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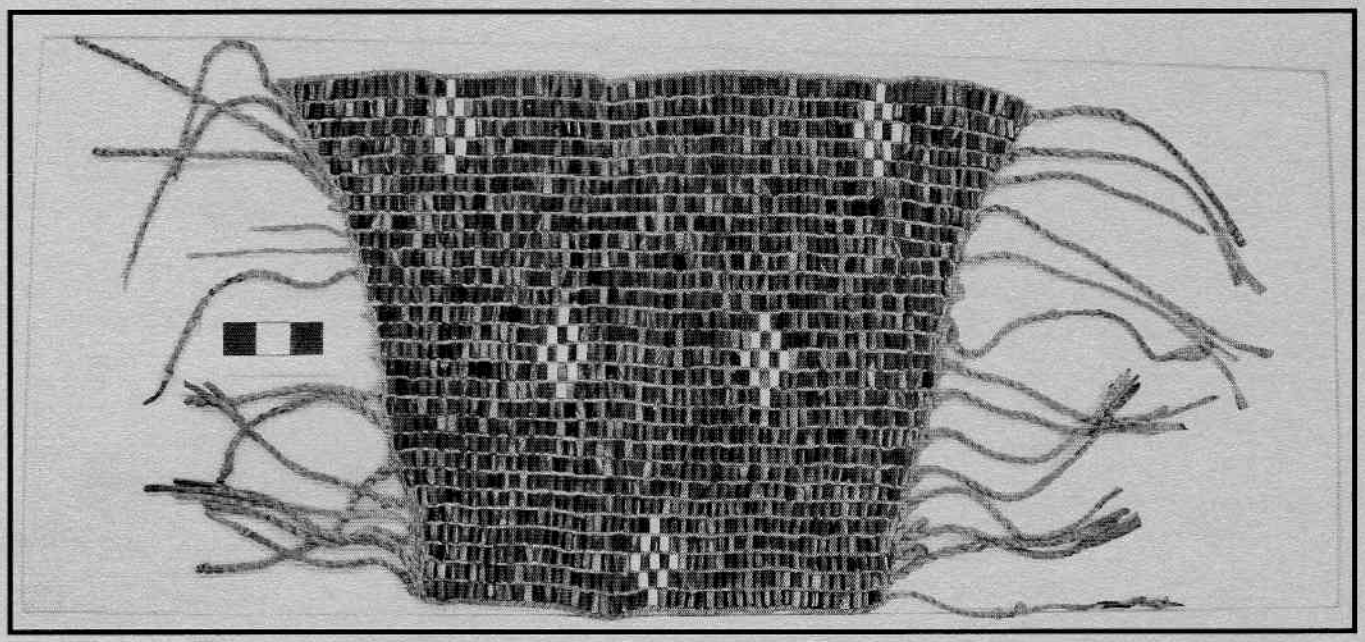

Oneida Indian Nation Cuff, OIN 95.8.2 (Beauchamp 1901:Number 169). Photograph by Deb Twigg.

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Wampum Held by The Oneida Indian Nation, Inc. of New York: Research Relating to Wampum Cuffs and Belts

Marshall Joseph Becker, University of Pennsylvania

The Oneida Indian Nation, Inc. of New York has recently assembled a collection of five examples of wampum including two trapezoidal bands, or cuffs, two bands that may have been diplomatic belts, and a string that may have been an emblem of office for an Oneida elder. Brief descriptions of these important pieces of material culture provide a basis for further detailed studies of these objects and the wampum categories that they represent. The two cuffs and one of the bands came from the Georgian Bay area in Canada. These cuffs represent a rare category of wampum for which only 13 examples are known. Although as many as 300 traditional wampum bands may survive, we have only a few examples for which the makers and users are known. The co-operation of the Oneida Indian Nation, Inc. in this research represents a vital first step in our efforts to decode the history of each known example of wampum.

