maintain a selection of mainly projectile points from the site. A nephew, Bill Logue, also maintains a variety of material from the site, and Rich Johnston has some artifacts that he found there. Johnston also maintains a select grouping made by former owners of the site before the Logues took over. Many others have looked there, but there is no telling what they found. Al Logue believes that a collection was gathered by a local man who donated it to Bucknell University, where it perished in a fire.

While not recognizing the tool forms immediately, I was well aware of the unique lithic materials and that many of them were tools. This fact was not recognized by earlier collectors, and this accounts somewhat for the number of artifacts that I have been able to find. I look specifically for them. In the collection that Johnston obtained from the site, for example, among the many hundreds of projectiles there were only two scrapers, and these were of unique and colorful flints. There were also two fluted points (Figure 1e and f) in that collection and a broken lanceolate that is probably Paleo-Indian (Figure 1j). One fluted point (Figure 1d) was found this past spring by Marie Logue. Another (Figure 1g) is in the Byron Parker collection, and the other points and preforms are in my own collection from the site.

Out of the 1000+ artifacts that I have found on the site in the past 12 years, I have identified approximately 156 tools as Paleo-Indian material. Still others are candidates, but as they do not conform either in lithic material or form, they are not included at this time. Still more reside in the collections mentioned, and the remainder of the total reported here comes from those collections. Also, for purposes of this report, I have viewed all the collections noted, bringing the total artifacts,

that have been examined, complete and broken, to upwards of 2000+.

The site itself covers approximately 2 ha (5 acres). PaleoIndian artifacts occur over most of the site but are concentrated along the river edge, and on the elevated areas of the site.

### Process of Elimination

The first step in my analysis was to determine if these tool forms of exotic material could be associated with local cultural assemblages from any other time periods. Thus, research was undertaken to compare the flints with local assemblages to see if any relationships were apparent. This was moderately successful, and many cultures could be eliminated at this stage. Some of the exotic lithics do occur in the assemblages of later cultures. However, some of the flints here assigned PaleoIndian age have never occurred in some of the areas various cultural artifact assemblages.

The second step was to contact others in the Northeast and question them concerning their experiences with scrapers and tools of exotic lithics. In this line I contacted Dr. Michael Gramly, Dr. Robert Funk, Dr. Roger Moeller, Stan Lantz, and Floyd Painter. They also viewed many of the tools with which I was working. All agreed that the forms were very reminiscent of Paleo-Indian forms, more than likely were Paleo-Indian, but proving it from a mixed site may be difficult. However, I would not abandon my research. Perhaps something could be determined, after all, by the process of elimination.

A fourth step was also undertaken in which I visited collectors in certain areas to examine their scraper assemblages. Chosen were the Fishing Creek drainage of Columbia County, the Penns Creek and Middle Creek drainages of Snyder County, the Crooked Creek drainage of Indiana County, and the Chillesquaque drainage of Montour County. These were mainly Archaic assemblages and acted as control groups while analyzing the Archaic Period. Nowhere did I find the abundance of exotic lithic materials nor the forms with which I was working from site 36LY195, except noting rare Paleo-Indian forms in those collections. Research was also undertaken in literature, looking for tool assemblages from various cultural time periods. Here, then, are my thoughts and conclusions after all the above were undertaken.

Scrapers of Paleo-Indian form are known for Early Archaic assemblages south of Pennsylvania. Early Archaic point styles do occur on 36LY 195, and some of these are exotic flints (e.g., Onondaga, Coshocton). This is the only instance I could find of a direct crossover in lithic material. However, the occurrence of exotic flints among Early Archaic forms such as Kirk points and bifurcates is not nearly so intense as the use of such materials by Paleo-Indian people. In fact, there is a noted trend in the Early Archaic of the surrounding area to rely on localized flints and cherts, with an emphasis on areas west and south of here as the origins of

much of the flint used then, namely rhyolite, Penns Creek cherts, and Houserville Jasper. As yet, Early Archaic sites have not been excavated either locally or for a large surrounding area. Thus it is possible to present an argument that the scrapers and tool forms of exotic material are Early Archaic in origin. This argument is weakened by the trend noted for Early Archaic material to be more localized in origins, and is further weakened when we look at tool forms. Also, to accept the material as Early Archaic would be to accept that the Early Archaic peoples used some flints for their projectiles (local material), and exotic flints for their tools, and never used some of the exotic flints for projectiles. I have never heard anywhere that this has been noted for the Early Archaic. By the same token, such a trend is noted for Paleo-Indian assemblages, where tool kits usually consist of good grade lithics, often exotic, and often material that cannot easily be identified. In addition, scraper and other tool forms are often found of materials of which fluted points are not typically made.

Next, we look at the Middle to Late Archaic time period, and I am going to state that the assemblage under discussion does not originate in the Archaic. Local Archaic material is virtually all of local origins, or nearly so. Although a rare point that is definitely Archaic in form will turn up of Onondaga chert or Belleville chalcedony, these are scarce and there was apparently no attempt by these people to obtain fine-grained lithics from distant places. Further, scraper forms of the Archaic are very different in form. Hafted scrapers are very common, as are scrapers made from broken tips and scrapers made from random chunks and spalls of local materials. There seems to be no trend in form in the chunk and spall scrapers.

The stemmed points of the Piedmont Archaic Period occur on the site, but scraper forms to my knowledge are very rare in the Piedmont assemblages, and even more rare is the use of exotic lithics by these groups.

We now move on to the Transitional or Terminal Archaic Period. This time is well represented on the site by the occurrence of Susquehanna Broadpoints, Drybrook Fishtails, and the occasional Perkiomen Broadpoint or Orient Fishtail. All these are often made of rhyolite. Here again scraper forms are all but absent from the assemblages of these people, and only rarely will the use of an exotic lithic material be noted in their projectile/knife forms.

From here on, as previously noted, occupation of not only this site but the surrounding areas is sporadic. This is important, for if any other time period could be responsible for the exotic material, it would be the Early and Middle Woodland cultures when once again fine grade materials were eagerly sought, used, and traded. However, cultural remains from this time are only meagerly represented. A major argument here, besides the definite materials, is that I doubt very much if a later culture, using mainly exotic good grade flints and producing tools exactly like Paleo-Indian forms, could have inhabited this site and left hundreds of tools behind, without other identifi-

able cultural remains. Thus, the Early and Middle Woodland peoples were not responsible for these tools.

There only remains the Late Woodland to examine. Although there are some strong Late Woodland sites in the surrounding area, this site in particular was not heavily used at that time. Further, many of the flints under examination simply were not used during this time. Thus, Late Woodland peoples were not responsible for the tool forms under discussion.

### Exotic Lithic Material

To this point I have fairly well established that the tool forms and lithic material to be highlighted are, at the latest, Early Archaic in origin. Let us now examine the various lithic materials that make up this assemblage. I have already noted the occurrence of many exotic flints on this site, and many of these I cannot identify any further than stating their color and uniqueness. This in itself, by the way, is a common occurrence for Paleo-Indian assemblages.

Leading the way is mottled gray/brown Onondaga chert. This is identical to that in the Shoop assemblage, except the degree of weathering so evident on Shoop items is not evident here. Seventy-two of the 177 artifacts are of this material. All tool forms are represented except the limace form, backed side scrapers, and backed flake tools, but these are not prevalent in the assemblage.

Belleville chalcedony and Flintridge flints are both represented by 17 tools. The distinctive amber translucent Belleville is from west of the area in the Centre and Mifflin County areas. Currently, I know of only two fluted points made of this material, one basal section found less than one mile upriver, the other from Centre County. Having tried knapping this material, I know it is quite erratic in its fracturing, which may be a reason more projectiles were not made of it. Apparently, it served well for end- and side-scrapers and flake tools. This material has been noted at Shoop and one other Paleo-Indian site, the Arc Site in New York.

Flintridge flint, or material suspected as such, ranges from white flint to the translucent mottled grayish Flintridge chalcedony. The majority of this material appears in thin utilized flake tools, with endscrapers close behind.

Berks/Lehigh jasper is represented in 15 items. The bulk of these are flake tools. Two are entirely thermally altered to red while two others have reddened portions. This material is well known in Paleo-Indian assemblages, but not so much from the Susquehanna Valley this far north. It can be added here that the jasper does not belong to the Early Archaic Period. There was apparently little connection with southeast Pennsylvania during the Early Archaic as none of the Early Archaic material is of jasper or quartzite, and only a rare bifurcate is made of quartz, not only on this site but the surrounding area as well.

A fair grade of black flint is also represented in 15 pieces. At first glance it appears to be a local material. Still it

is distinctive, and I am hard pressed to find any other artifacts made of it at the site. It appears to be the same somewhat mottled black flint that the rare Frost Island points are made of locally, and it therefore may originate further north in New York State. There was a noted trend for the use of black flints or cherts in our fluted point survey of Lycoming County.

There are ten artifacts that are either green or gray/green or mottled black/green/brown in color. Lacking any other sources of these shades, I have labeled them all as Cocksackie flint from the Hudson Valley.

Seven of the artifacts are Cocksackie or Upper Mercer blue to blue/black flints from Ohio.

Incidence now drops to five or less of the following: Central New York gray flint (5); 3 each of clear chalcedony, speckled Onondaga and other gray- to gray-green flints; 2 of a reddish chert; and 1 each of pebble chalcedony, greenish-yellow, gray chert, gray-tan flint, bluish-gray flint, green striated flint, and a black pitted flint.