Introduction

There are three central questions to ask regarding each of the approximately 300 surviving bands of wampum. First, who made it? Second, to whom was it given (presented)? Third, why was this "belt" presented? We now know that wampum bands (and strings) made for diplomatic purposes, commonly called "belts" in English and *collier* in French, were the most commonly noted type of band. Diplomatic belts were only one subset of a general category of woven bands in which the focus was a panel of wampum beads. Not only were these "belts" the most commonly mentioned form of wampum in the colonial literature, but the documents also reveal the emergence of complex protocols in their use (see Jacobs 1949 and 1950). In the Core Area of wampum use, comprising the territories of the three great confederacies (Wendat/Huron, Five Nations Iroquois, and Susquehannock) wampum diplomacy largely superceded calumet ceremonies in diplomatic contexts by the 1650s. Strings of wampum also were used in these dealings, but they served as "low-end" items in formal wampum prestation (a formal presentation, made in conjunction with a specific request).

Another type of wampum band, similarly constructed, is a category made and used within the Catholic convert communities and church. These "ecclesiastical" bands of wampum were made for presentation only among groups within the Catholic church (e.g., Becker 2001a, 2006b). Ecclesiastical band prestations were presented as "calls" made to the faithful, and might be considered as a variation within the category of diplomatic belt use. We often know who produced ecclesiastical belts and to whom they were presented because the missionaries involved in their fabrication and transmission, as well as those who received them, tended to record these events. Ornamental or decorative bands of wampum (see McBride 1993), also described as "personal" wampum, were made and used by several tribes within and immediately around the Core Area, or in what I define as the "periphery" of wampum use. These ornamental items generally remained among their makers, although they may have been given as personal gifts to people outside the community. Religious uses for wampum are less well known in the literature, but a few examples have been recorded.

Despite 40 years of specific studies relating to wampum, we have very few answers to the questions of who made and who received diplomatic wampum belts, the most common type of band. Political controversy and lack of direct study of the existing bands are among the reasons why little progress has been made in answering these questions, even though they apply to the vast majority of known bands of wampum. Also of note is the fact that surprisingly few examples of wampum now can be found within the Core Area of wampum use. The Haudenosaunee ("People of the Longhouse," as the Five Nations Iroquois now prefer to be called) were the principal native users of diplomatic wampum, as seen in the records that span 200 years of activity. Today it is unclear how many wampum bands and other artifacts incorporating wampum are held in the ancient center of use.

The Oneida Indian Nation, Inc. (OIN) has been actively interested in gathering and preserving any surviving examples of these rare items, and in understanding how, when, and by whom they were used. Within recent years the OIN has assembled a small but extremely important group of four wampum bands together with one of the best-documented strings of wampum. Two of the bands are of the rare trapezoidal shape that has been the focus of my recent research (Becker 2007 and Becker in press A), which led me to request permission to study and to publish detailed information related to them. The identification and detailed infor-

mation relating to the two trapezoidal bands, or "cuffs," held by the OIN is the focus of this study.

History of Wampum Studies

More than 30 years ago, as one aspect of my early studies of the Lenape of southeastern Pennsylvania, I began to ask questions about how they used wampum. In 1971 it appeared that their use of wampum was very different from the patterns of use described from among the Five Nations as well as among the immigrant colonists (Becker 2005). At that time trapezoidal shaped bands of wampum, as a specific kind or subset of wampum band, were not recognized as "different" in any way, except possibly in function. Now we know that these unusually shaped bands served as "ornamental" cuffs and possibly as symbols of office. Wampum cuffs merit identification as the focus for a special study. When I first considered the study of wampum, I began a program to catalogue all of the known artifacts composed of these shell beads (Becker 1980). I had no idea how many had survived, and I thought that all of them had been used for presentation at "treaties," or diplomatic meetings. Although it took me more than 30 years to recognize the many categories of bands that existed, by 1973 I had found that wampum bands were to be found scattered among American and European public museums as well as in private collections.

By 1977 I had suspended my studies of wampum in order to concentrate on several archaeological excavations. In 1999 a series of events led me to identify two wampum bands now held in the collections of the Vatican Museums. The study of these two important examples of wampum led me to distinguish among the several subcategories of wampum bands, each with different functions (Becker 2001a, 2002, 2006a). This discovery, plus the important contributions to wampum studies made by Jonathan Lainey (2004), revived my interest in assembling a complete catalogue of artifacts incorporating wampum as some part of their construction (strings, bands, and others). This research program began with a review of the field notes that I had gathered during the 1970s. The program continued by my condncting further museum studies, reading additional early accounts that mention wampum, and rereading all the data published by many other researchers during the past century.