### The Tool Forms (Morphology)

Arguments have just been put forth concerning the occurrence of certain lithics in Paleo-Indian assemblages and the lack thereof in other cultures. A stronger argument will now be tendered concerning the forms these items take. The following is a brief discussion of these various forms, with reference to illustrations of some of the specimens.

#### Preforms

One or possibly two items are preforms. The first (Figure 1a) is a classic, as identical specimens are known from Shoop. This piece was being worked down from a blocky chunk of Onondaga but suffered an overshoot termination during one of the end-thinning sequences. It shows slight use in its present condition with tiny retouch flakes on three edges.

I am less sure of the second (Figure 1h). The overall shape and flaking pattern suggest Paleo-Indian flintwork. It has been end-thinned, from each end, on one face only. The flint is a black pitted flint.

#### Projectiles

Seven fluted points or parts thereof are currently known for the site, as is one large broken lanceolate mid-section that is probably of Paleo-Indian age. Figure 1c - g are of classic shape. The flint is listed with each illustration. Figure 1h is one of the smallest fluted points I have ever seen, but I have no doubt of its placement. Fluting has been attempted on each face, the side edges are heavily ground, and the point is thick from resharpening. Figure 1i, though stemmed, I believe to be a reworked fluted point. Whether the point was reworked by

Paleo-Indian or later people cannot be known. It is made from Onondaga chert, a flute terminates in a hinge fracture on the one face, and the chipping pattern is similar to that of PaleoIndian flintwork. Figure 1 j is the lanceolate mid-section. It is made of jasper and resembles a number of larger, lanceolate, minimally fluted points occurring in the Susquehanna Valley.

### Endscrapers

The endscraper series exhibits many forms or variations (Figure 1k - o, and Figure 2a -j). At least 65 of the tools studied were classed as endscrapers. Examples of many exotic materials are present. Once again, Onondaga chert predominates (at least 27 of the 65).

In form these endscrapers parallel Shoop specimens. Sizes range is from 1.9-4.1 cm (0.75-1.6 in), but the vast majority measure between 2.2-3.8 cm (0.9-1.5 in). Most are triangular (Figure 1k, l, n, o, and Figure 2e and g) and pointed at the proximal end, but some are round (Figure 2b and d). Most exhibit the flat surfaces of previous flake removal on the upper surface, indicating production by core-and-blade technique, common among Paleo-Indian groups. Only one (Figure 2c) falls within the true blade description category. Some are well worked on the entire upper surface (Figure 2e - g). At least one of the side edges is also worked on most specimens. One or two, as mentioned, are round and worked along the entire periphery (Figure 2d).

Some specimens are apparently broken, with the pointed end missing. Some pointed ends are found, but most are thin and are not the missing portions of the endscrapers. They are more likely from expanding flake tools to be discussed, or perhaps are the original flakes.

Graver spurs can be found at the outside bit corners (Figure 2e, f, and h), but some have gravers isolated on the edges by definite concavities (Figure 2d, e, and g). Both the presence of gravers and concavities are well-known PaleoIndian characteristics. Some specimens are made on expanding flakes that have the distal edge and one side finely worked, forming a sort of 'beak' or pointed tip (Figure 2i and j). Edge angle of the bit varies from very steep to shallow, depending somewhat I imagine on the original flake, spall or blade. A few bits are very smooth from use, and a few have crushed bits. A preponderance of endscrapers characterized most Paleo-Indian assemblages.

### Sidescrapers

Many sidescrapers of the expanding, pointed type occur (Figure 2a, l and m; Figure 3e), while some approach or are parallel-sided (Figure 3b). These too exhibit the flat planes on the upper surface. Edge angle varies, but to be included here there had to be a definite beveled edge. Sizes range from 1.95-2.1 cm (0.7-2.0 in). On some specimens both

edges are finely worked, but most have only one edge modified for use. The distal end is unfinished and/or appears broken.

At least four, one each of four different materials, are backed (Figure 3b and c) either with original flake scars or rind. Four others are curious and form a cluster. These (Figure 2o and Figure 3a) are unique for the curvature exhibited. One of these, in addition to a minimally worked side edge, has a graver isolated on the distal end. Gravers are much less in evidence on the sidescrapers but do occur (Figure 2m). Randomly shaped sidescrapers also occur, as do other shapes exactly like some from Shoop (Figure 2n). Forty-six tools were classed as sidescrapers.

### Flake Tools

Flake tools (Figure 3d, f - h) are very much in evidence. I have only included 36 here, but there are many more of which I am less sure. One notable trend is retouching the edges of thin expanding flakes. Otherwise edges can be found on randomly shaped flakes and chunks. Gravers occur on some of these (Figure 3h).

### Flake Gravers

Presently I have found four flake gravers from the site. These approach the coronet style known for Paleo-Indian assemblages (Figure 3i and j). A variety of flints are represented. These tools exhibit graver tips isolated by minute flakes removed from alternate edges of the flake. One (Figure 3k) is uncharacteristic because it appears to be an expanding, bifacially thinned flake. Gravers, as noted, also occur on endscrapers, sidescrapers, curved sidescrapers, and flake tools.

### "D" or Ear-Shaped Knives

Two, or possibly three, ovoid flake knives of the "D" or ear shape are present (Figure 3 l and m). One is a thin flake of Onondaga chert with a bifacially sharpened edge. The other is of black mottled flint and is unifacial. Like specimens occur at Shoop. One other large flake of black flint may be another of these. This one has a bifacially sharpened edge, which has been ground and smoothed. This may be from use or intentional as a backing, for the opposite edge has been sharpened as well.

### Limaces

Two limaces or limace-like implements have been recovered. One (Figure 3n) is narrow, bi-pointed, thick in cross section, and worked around the entire periphery. Both are unifacial. These are much larger than the limaces from the Vail or Debert Sites, but similar pieces of similar size are in the Shoop assemblage. Limace may not be the correct terminology.

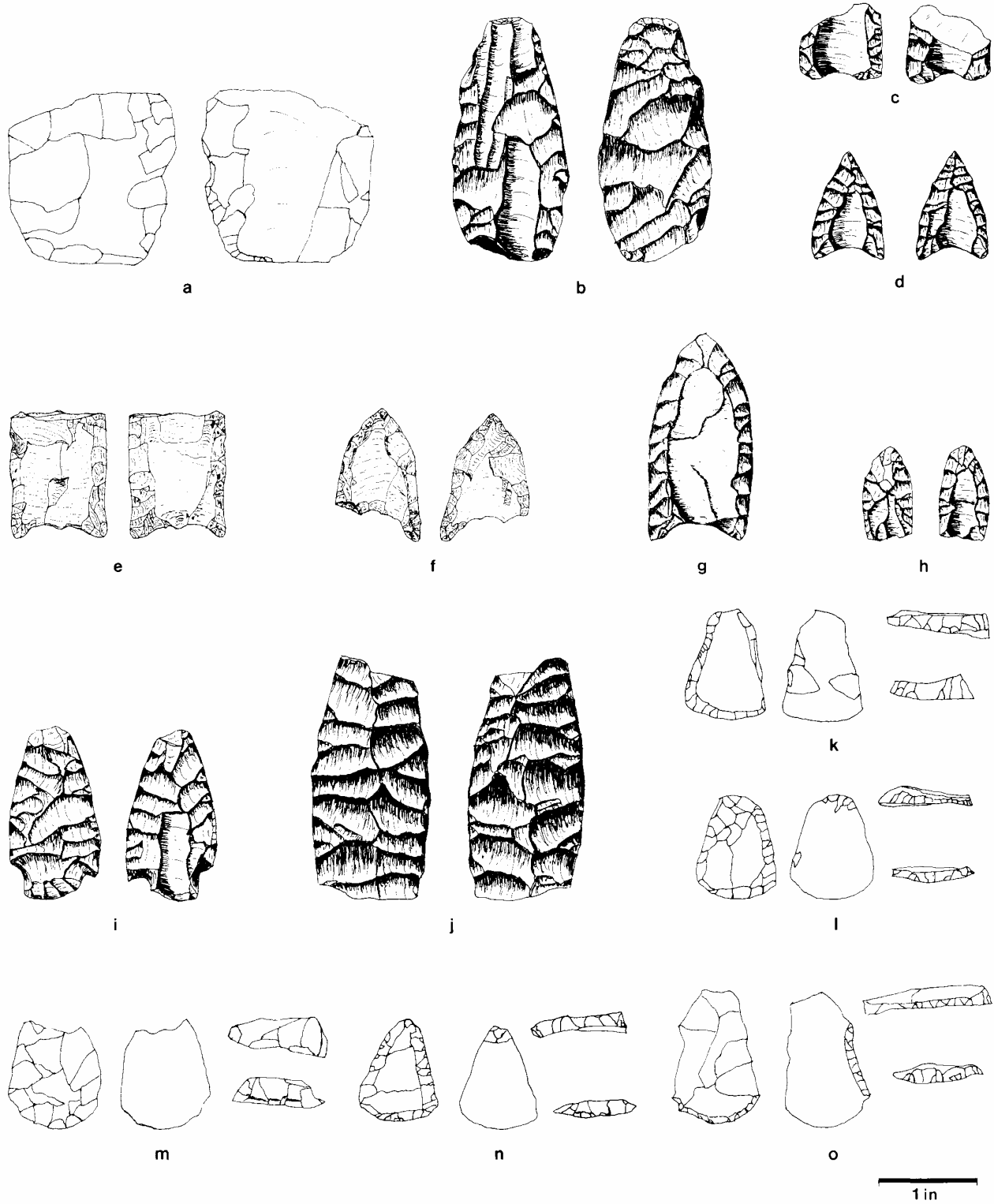


Figure 1, a. Onondaga, b. Black pitted flint c. Onondaga, d. Onondaga, e. Coshocton, f. Cocksackie, g. Black flint/chalcedony, h. Onondaga, i. Onondaga, j. Jasper, k. White Flintridge, l. Cocksackie, m. Belleville Chalcedony, n. Onondaga, o. Black flint.

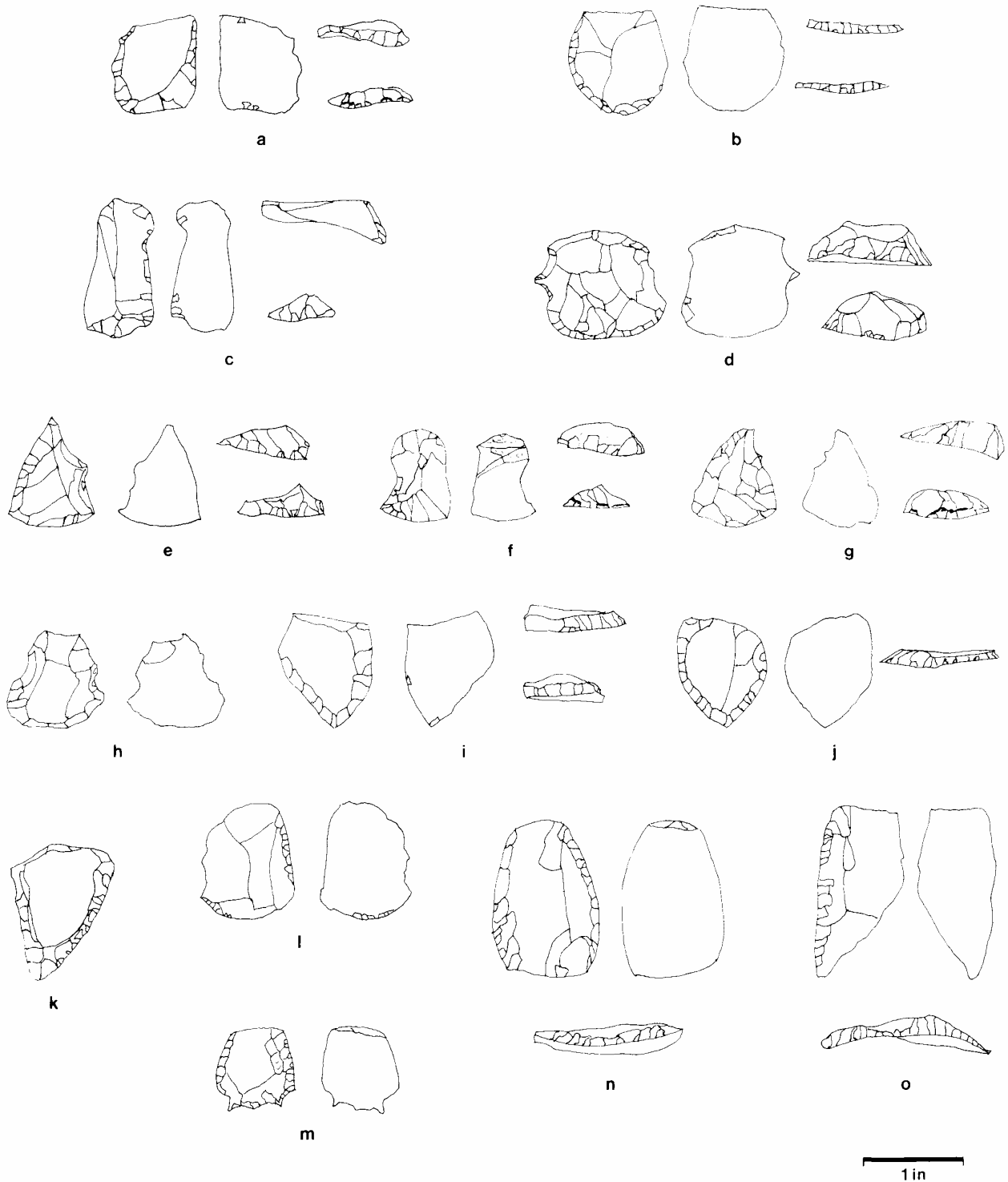


Figure 2. a. Belleville Chalcedony. b. Onondaga. c. Onondaga, d. Jasper, e. Onondaga?, f. Onondaga. g. Onondaga, h. Jasper, i. Onondaga, j. Coshocton?, k. Speckled Onondaga, l. Coshocton, m. Onondaga, n. Onondaga, o. Speckled Onondaga.

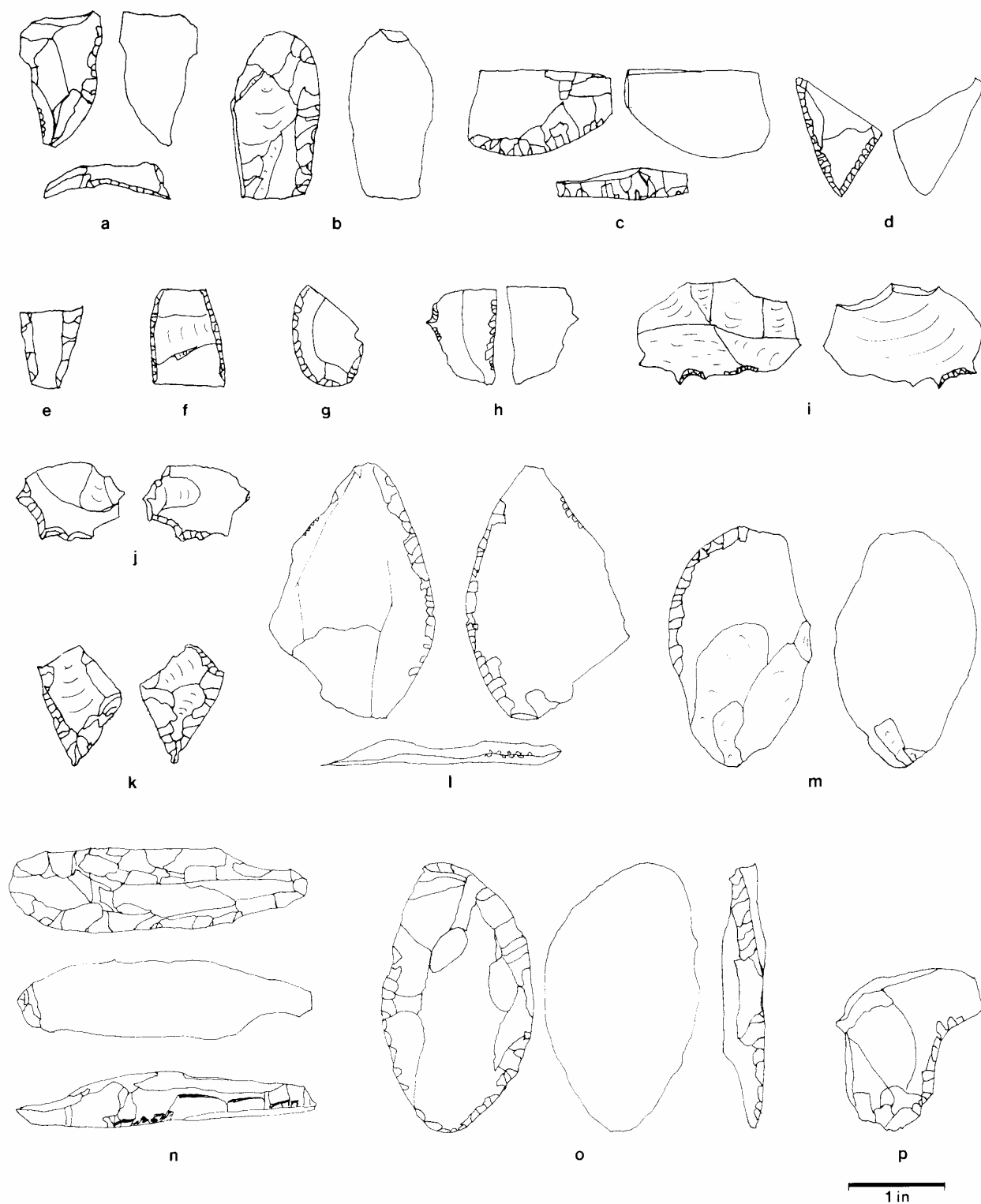


Figure 3. a. Coshocton, h. Flintridge. c. Jasper. d. Onondaga", e. Blue/Gray flint. f. Onondaga, g. Coshocton, h. Clear chalcedony, i. Black Flint. j. Greenish/yellow. k. Flintridge, l. Onondaga, m. Black flint, n. Cocksackie o. Black flint, p. Cocksackie.

## Spokeshave

A chunk of the gray-green possible Cocksackie flint was found (Figure 3p) with what has to be considered a spokeshave. An incurvate edge on one chunk has been finely retouched unifacially. One other large tool of gray flint exhibits an incurvate edge that has been bifacially sharpened.

## Remarks

The purpose here is to describe the Paleo-Indian artifacts from site 36LY 195 and the methods used to separate them from other cultural manifestations. When compared with local known assemblages, these items do not fit, except for a weak argument for possible Early Archaic connections. When compared with known Paleo-

Indian forms, both from other sites (particularly Shoop) and elsewhere in the Northeast, they do fit. The fact that fluted points and Paleo-Indian forms definitely occur on the site only strengthens the placement of all forms noted.