Among the more important scholars interested in the use and meaning of wampum was C. Marius Barbeau, a Canadian scholar who was an expert on the Wendat (Wyandot or Huron). In 1930 and again in 1955 Barbeau (1956:3) visited a number of European museums to photograph and take notes on Native American items in those collections. Barbeau, along with David Bushnell, were the most productive of the North American scholars gathering information on Native American objects held in European collections. The numbers of North American scholars who toured Europe, as well as the extent of the data that they collected, remains largely unknown. Most of the information gathered during their many museum visits remains unpublished (see Becker 1997). European scholars who surveyed the American materials held in various European ethnographic collections include Marcel Mauss (1872-1950) and Christian Feest (see Becker 2001b). Fortunately, information regarding much of the wampum held in European collections is relatively well known (e.g., Hale 189[illegible], Hamm[illegible] Bushnell 1920, Feest 1983, Becker 2001a. Of particular note is the absence of any info any of the wampum bands identified in Eur with any one of the Six Nations, or with the in general. There are, however, two pairs wampum bands of an early date now held in tions that are identified as "Huron" (Wendat)

Trapezoidal Wampum Bands

The categories of wampum bands that now can be distinguished include diplomatic belts, ecclesiastical bands, ornamental bands, and wampum cuffs. Wampum cuffs all share u trapezoidal shape and fall within a limited range of sizes. With only 13 possible surviving examples now known (Becker, in press B), cuffs may be the rarest category of wampum bands. They certainly are the least understood. The makers and the function of these trapezoidal bands of wampum remained largely unknown, and even their use as coat cuffs was then speculative (Beauchamp 1901). Frank Speck's peculiar belief that they were "hair ornaments," together with his error in reporting them as used by the Penobscot, confused the issues relating to trapezoidal bands for nearly a century.[1]

All of the surviving wampum [illegible] primarily from dark shell beads [illegible] white shell beads. The abilit[illegible] basis of the drilling [illegible] size and shape [illegible]

[1] origins of his ideas warrant review. The reasons for his interpretation reflect the peculiar nature of his collecting and record keeping. Speck offered only vague ethnographic "reports" to support this inference regarding the functions of these unusual wampum bands (Speck 1919). His evaluations of these bands over the years varied randomly. In describing them by a variety of names, such as hair ornaments, hair wrappings, and others, Speck hindered modern readers trying to under-

examples that are straight drilled do appear to be later in date, but even this inference has not been demonstrated to be predictive. The absence of glass beads in these examples now held by the Oneida leaves us without clues to their date of fabrication (cf. Pratt 1961).[2]

The 13 examples of wampum cuffs now known are located in at least nine different collections (Becker, in press B). Two sets or identical "pairs" are known where both are in the same collection. These pairs are both in French collections where they were sent in the 1600s. The cuffs from other possible pairs have been separated. There also is evidence for two cuffs with dissimilar designs being used as a "pair," as indicated by the two now in the Canadian Museum of Civilization (CMC). The cuff portions of the CMC "pair" do not have identical decorative designs, but they both now have nearly identical cloth attachments that appear to have been added at a date after their original fabrication. They may have been made separately and only subsequently came to be used as a "pair of cuffs." J. Lainey (personal communication, Oct. 3, 2007) suggests that symmetry in design as well as the idea that cuffs were used in "pairs" reflects modern ideas that may not apply to the production and use of these items. Although some cuffs clearly appear to be "matched" pairs, some may have been produced as single examples, and some of these individual examples may later have been paired with a second cuff, either matching in design or not.

The Oneida and Wampum

The peoples forming the League of the Iroquois occupied the center of the Core Area of wampum use. A few wampum-like beads appear at Seneca sites at the very end of the fifteenth century (Ceci 1985, 1989) but they are not documented in large numbers at Seneca sites prior to 1625. Three of the 58 burials from the South Locus of the Oneida Thurston Site (A.D. 1625-1637), all of females, include wampum (Pratt 1976:129-130). However, the "wampum" illustrated by Pratt (1976:229, Pl. 38:8) reveals a series of shell beads of general wampum shape but with considerable variation in size. The question of when wampum bands first appear among the Oneida, therefore, remains unanswered.