As usual, the analysis of this assemblage will raise more questions than it will answer. The abundance of Belleville chalcedony and scarcity of Houserville jasper are noteworthy. The wide range of exotic lithics is unique, even for PaleoIndian assemblages. Seldom will fluted points of Ohio or Hudson Valley materials be found in the Susquehanna Valley, although they are known. The similarities between of many of these items and Shoop items is interesting.

Just as at the Twin Fields and Plenge Sites, it is possible to isolate Paleo-Indian artifacts from a mixed site. A key to being able to do so though is knowledge of what the surrounding area yields.

Table 1. Lithics and Tool Types at the Warrior Spring Site

Lithics	Preforms	Projectiles	Endscrapers	Endscrapers with gravers	Sidescrapers	Curved sidescrapers	Sidescrapers with gravers	Backed sidescrapers	Flake tools	Backed flake tools	Ear knives	Flake gravers	Chunk tools	Limace	Spokeshave	Total
Onondaga	1	4	18	9	17	3	3		10		1	1	5			72
Belleville Chalcedony			6	2	8				1							17
Flintridge			6		1		1	2	5							15
Jasper			1	2				1	10	2			1			17
Black Flint				3	2	1		2	2		2	2		1		15
Cocksackie		1	4		3									1	1	10
Coshocton		1	2			2			2							7
Grey cen NY Onondaga			1	1					2						1	5
Clear chalcedony			1	1					1							3
Speckled Onondaga			1	1		1										3
Other greenish/grey flints			3													3
Reddish chert				1					1							2
Other grey chert or flint			1													1
Green striated flint								1								1
Green/yellow chert												1				1
Pebble chalcedony					1											1
Grey/tan flint				1												1
Bluish/gray flint					1											1
Black flint/chalcedony		1														1
Black pitted flint	1															1
	2	7	44	21	33	7	4	6	34	2	3	4	6	2	2	177



One additional comment: I have searched the Shoop Site, and in doing so, whenever espying a fair-sized flake or chunk of Onondaga chert one can be very confident that it will in some way be worked, or show that it was utilized. The same is true for site 36LY 195. When I see a fair-sized piece of exotic flint, I can be fairly confident that it will be one more Paleo-Indian tool to add to the assemblage. Just as the Shoop people seem to have made fullest use of their supply, the Paleo-Indian people who visited the Warrior Spring Site were doing the same thing.

### Acknowledgments

The author gratefully acknowledges the input, insights, expertise, and helpfulness of the following: Dr. Michael Gramly, Dr. Robert Funk, Dr. Robert Moeller, Stan Lantz, and Floyd Painter. It is very encouraging when amateurs can interact with such notable authorities. Also, many thanks to Charles Hayes for his encouragement and understanding in preparing this article for publication.

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# Minutes of the 72nd Annual Meeting New York State Archaeological Association for 1988

Sheraton-Airport Inn, Colonie (Albany) New York, 12205  
April 8, 9, 10, 1988

## Executive Committee Meeting

The meeting of the Executive Committee of the New York State Archaeological Association was held on Friday, April 8, 1988, at the Sheraton-Airport Inn in Colonie (Albany), New York. President John R. Lee called the meeting to order at 7:40 p.m. After a brief opening address, the Secretary was directed to call the roll. The following voting members, including NYSAA officers, chapter presidents and secretaries, or their alternates were present.

President: John R. Lee  
Vice-President: Richard McCracken  
Secretary: John H. McCashion  
Treasurer: Carolyn O. Weatherwax

### *Auringer-Seelye Chapter:*

President: Virginia Stiles (alternate)  
Secretary: Absent

### *William Beauchamp Chapter:*

President: Al LaFrance  
Secretary: Ty Tanner (alternate)

### *Chenango Chapter:*

President: Richard Bennett (alternate)  
Secretary: Monte Bennett (alternate)

### *Frederick M. Houghton Chapter:*

President: Eleazer Hunt  
Secretary: William Engelbrecht (alternate)

### *Incorporated Long Island Chapter:*

President: Walter Smith  
Secretary: David Elliston (alternate)

### *Mid-Hudson Chapter:*

### *Incorporated Orange County Chapter:*

President: Absent

Secretary: William F. Ehlers

### *Lewis Henry Morgan Chapter:*

President: Robert Gorall  
Secretary: Annette Nohe

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

President: Hans Schaper (alternate)  
Secretary: Geary Zern (alternate)

### *Metropolitan Chapter:*

President: Roger Moeller (alternate)  
Secretary: Absent

### *Mid-Hudson Chapter:*

President: Al Wanzer (alternate)  
Secretary: Rosalind Wanzer (alternate)

### *Triple-Cities Chapter:*

President: Richard Jackson  
Secretary: Dolores Elliott

### *Upper-Susquehanna Chapter, Incorporated:*

President: Helen Gutierrez  
Secretary: Ruth Wakeman

### *Van Epps-Hartley Chapter:*

President: Kingston Lamer  
Secretary: Mandalay Grems (alternate)

## Committee Chairpersons

1. Publications: John R. Lee
2. Bulletin Distribution: Roger Moeller
3. NYSAA/NYAC Liaison: Dolores Elliott
4. Public Archaeology: Dolores Elliott
5. Nominating: Richard Bennett
6. Legislative: Paul R. Huey
7. Awards and Fellowships: Peter P. Pratt
8. ESAF Representative: Roberta Wingerson
9. Editor: Charles F. Hayes III
10. Finance Committee: Open
11. Constitution Committee: Open
12. Chapters and Membership Committee: Open

Roll call having been taken and the required quorum (11) being present, the next order of business called for the reading of the Executive Committee minutes from the 1987 Annual Meeting at Syracuse, New York. Since these had been previously printed and mailed to the Executive Committee between August 31 and September 5, 1987, Richard Jackson made the motion to suspend the reading of the minutes and accept them as printed. Dolores Elliott seconded the motion which went to the floor and was accepted unanimously. The Executive Committee then proceeded to the next order of business.

## Report of the Officers

### President

President Lee began his report by thanking all those who had elected him. This evening's report would be divided into four sections: General, Archaeological, Inter-chapter Affairs, External Affairs, and Special Reports.

Generally speaking, Father Lee commented on the excellent relationship he had seen between the professional and avocational archaeologists. It was one of the glories of NYSAA. He had attended two of the three N YAC meetings as a representative of NYSAA.

He pointed out the necessity of a NYSAA newsletter which would reach all members and then stressed inter-chapter publications highlighting the Beauchamp, Long Island, Orange County and the new Triple Cities newsletters. He suggested that an award be given for the best newsletter. Briefly commenting on the Festschrift for Lou Brennan, he hoped it would be resolved at this meeting. He then thanked Richard McCracken for getting a start as liaison to archaeological associations of neighboring states. He expressed a great desire that with the help of Lee Hunt, the Erie, or southwestern group, might be encouraged to form a chapter of NYSAA.

Young people should be encouraged to join, and as an example, he had brought five students with him. Perhaps, he suggested, awards should be given for the best student paper at a NYSAA meeting.

He suggested joint meetings with other organizations.

Concerning special projects, he wholly supported videotaping papers given at NYSAA meetings as well as actual excavations such as Brian Nagel had done at Highland Park in Rochester. A paper not published may be lost forever.

He stated that the Constitution was outmoded and badly in need of revision. The last updating was in 1974. Continuing along those lines it might be necessary to ponder the direction in which the NYSAA was going. Was it really serving the needs of the state?

Concerning the Native Americans, he stated that it was of prime importance to get them involved, and he was pleased at what had been accomplished.

He suggested that the main theme for the diamond jubilee 75th Annual Meeting be a total updating or overview

of New York State archaeology and that a chairperson be appointed as soon as possible.

In conclusion, he thanked the membership of the NYSAA for their cooperation and was confident that the next administration would do greater things, and he gave it his full support.

### Vice-President

Mr. President: The past year was uneventful for the Vice-President. Asked by you and the Executive Committee, a call was made at the last Annual Banquet for all Officers of the Association who receive or expend Association funds to submit a five-year budget plan to me within 90 days of that date. Following tabulation, a master plan would be submitted to all chapters for discussion and recommendations. This was to be followed by an Executive Committee meeting to assess future budgetary requirements and to prepare the necessary amendment determination regarding any necessary dues increase would be made and presented to the membership. The plan was discussed with each principal in Syracuse following the Saturday morning business meeting.

There was no response to the call for a five-year plan. Dr. Roger Moeller furnished an explanation of costs involved in maintaining our membership list and in providing mailing services, an expense which I fully support as a good business practice with a high return on our investment. Additionally Charles F. Haves III provided me with cost figures for each issue of *The Bulletin* as they occurred. Although, reiterated to several affected members through personal contact during this past summer, the call went unheeded. Based on the near-total lack of response to the budget call, the unexpected arrival of a ballot last fall calling for a dues increase, and the failure of the Executive Committee to meet to discuss the issue, I concluded that there was a general lack of interest and commitment in establishing a base for sound fiscal management within the Association and that the matter had been taken out of my hands. I, therefore, took no further action. Realizing that we do not have a base from which to determine what our present capital requirements are, or what they will be both in the near and in the more distant future, I abstained from voting on the dues issue.

### Secretary

As is our custom, we welcome new chapter secretaries. This year please welcome Lucy Mae Sanders of the Chenango Chapter. We sincerely thank Gail Merian for her magnificent work in that position.

Fiscal year 1987 was more hectic than 1986. Finance, direction, co-ordination, and preservation were paramount. Enclosed in the chapter packets before you are: the agenda

for this evening's meeting, a copy of the NYSAA Constitution for reference, officers' reports, and the annual reports of the Chapters.