Within the League, the Oneida people generated, presented and received enormous numbers of diplomatic wampum bands, generally called "belts." Most of those received by the Oneida may have been held at Onondaga, where the Moravians Charles Frederick and David Zeisberger (see in Beauchamp 1916) were resident in 1754 into 1755 to learn the language. James Folts (1999:152, from Beauchamp 1916:215) notes that during that period of the mid-eighteenth century the "Six Nations Council at Onondaga had custody of a 'whole pile' of wampum belts" that were temporarily in the cabin occupied by the two Moravian brethren.[3]

James Folts (1999:153) points out that most of the many Five Nations diplomatic belts have been lost, or recycled, and that there is considerable difficulty in simply tracking the numerous documents that record their use. Folts notes that there is no single or unitary "archive" for the many documents relating to wampum prestation. John Van Ness Yates, the New York State Comptroller, made an inventory of the New York records in 1818 (Folts 1999:163, n.13) in an attempt to list those belts noted in the archived documents. Fortunately, many of the comptrollers' documents were selected for preservation in 1910, before a disastrous fire destroyed a large part of the archives. The documents that survived include a great number that relate to Indian affairs in New York after the Revolutionary War. Although wampum use in diplomacy was coming to an end in the early nineteenth century, details of postwar conferences and treaties between the Six Nations and the State of New York

stand his reasoning. Speck's 1929 "Catalogue" of his wampum collection then being sold to the Heye Foundation suggests that as late as that year Speck remained ambivalent regarding the function of these trapezoidal bands. In that catalogue, or listing, we find the following entry, with the "cuff" interpretation struck out and the focus directed toward the "hair ornament" theory by an entry penned in above the words struck out:

> *said to be a*
> "a. Ornament ~~possibly a cuff or~~ woman's hair band "
> (Speck 1929:[1]).

I suspect that Speck's 1911 statement that those trapezoidal bands had been used as hair ornaments derives entirely from Champlain's readily available description that soon after was published in a definitive edition (1922). As late as 1929 this issue had not been resolved in Speck's mind.

[2]Specific note should be made that glass beads of wampum size, shape, and colors appear at Seneca sites before 1660 and increase in numbers during the period 1660-1675 (Ceci 1985:11, see also Ceci 1989). These types of glass bead also are found at Oneida sites. Only one example of the "tumbled opaque white cane" variety (Pratt's type No.50) is known from the Thurston Site (1625-1637), "many" from the Clark Site (1642-1660), but none from three sites dated between 1677 and 1745 (Pratt 1961:10). Tubular black cane beads (Pratt's No. 70), of which the "shorter are tumbled," first appear at the Shepherdson Site (1677-1710; N=739). Far fewer are known from Oneida sites of later dates (Pratt 1961:13). The extreme rarity of these types of glass bead, or of the very similar dark brown and translucent blue (Pratt types 76 and 120), in diplomatic wampum belts reflects a proscription of their use for political and probably ritual purposes.

[3]What is not clear is if this cabin was the place where the Onondaga wampum collection was stored and the Moravian guests were honored by being lodged there during their long stay, or if the cabin had been built by or for the Moravians and then the wampum was stored in this dry and safe place

survived in the written records. There remained great interest in the amounts of payments made and also "accounts [paid] for the making of wampum belts" by the new government (Folts 1999:158).

Although most of the Five Nations diplomatic belts may have been held at Onondaga, condolence wampum as well as wampum used in ornamentation and any possible ritual items that incorporated wampum, would have been held at various Oneida villages (cf. Becker, in press B).[4] It is possible that many diplomatic belts also circulated within the specific "castles" of the League, perhaps in great numbers. Beyond the wampum noted in diplomatic records (see Hauptman 1999), there are numbers of ethnographic references to wampum and its uses among the Oneida, as well as among each of the other Five Nations groups and the Tuscarora.