Since this is an election year, the Informational Handbooks will be distributed with the Executive Committee minutes a month or so after this meeting. Enclosed will be four copies of each which will be distributed to the President, Vice-President, Secretary, and Treasurer as soon as possible.

With me are extra membership cards and forms should you need these. Incoming correspondence from the at-large members began in earnest during May. The first substantial mailing commenced August 31, 1987, and consisted of four copies of the previous executive committee minutes, 3 newspaper collages, 1 newsletter, 1 Ontario meeting notice, the IRS statement, 1 postal rate schedule, 1 flyer for Gilbert Hagerty's book and the "Notice of Intent" to raise the dues.

The second large mailing began on November 3, 1987, and terminated on November 18, 1987. It consisted of the newsletter, yellow 1988 membership cards in bulk, and the "First Call" for papers. This newsletter was particularly important as it contained the appeal to defeat the Native American Cultural Act (S. 187) as well as the results of the "Notice of Intent" or "dues raise" poll.

The third large mailing began on February 11, 1988, and ended on February 13, 1988. Included were the newsletter, ballots, tax exempt certificate, "Second Call" for papers, registration forms, and five pages of collaged newspaper articles. This newsletter thanked the Mid-

Hudson chapter for their excellent Annual Dinner attended by Fran and myself. The last mailing was completed on February 22, 1988, and contained an "immediate action" request to prevent construction on and destruction of the Manassas Battlefield. Over fifty letters went out from this office alone, and at the date of the typing of this report, both the Metropolitan and Lewis Henry Morgan chapters responded superbly. Also included in the newsletter was the publicity on the very successful Van Epps-Hartley chapter meeting which Fran and I also attended.

Total membership for 1987 was 679 memberships which included life members, paid members, and exchanges. In comparison, 1986 memberships totaled 632 and 1985 totaled 646. Costs for this office were reduced from \$450.00 to \$300.00 as requested. With the scrutinization of *The Bulletin* No. 95 in its new format another busy year closed.

### Treasurer

Treasurer, Carolyn Weatherwax, apologized for not being able to project costs due to the present financial instability. Two cash donations helped defray expenses for *Bulletin* No. 95. Negative flat storage would be discontinued. She explained various points of her report included in these minutes. The Secretary called for a motion which was made by Kingston Lamer to accept the Treasurer's report. Richard Jackson seconded the motion which was unanimously approved.

### Report of the Treasurer, April 6, 1988

#### Adirondack Trust Co.

4/03/87

MMDA #7922385	\$10,386.77
NOW Acct. #2945406	1,754.52

4/06/88

MMDA Int. 4/01/87 - 3/31/88		
@5.15 - 5.50%	\$536.49	\$9,923.26
\$1,000.00 transfer (8/11/87)		
NOW Acct. Int. 3/31/87 - 3/31/88	\$106.75	2,252.64
TOTAL ASSETS		\$12,175.90

#### Cash Receipts 1987 - 1988

Dues	\$ 5,494.50
Publication Sales	552.61
Donations	500.00
Int. Now Acct. #2745406	106.75
TOTAL	\$6,653.86

#### Disbursements 1987 - 1988

1986 ESAF dues (679 memberships)	138.00
Bulletin #94 (Postage - Labels 254.95)	2,866.72
Bulletin #95 (Postage - Labels 243.52)	3,630.02
Storage Negative Flats	171.00
Secretarial Expenses	300.00
Refund Life Membership (Chenango)	50.00
TOTAL	\$7,155.74

TOTAL RECEIPTS	\$6,653.86
Bal. Ck. Acct. (4/6/87)	1,754.52
Transfer of Funds (8/11/87)	1,000.00
TOTAL	9,408.38
Disbursements ('87 - '88)	7,155.74
Balance NOW Acct. (4/06/88)	\$ 2,252.64

## Committee Reports

### Publications

John R. Lee began by stating that much had been accomplished since last year and deferred to Charles F. Hayes III to explain the particulars.

### NYSAA Editor's Report

Charles F. Hayes III stated that during 1987 two issues (Nos. 94 and 95) of *The Bulletin* were published with a combined total of 120 pages and 13 papers on New York archaeology. There was a major change in format as approved by the 1987 NYSAA Executive Committee. This format was initiated with No. 95, the issue dedicated to Charles Wray. The accompanying tables give an indication of the cost of *The Bulletin* over the past 10 issues.

It was decided to change printers from Braun-Brumfield in Michigan to Monroe Reprographics in Rochester, New York. The reasons for this change involved savings in freight charges, postage and the fact that Braun-Brumfield raised their prices considerably as of January, 1988. The Editor sent a letter to Braun-Brumfield expressing the NYSAA's appreciation for past quality work and service.

Assistant Editor, Brian Nagel, has continued to be of great value in preparing the manuscripts. Patricia Miller, who devised the new format, has been appointed Graphic Artist. The Editor is very grateful to these individuals for their assistance in upgrading *The Bulletin*.

*Bulletin* No. 96 will consist of about 40 pages which is normal. Mr. Hayes reported that he is getting low on papers so if you want a paper published, now is the time to submit it. For the permanent record the costs of the *Bulletins* were as follows:

<i>Bulletins</i> Costs	No. of Pages
#85	\$1395.00 32
#86	1622.00 36
#87	2336.00 60
#88	1818.00 32
#89	2927.00 64
#90	2770.00 60
#91	3070.00 68
#92	2500.00 48
#93	3100.00 50
#94	2611.00 49
#95	3386.00 71*
#96	2500.00 27**

\* Includes \$500.00 combined special contribution from the Lewis Henry Morgan Chapter and the RMSC's Research Division.

\*\* Estimated Cost

Mr. Hayes brought up the point of charging authors who submit articles for publication to *The Bulletin*. Several felt that it would be a detriment to some of the avocational archaeologists, some students, and might hinder recruiting. The Secretary asked the membership if they would acknowledge the good work done by Editor Hayes, Brian Nagel and Patricia Miller, and they responded with a hearty round of applause.

### *Bulletin* Distribution Report

Roger Moeller began his report by stating the several factors necessary to mail *The Bulletin*.

1. John McCashion sends me photocopies of the actual membership reports sent to him by the Chapter secretaries. This has been supplemented by institutional renewals from Suzanne Mooney at the RMSC and the occasional forwarding from the Treasurer for people who have paid for back issues and those not yet published.

2. All of the member names, addresses, chapter affiliation, and year of membership are maintained in a computer database file. This file can be sorted by chapter, by year of membership, zip code or any combination thereof and printed on paper or sticky labels.

3. Charles Hayes estimates how many *Bulletins* I need for current fulfillment and has them shipped directly from the printer as soon as they come off the press.

4. Since he provides about one month lead time in notifying me of their arrival, the envelopes and enclosures are ready before the books arrive. The address labels are printed the day the books arrive. The books are bulk mailed within a few days of arrival from the printer.

5. Costs: The most recent *Bulletin* No. 95: 681 copies were bulk mailed at a total cost of \$172.96 or \$.25 each. Additional costs were 19 copies mailed to foreign addresses at \$.96 each. Other costs were \$.06 per label. The envelopes had previously been purchased in bulk to save money.

### Problems

At the request of Charles Hayes, the Wayne County Historical Society was sent computer labels of NYSAA members in New York supplemented by names from Archaeological Services files for a total of 1,000 names. Within three weeks they complained that 130 of their letters had been returned as undeliverable by the Post Office. I investigated to determine how many were current NYSAA state members and the source of the remaining names. More than 30 of the names were current (1987) NYSAA state society members including three life members and attendees at the past two annual meetings.

Although an estimated 10% of the American population moves each year, the Postal Service will not forward your mail unless you give them your new address.

Since we mail bulk to save money and the Postal Service does not forward bulk mail unless you are willing to pay for it, they destroy what we send if it is not delivered and if we do not pay to have it returned. Charles Haves ordered an Address Correction Requested and Return Postage Guaranteed imprint for *the Bulletin* No. 95 mailing. To date 25 *Bulletins* (nearly 4%) have been returned (at a cost ranging between \$1.08 and \$2.95 each) Of these, 12 have no forwarding address. To remail these *Bulletins* for which we have a new address, the cost is \$.75 each (before the expected postal rate hike). No remailing has been done.

Since I have also included Address Correction Requested on the ESAF, ASC and MAAC renewals and my own booklist mailings starting in February, I have received 120 corrections (about 710 ranging in cost from \$.22 to \$.33 each. I have fed all of these corrections through the NYSAA file. Had I not, I suspect the return rate would also be 7%.

The source of the problem is the near absence of address changes from the original source (chapter secretaries), the total absence directly from members, and the submission of illegible or incorrect addresses. The Postal Service is only obliged to deliver to your legal mailing address. If you do not have a mail box at your home, you cannot receive mail addressed to your home. If you have a box at the post office, that is your legal mailing address. However, each unit interprets this differently and makes exceptions. The second largest problem is that members complain that they have not received *The Bulletin*. The most common reason is that they are not members because the chapter secretary failed to submit their names by the September 1st cut-off date agreed upon at the last annual meeting printed in the minutes, and published in *The Bulletin*. An extension was agreed to because Bulletin No. 94 had not been mailed. A copy of the current membership list will show a lot of individuals as 1988 members who thought they had been paying for 1987.

#### Solutions

Each member should complete a separate membership form every year that includes a notice of the September 1 deadline and that it is his/her responsibility to keep a current address in the computer file. The chapter secretaries should still submit the summary sheets. A penalty should be assessed for remailing *Bulletins* returned by the Postal Service as undeliverable. A single Bulletin could cost up to \$3.95 (\$2.95 + .25 + .75) to bulk mail, to pay for a return, and to remail.

This is unsatisfactory since membership is only \$6.50 and a postal rate increase is due very soon. The September 1 cutoff is necessary to preclude the very expensive mailing of individual books. By having at least 50 lbs of *Bulletins* to mail at one time, we pay only \$.25 each. Otherwise, it is \$.69 each. So, there is economy of scale. I have a lot less work to do if I do them all at once rather than run one label and stuff one book every day. Vicky Jayne brought up the yearly problem of the chapters not receiving

their three copies. Roger Moeller replied that his had been complied with and that the copies were sent to the chapter secretaries, not the chapter librarians.

#### Finance Committee

Roger Moeller agreed to chair this committee in the future.

#### Legislative Report

Paul Huey gave his finely done and most appreciated Legislative Report which is contained in this report. He emphasized Senate Bill 858 and the necessity to act on it immediately. Mr. McCracken proposed that a Resolution be prepared and presented at the General Business Meeting tomorrow so that we can vote as a majority of 679 in favor of passage of the bill. Also, the outlook is very good for funding in Congress.

#### Nominating Committee

Richard Bennett reported that the ballots had been received and the results would be announced after the General Business Meeting on Saturday.

#### Public Archaeology

Dolores Elliot stated that it was time for the Executive Committee to reassess the direction of "public" archaeology. The traveling exhibition was not ruled out, but funding was necessary. Father Lee stated that he had the experience of having one which circulates around the Rochester school system. Father Lee said that he would discuss the matter with her afterwards.

#### NYSAA/NYAC Representative

Dolores deferred to Father Lee who attended the NYAC Meeting for further questions. There were none.

#### Awards Committee

Dr. Peter Pratt announced that the awards committee had met at 7:00 p.m. Awards from Houghton, Mid-Hudson, Morgan, Orange County, Triple-Cities, and Van Epps-Hartley chapters had been discussed, and the results would be forthcoming at the banquet tomorrow.

#### ESAF Representative

Bert Wingerson reported that she had attended the joint ESAF meeting which was represented, more or less, by 28. She

stated that Roger Moeller would be taking over her position. The matter of the ESAF publication going to the archives was resolved by Roger Moeller.

**Report on Legislation:  
New York State Archaeological Association**

April 8, 1988  
Paul R. Huey, Van Epps-Hartley Chapter

**Federal**

The shipwreck preservation bill (S.858) narrowly failed to pass in the House of Representatives on March 29, 1988. The House will vote on S.858 again during the week of April 11. This is a bipartisan bill that will protect underwater shipwrecks, but it is essential that the bill be passed the next time it is voted upon. Please contact your Representative to show your support, whether he or she voted for or against it on March 29. Those who voted in favor should be thanked. Loretta Neumann, the lobbyist for archaeology in Washington, explains that while many sport divers are also in favor of the bill, treasure hunters are opposed to it. Well-funded commercial salvors have spread misinformation and have used scare tactics to increase the opposition. It is very easy to call your Representative, ask for his or her support for bill S.858 *unamended*, and give your name and place of residence. Basically, this bill would define shipwrecks as archaeological sites, remove them from the jurisdiction of the federal admiralty courts which care nothing about archaeology, and place the sites under control of the states whose waters they lie.

On January 15, 1988, in response to the needs which prompted the bill introduced by Senator John Melcher last year, the Council of the American Association of Museums adopted a Policy of Repatriation of Native American Ceremonial Objects and Human Remains. Ceremonial objects are defined as those objects which are necessary to assure the continuation of the religious practices of a Native American group with both legal and cultural standing. Museums which own illegally acquired ceremonial objects should repatriate those objects if requested by such Native Americans. Requests for return of objects from museums which acquired them legally should be carefully considered as to the museum's public mission and purpose, and as to the value and benefit to the Native Americans before a decision is made. Generally, a museum should be satisfied that reasons for repatriation are more compelling than reasons for retaining such objects. Museums which possess illegally acquired human remains should repatriate such remains upon the request of a legitimate Native American group. For other human remains, any request for repatriation should be evaluated on the basis of religious or cultural values, scientific values, and whether the remains are directly antecedent to specific Native American individuals, families or groups. For

further specific details, the full Policy statement must be consulted.

Federal historic preservation funding this year so far has an encouraging outlook. A substantial increase in funds for historic preservation has been generally supported by Congress because of broad-based public support.

**State/Local**

The pending New York State budget has 10 million dollars for historic preservation grants for municipally-owned or not-for-profit properties. This money is available for archaeological projects, and the New York State Office of Parks, Recreation and Historic Preservation is eager to receive archaeological project proposals. To qualify, a site must be listed on the National Register of Historic Places. For advice and assistance, call Michael Lynch at (518) 474-7750 or -3176.

An important bill developed by the New York State Archives is the New York Documentary Heritage Bill, A.9793 and S.7503, now pending before the Legislature. This bill would provide aid funding for Reference and Research Libraries Resource Systems to assist various records repositories across the State. It would also provide other aid and competitive grants for historic records programs at libraries, historical societies, museums, and other repositories. It would assist SUNY and CUNY colleges and universities in developing programs for their own archival records. More information is available from Larry Hackman, State Archivist, at (518) 474-1195. Letters of support to individual legislators and the legislative leadership are needed. William Hoyt from Buffalo is the Assembly leading sponsor, and James Donovan is the leading sponsor in the Senate.

On April 4, the City of Albany Common Council enacted a new historic resources ordinance. A key clause in the new ordinance deals with procedures for preserving archaeological resources within the area of the seventeenth century town, according to the Albany Times Union. Developer', in this area will be required to hire professional archaeological consultants to undertake documentary research and sensitivity studies of proposed development sites and to evaluate the significance of potential archaeological resources. Rescue excavation will be required, if necessary, to record and retrieve significant resources prior to new construction.

**Old Business**

At 9:20 p.m., "old business" commenced with a motion made by the secretary to raise the dues of NYSAA. The new dues structure would consist of the following: Individual. \$9.00, an increase of \$2.50; Sustaining, no change; Husband & Wife, \$10.50, an increase of \$3.00; Life, \$150.00, an increase of \$50.00, \$75.00 remitted to the chapters; Institutional. \$15.00, an increase of \$5.00; Student combined with Subscrib-

ing Junior (New Category) and Retirees, \$8.00. The reason for the dues increase, basically, would be to remain competitive compared to the other associations, yet remain reasonable. Dr. Larner seconded the motion which then came under discussion. Bert Wingerson began the discussion by stating that the motion was reasonable and that one Bulletin alone was worth that price. Peter Pratt called the question which required a vote with no discussion. Annette Noe seconded, but Father Lee interjected that discussion was being cut off and Peter withdrew his call to question. Discussion continued. Roger Moeller stated that the raise was too modest. Seven hundred *Bulletins* would be mailed out at a cost of \$9.00 apiece, some higher. Cost would be \$6,300.00. Last year's cost was \$7,155.00. This proposed dues raise would barely cover last year's expense. Roger stated that there was a 25% increase in bulk-rate mailing due to the Postal Service increase. Sent by the individual rate due to individuals, joining late, the rate could increase 400% Dolores Elliott again brought up the point of financial control in the presence of a person to head the Finance Committee. Treasurer Weatherwax pointed out that we had \$9,926.26 in the account. \$2,500 was withdrawn two years ago, and \$1,000 was withdrawn this year. The money had been put away for a special publication, but survival dictated the withdrawals. Discussion continued. Roger Moeller pointed out that the only way NYSAA reaches its members is by *The Bulletin* and the Annual Meeting. With Lou Brennan's Festschrift, the proposed newsletter, and a traveling exhibit being proposed, he suggested that this raise would just about cover the subsistence level in effect now. The combination category of student combined with subscribing junior and retirees came under discussion. Richard McCracken and Dr. Hosbach emphatically endorsed the raise. Peter Pratt again called the question. Father Lee asked for a voice vote to raise the dues according to the Secretary's motion. The motion was carried. There were three abstentions. Richard Bennett requested a rereading of the dues increase by category. The Secretary complied. The Secretary reminded those present that a confirmation was necessary on the new combination category. After discussion, Roger Moeller made a motion to drop the combination category. Peter Pratt seconded the motion. It passed. The Secretary was again asked to clarify the new categories. He did with the exception of the Student category, which was raised to \$6.00, and the Junior category which remained at \$3.00. Roger Moeller made the motion which was seconded by Richard Jackson and was passed on the floor. The dues raise and categories were: Individual. \$9.00; Sustaining, \$25.00; Husband & Wife. \$10.50; Life, \$150.00 (\$75.00 remitted to chapter); Institution. \$15.00; Student, \$6.00; Junior, \$3.00.

At 10:00 p.m. the second subject in the order of "old business" came up for discussion. Father Lee again brought up the necessity of a newsletter which should be created to reach all members. Richard McCracken began in historical reference to Gordon De Angelo's *Backfill*, the newsletter created to circulate between the President and officers of

NYSAA. Firmly believing that the Chapters are the life blood of the organization, Mr. McCracken would resurrect the Backfill which would be a semi-informal newsletter to the officers and the chapters and the chapters would Xerox them. These would at least be a start on establishing a newsletter destined to reach all members.

The third subject under "old business" concerned the NYSAA library update. In the absence of Geary Zern who was ill, Hans Schaper reported that the cataloging was in progress.

The fourth subject under "old business" was the appointment of a chairperson for the 75th diamond jubilee to be held in Rochester in 1991. Since this was the election year it was proposed to allow the new President to appoint the chair.

The last subject under "old business" was the reading of a letter from Herb Kraft by Father Lee in regards to the Lou Brennan Festschrift. Herb reported that he had been making progress on the Louis A. Brennan Memorial volume. He stated that he now had time to commit to the project which should be in the hands of NYSAA at the 1989 meeting to be held in Norwich. Valerie De Carlo and the people at Wave Hill have suggested a joint sponsorship with the NYSAA for which they are prepared to raise money (one-half or more depending on the estimated cost of publication). It would be up to our membership to decide and if so, how much we could afford. This figure would be sent to Herb Kraft who would in turn report it to Valerie.

### New Business

At 10:20 p.m. "new business" began with Father Lee reading a letter received by S.A.A. addressed to all state, local, and provincial archaeological societies inviting them to join. Richard McCracken stated that we were represented in the east by ESAF. There was no point in joining as the benefits to us would be minimal. NYSAA, therefore, respectfully declined the invitation.

At 10:30 p.m. Father Lee suggested that we briefly adjourn to partake of the wine and cheese. The meeting resumed approximately 20 minutes later with Roger Moeller commenting on centralized renewal mailing. The membership file currently has more than 300 at-large members (of which only 112 came to the Secretary). This is by far the largest of the "Chapters," but the one that receives the least for their money. The majority of these joined because of an ad in *Booklet of Archaeological Publications*. These people are locked into their 1987 membership with no hope of paying for 1988 because they are not being sent membership notices for renewal. To make matters worse, they are also being denied any notification of the plans for announcements of, or even the fact of the annual meeting. I am sure that those in Oregon will not feel like attending, but those that live in New York may.

I have repeatedly pressed for a centralized mailing to all



members to ensure that they know of the plans of the organization. Not every chapter member makes it to every meeting. At-large members have no other source of information except for what appears in *The Bulletin*. Why deny them? Why not take their dues money?

The major difficulty underlying this issue is that the officers and representatives fear that the NYSAA may be undercutting the power of the Chapters. My answer is that the Chapters are undercutting the NYSAA by not sending in dues prior to the deadline, by not keeping the NYSAA informed of address changes, and by not bringing more people to the annual meeting.

Solutions: The deadline for dues collection directly by the chapters should be modified. Any person previously a member of the NYSAA whose dues have not been received by the NYSAA by July 1 should be sent a dues reminder directly. Chapters can continue to send in dues for new members.

All members of the NYSAA should be sent an announcement of the annual meeting to include a call for papers, hotel location, registration form, etc. This may take two mailings, but one can coincide with the dues reminder. The chapters have six months to collect the NYSAA dues. After that, the NYSAA must step in if it is to survive. It is no longer possible to fund a *Bulletin* on our reserves. We need the capital now. Don Rumrill brought up an excellent point of using *The Bulletin* for renewals. Roger Moeller asked the Secretary how many renewals or requests came directly from the information in *The Bulletin*. The answer was two inquiries only. One hundred and twelve came directly to me from Roger's advertisements. Since we could not resolve these particular problems, it was suggested by Richard McCracken, that the principals meet in his room and straighten out the logistics.

The next item under "new business" was the disposition of Senate bill S-187, the Native American Cultural Preservation Act. The Secretary stated that he had written several letters to appropriate congressmen and wondered if anyone else had in response to the item in our newsletter. There was no reply forthcoming. Father Lee replied that it did not pass so we were satisfied that our minor contribution was helpful.

Next on the agenda was the hosting of the 73rd NYSAA Annual Meeting. Speaking for Richard Bennett, Richard McCracken announced that the Chenango Chapter of NYSAA would be proud to host the 1989 meeting in Norwich, New York. This was followed by a round of applause.

Next, Richard McCracken brought into being Resolution 88-1, whereas, the Van Epps-Hartley Chapter is hosting this, the 72nd Annual Meeting of the New York State Archaeological Association, and, whereas, the accommodations, facilities, program and speaker of this, the Sheraton-Airport Inn of Albany, New York, are of a sterling quality and nature, and whereas, Donald Rumrill, Fred

Stevens, Mandalay Grems, Dr. Kingston Larner, and Carolyn Weatherwax from the Auringer-Seelye Chapter have worked long and diligent hours to provide our membership with these amenities and programs, be it therefore, resolved, that the Association express its most profound appreciation to the Van Epps-Hartley Chapter, and to those names above. This Resolution was initiated by Richard McCracken, seconded by Annette Nohe and there was a unanimous round of applause.

Richard McCracken initiated Resolution 88-2, whereas, *The Bulletin* Editor, Charles F. Hayes III, members of his Editorial Staff, and members of the Staff of the Rochester Museum and Science Center have significantly enhanced the format of *The Bulletin*, giving freely of many hours of their time and talents, and whereas, they have done so through the innovative use of the latest in computerized Desktop Publishing techniques, thereby allowing such enhancement while minimizing rapidly escalating publishing costs, be it therefore, resolved, that the New York State Archaeological Association extend it salutations and expresses its deepest appreciation for the efforts of Charles F. Hayes III, Patricia Miller, Brian Nagel, Suzanne Mooney, Jim Anderson, and Gian Carlo Cervone, and, be it further resolved, that the Association also express its gratitude to the Rochester Museum and Science Center for providing the equipment, facilities, manpower and supplemental funding which have made this project an unqualified success. This resolution was initiated by Richard McCracken, seconded by Ruth Wakeman and there was another round of applause.

Again, under "new business" President Robert Gorall of the Lewis Henry Morgan Chapter urged that we support his efforts to persuade the U.S. Postal Service to issue a postage stamp to commemorate the 200th Anniversary of the 1794 Canandaigua Treaty in 1994. The Secretary stated that we had vigorously supported his efforts and that the flyers had been sent to all the chapter secretaries last year. We would continue to support this fine effort. Richard McCracken suggested that it be brought up in the form of a resolution so that the entire NYSAA be behind it.

Vicky Jayne brought up the matter of instituting an award for the best newsletter. Father Lee responded that the idea was noble and would take it up with the publications committee.

The final issue under "new business" was the proposed destruction of the Manassas Battlefield by creating a 1.2 million square foot Regional Shopping Center on it. The Secretary reported that he had written some forty letters and made many telephone calls to prevent this outrage. It is the greatest disaster to strike a nationally-owned historic site. The situation will continue to be monitored until a resolution is submitted in Congress.

With "new business" concluded, Dr. Roger Moeller made the motion to adjourn which was seconded by Muriel Gorall and the 72nd Executive Committee Meeting passed into history at 11:20 p.m.

## General Business Meeting

The General Business Meeting of the New York State Archaeological Association was called to order by President John R. Lee at 9:00 a.m., April 9, 1988. Father Lee introduced the President of the Van Epps-Hartley Chapter, Dr. Kingston Lamer, who gave a brief welcoming address and thanked all those who had helped on the committee. President Lee then asked the Secretary if a quorum existed. The Secretary replied, yes. The Secretary was then asked to read the minutes of the previous meeting at Syracuse. Richard Jackson made the motion to waive the reading of the minutes and accept them as printed. Dolores Elliott seconded the motion, which was accepted by the membership.

The President, Vice-President and Secretary gave a brief summary of their reports given at the Executive Committee meeting and Treasurer Weatherwax gave the full Treasurer's report. Richard Jackson made the motion to accept the Treasurer's report which was seconded by Fran McCashion which in turn was passed by the membership.

Committee reports were read and Richard Bennett, Chairman of the Nominating Committee stated that he had received 88 ballots. The results were as follows: For President, Richard McCracken, 85; Roger Moeller, 1; Blank, 2. For Vice-President, William F. Ehlers, 85; Blank, 3. For Secretary, John H. McCashion, 85; Blank, 3. For Treasurer, Carolyn Weatherwax, 85; Blank, 3. For ESAF Representative, Roger Moeller, 85; Blank 3. Father Lee thanked the Chairman of the Nominating Committee.

Under "old business" the Secretary brought the motion to the membership to raise the dues. The new dues schedule would be as follows: Individual, \$9.00; Sustaining, \$25.00; Husband and Wife, \$10.50; Institutional, \$15.00; Life, \$150.00 (\$75.00 remitted to the chapters); Student, \$6.00; Junior, \$3.00. Richard Jackson seconded the motion. There was little discussion and the motion was passed by the membership.

Concerning the establishment of a newsletter, Richard McCracken stated that he would resurrect the *Backfill* and hope that this would be a start to a newsletter that would reach the entire membership.

In regards to the NYSAA library, Geary Zern stated that cataloging was in progress. In regard to Lou Brennan's Festschrift, that was in progress, too.

Richard Bennett announced that the 1989, 73rd NYSAA Annual Meeting would take place in Norwich and that the Chenango Chapter would be the hosts.

Concerning the necessity of a chairperson for the 75th diamond jubilee President-elect McCracken stated that he would appoint a chairperson after he assumed the office. Thus concluded "old business."

Under "new business" Roger Moeller discussed centralized renewal mailing. Richard McCracken stated that this was

a matter to be settled by the Executive Committee and this would be done shortly after this meeting.

Continuing under "new business" discussion centered around 5-187, the Native American Cultural Preservation Act which the Secretary undertook to defeat. Father Lee stated that it was.

The Secretary gave the progress report on the Manassas Battlefield project and our attempt to prevent it from being converted into a shopping mall.

Next came a motion by the Secretary to align the fiscal year of the Association with that of the Chapters. No one offered any reasons why we could not. Richard Jackson seconded the motion and the "ayes" passed it. The fiscal year of both the Chapters and the Association are now January to January. The Secretary reminded the membership that the cutoff date for 1988 dues acceptance is September 1. Beginning in 1989, all membership forms that are not typed will be returned to the chapter secretaries.

President-elect McCracken introduced Resolution 88-1, whereas, the Van Epps-Hartley Chapter is hosting this, the 72nd Annual Meeting of the New York State Archaeological Association, and, *whereas*, the accommodations, facilities, program and speaker of this, the Sheraton-Airport Inn of Albany, New York, are of a sterling quality and nature, and, *whereas* Donald Rumrill, Fred Stevens, Mandalay Grems, Dr. Kingston Lamer and Carolyn Weatherwax from the Auringer-Seelye Chapter have worked long and diligent hours to provide our membership with these amenities and programs, be it therefore, *resolved*, that the Association express its most profound appreciation to the Van Epps-Hartley Chapter, and to those named above. This Resolution was initiated by Richard McCracken, seconded by Richard Jackson, and followed by a round of applause.

President-elect McCracken then initiated Resolution 882, *whereas*, *The Bulletin* Editor, Charles F. Hayes, III, members of his Editorial Staff, and members of the Staff of the Rochester Museum and Science Center have significantly enhanced the format of *The Bulletin*, giving freely of many hours of their time and talents, and, *whereas*, they have done so through the innovative use of the latest Desktop Publishing techniques, thereby allowing such enhancement while minimizing rapidly escalating publishing costs, be it therefore *resolved*, that the New York State Archaeological Association extend its salutations and express its deepest appreciation for the efforts of Charles F. Hayes, III, Patricia Miller, Brian Nagel, Suzanne Mooney, Jim Anderson, and Gian Carlo Cervone, and, be it further *resolved*, that the Association also express its gratitude to the Rochester Museum and Science Center for providing the equipment, facilities, manpower, and supplemental funding which have made this project an unqualified success. Again initiated by Richard McCracken, the resolution was seconded by Richard Jackson followed by another round of applause.

President-elect McCracken offered Resolution 88-3: *whereas*, the New York State Archaeological Association is an established, respected, non-profit, educational organization, representing 679 avocational and professional archaeologists, dedicated to archaeological research in the State of New York, and; *whereas*, the shipwrecks which lie sunk in the waters of New York State constituted a significant non-renewable archaeological resource for the benefit of present and future generations, and; *whereas* such resources should be preserved, managed, and utilized for their research value rather than for private profit or gain, therefore be it *resolved*, that the New York State Archaeological Association stands firmly in support of the Abandoned Shipwreck Act, S-858, in unamended form. Initiated by President-elect McCracken, Fran McCashion seconded the resolution which passed on the floor.

The next Resolution 88-4 was initiated by Lewis Henry Morgan President, Robert Gorall, directed towards the U.S. Postal Service, *whereas*, the New York State Archaeological Association is an established, respected, non-profit, educational organization representing 679 avocational and professional archaeologists dedicated to archaeological research in the State of New York, and; *whereas*, the New York State Archaeological Association supports all positive actions toward Native Americans, be it resolved, that we fully support issuance of a postal stamp in 1994 to commemorate the 200th Anniversary of the 1794 Canandaigua Treaty. Since Robert Gorall initiated the Resolution, Fran McCashion seconded it, and it was passed unanimously.

This was the conclusion of "new business," and Richard Jackson made the motion for adjournment which

was seconded by Fran McCashion and the membership, so at 9:30 a.m., the 72nd General Business Meeting concluded.

#### Awards

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

#### *Frederick M. Houghton Chapter*

Meritorious Service: John D. Holland

#### *Mid-Hudson Chapter*

Meritorious Service: Rosalind Stark

#### *Lewis Henry Morgan Chapter*

Fellow: Harold Secor

Meritorious Service: Muriel Gorall  
Annette Nohe

#### *Incorporated Orange County Chapter*

Fellow: Edward J. Lenik

#### *Triple-Cities Chapter*

Meritorious Service: Elizabeth F. Washburn

#### *Van Epps-Hartley Chapter*

Fellow: Lois M. Feister

Fellow: Dean R. Snow

#### *The Royal Order of the Point: Dr. Robert Ellsworth Funk*

# Program

## Seventy-Second Annual Meeting

### New York State Archaeological Association

April 8, 9, and 10, 1988  
The Sheraton Airport Inn  
Albany, New York

Host: Van Epps-Hartley Chapter

#### Friday, April 8, 1988

9:30 - 11:30 a.m. NYAC Committee Meetings  
12:00 - 1:00 p.m. Lunch: NYAC Board Meeting  
1:00 - 2:15 p.m. NYAC Business Meeting  
2:30 - 4:00 p.m. NYAC Program: Initial Results of the Mohawk Valley Project  
4:00 - 6:00 p.m. NYSAA Registration  
7:00 p.m. NYSAA Standing Committee Meetings  
7:30 p.m. NYSAA Executive Committee Meetings  
9:30 - 10:30 p.m. Wine and Cheese Reception

10:55 a.m.

11:15 a. m.

12:00-1:30 p.m.

Floyd I. Brewer, Field Director, Bethlehem  
Archaeology Group  
*16th and 17th Century Changes in Mohawk Population Densities.*  
Douglas P. Mackay, University at Albany, SUNY  
*The John Robinson II Site: Late Archaic Archaeology in Orange County, New York.*  
Edward V. Curtin, New York State Museum  
Lunch Break. Place of your choice.

#### Saturday, April 9, 1988

8:00 a.m. NYSAA Registration  
8:50 a.m. *Welcome and Announcements*  
Kingston Larnier, M.D., President, Van Epps-Hartley Chapter, NYSAA  
9:00 a.m. Business Meeting  
Reverend John R. Lee, NYSAA President

#### Morning Session

Chair – Francia McCashion

9:30 a.m. *Finding New Data in Old Collections*  
Dean Snow. University at Albany, SUNY  
Van Epps-Hartley Chapter, NYSAA  
9:50 a.m. *Fertility, Psychiatry and Genetics - Sexual Implications of a Subgroup of El Ranchero/ Escutcheon Iroquoian Pipes.*  
Richard E. Hosbach, M.D., Asst. Clin. Prof., Pediatrics, Upstate Science & Health Center and Medical School, Chenango Chapter, NYSAA  
10:15 a.m. Coffee and Danish  
10:30 a.m. *50 Years of Ceramics on the Nicoll-Sill Estate, Bethlehem, New York.*

#### Afternoon Session

Chair - Paul R. Huey, N.Y.S. Bureau of Historic Sites (Senior Scientist - Archaeology), Van Epps-Hartley Chapter, NYSAA

1:30 p.m.

1:50 p.m.

2:10 p.m.

2:40 p.m. Coffee Break  
3:00 p.m.

The Prehistory of Fishers Island, New York.  
Robert E. Funk, State Archaeologist, New York State Museum, Van Epps-Hartley Chapter, NYSAA (Note: Co-author, John E. Pfeiffer, Old Lyme, Conn.)  
*The New York Durham Project: New Research in 18th Century Transportation Archaeology.*  
Philip Lord, Jr., New York State Museum (Senior Scientist - Archaeology)  
*The Forts at Fort Hunter.*  
Kevin Moody, N.Y.S. Bureau of Historic Sites (H.P.P.A. - Archaeology), Van Epps Hartley Chapter, NYSAA  
*The Schoharie Iroquois.*  
Dr. John P. Ferguson, Field Supervisor, Department of Archaeology, Iroquois Indian Museum

- 3:30 p.m.      *Beyond Status: Iroquois Women in the Contact Period.*  
Lynn Clark, SUNY Binghamton, Triple Cities Chapter, NYSAA
- 6:00 p.m.      Cocktail Hour (cash bar)
- 7:00 p.m.      Annual Banquet  
Presentation of Awards - Peter P. Pratt  
Keynote Address: New Ideas about Ancient Maya: Recent Research in Southern Belize  
Dr. Richard M. Leventhal, Professor of Anthropology, University at Albany, SUNY

**Sunday, April 10, 1988**

Morning Session

Chair - Kingston Lamer, M.D., President,  
Van Epps-Hartley Chapter, NYSAA

- 9:30 a.m.      *The Canadaway Creek Anthropology Project: High Hopes Versus Low Budget.*  
Alvin H. Morrison, Professor of Anthropology, SUNY College at Fredonia
- 9:45 a.m.      *The Canadaway Creek Anthropology Project: Excavations at the Mallory Site.*  
Eleazor D. Hunt, Dept. of Anthropology, SUNY College at Fredonia
- 10:10 a.m.      Coffee Break
- 10:30 a.m.      *The Rogers Farm Site: A 17th Century Burial Site.*  
Adrian Mandzy, St. John Fisher College, Lewis H. Morgan Chapter, NYSAA
- 10:50 a.m.      *The Shroud of Turin: A Problem in Spatial Perception.*  
Barbara M. Sullivan, Louis A. Brennan/Lower Hudson Chapter, NYSAA
- 11:15 a.m.      *Parting Words, Meeting Adjournment*  
Kingston Lamer, M.D., President, Van Epps-Hartley Chapter, NYSAA

### **The Achievement Award**

Charles M. Knoll (1958)  
Louis A. Brennan (1960)  
William A. Ritchie (1962)  
Donald M. Lenig (1963)

Thomas Grassman O.M.F. (1970)  
Paul L. Weinman (1971)  
Robert E. Funk (1977)  
Peter P. Pratt (1980)

### **Fellows of the Association**

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

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

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

### **Certificate of Merit**

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

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

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