Perhaps the most interesting use of wampum beads among the Five Nations concerns the "White Dog Sacrifice," a ritual event of considerable importance with parallels in Christian and other religious systems. How similar the White Dog rituals were among the various members of the Five Nations remains unknown, but in general the White Dog rituals involved the sacrifice by strangulation of pure white dogs, usually in pairs. Strangulation would not mar or damage the pelt or skin, nor stain it with blood. The dogs were, however, ritually painted. Lewis Henry Morgan (1852:73, cited by Holmes 1883:241) stated that "White wampum...was hung around the neck of the white dog before it was burned: ..." Asbel Woodward may have taken his 1878 view of the white dog sacrifice from Morgan, but Woodward's note of a pole being used suggests another source:

> [illegible] the neck of [illegible] pole and offered as a [illegible] Ha[illegible]. The wampum was in [illegible] [Woodward 1880:32-33]

William Beauchamp's (1879:230) list of 12 wampum belts and some strings that he had seen in the hands of the Onondaga in 1878 includes an important suggestion regarding the use of strings at that time. Beauchamp made specific note of certain wampum bands, especially:

> ...the fragmentary ones now at Onondaga. These last, I imagine, are slowly disappearing. Wampum is in request [demand ?] at the white dog sacrifice, and this may account for the broken condition of some of the belts [Beauchamp 1879:230].

To determine if this observation is correct we need to examine the 12 belts described by Beauchamp to determine if white wampum is more commonly missing than [illegible] beads. Regarding the strings that Beauchamp (18[illegible]) was shown, he reported that he had been given a [illegible] account of their use. This "account" appears to be the [illegible] for five pages [illegible] Beauchamp's (1901:345-349) *magnum opus*. Of [illegible] the following passage:

> The Oneida chief Abram H[illegible] wampum in 1878 with [illegible] Most of the large collection of strings and loose wampum was his own. There were no belts nor were these [belts?] often used in recent years on public occasions, many writers to the contrary notwithstanding. Most of his wampum was the black or purple, the white being now [1878?] quite rare [Beauchamp 1901:345].

There follows a long description of the various strings and the varied uses that they served, such as symbols representing each tribe, for presentation in condolence and mourning rituals, and as greeting and in announcing meetings (Beauchamp 1901:345-349). These data are followed by a long discussion concerning the volume of wampum that survived in the latter part of the nineteenth century.

In fact, while many of the 12 belts at Onondaga may have been missing many wampum beads by 1879, I doubt that the major examples were then being dismantled for their white beads. The recycling of strings and small bands was common among native holders (Becker, in press A), and these were available to provide beads. I also have had numerous verbal reports that loose beads were common in central New York as late as the 1950s but their color was not reported to me. None of the observers of the White Dog ritual provides any indication regarding how many wampum beads were destroyed during each ceremony. W. H. Holmes (1883:252) accepted Beauchamp's conclusion that bands were being dismantled, pointing out that "Mr. Beauchamp, states that they [the 12 belts at Onondaga] are yearly wasting away, as a little wampum is annually caste into the fire at the burning of the 'white dog,' and these belts are the source of supply." Whatever the actual source at that time, Snyderman (1961:590) reports that Beauchamp apparently observed the ceremony at Onondaga in 1894 and noted that wampum was no longer used.

[4]Nina Versaggi (personal communication, Sept 19, 2007) reports that Onondaga chiefs report the continuing use of "talking sticks." These are short strings of wampum affixed to small sticks held by these "chiefs" and providing them with the authority to speak at the Council of [Onondaga] Chiefs. The "Beechtree-Webster wampum string" now held by the OIN may have served a similar purpose among the Oneida, [illegible] for the Oneida who held it (see text)

Laurence Hauptman provides an excellent review of the literature on the White Dog ritual as reconstructed among the Oneida. He notes that after strangulation and painting of the dogs that the officials in charge "decorated them with ribbons and a wampum collar" (Hauptman 1999:28, 35 notes 33 and 34). The term "collar" commonly appears in the early accounts but it is not known if this indicated one or more strands of wampum, a band of one row (beads side by side), or possibly a band of several rows. Also never mentioned is the color of the wampum used. Was it white, in keeping with the "purity" of the dogs, or dark in contrast to the white pelt? Various authors suggest the use of white beads only. An interesting and perhaps important historical perspective is provided by the narration of the white dog sacrifice by Jim Antone on 10 May 1939 (see in, Oneida Elders 1999:112). Antone makes no reference to the use of wampum in this ritual, re-affirming Beauchamp's observation some 45 years earlier of the loss of wampum use in the ritual at Onondaga by that time.

Information regarding ritual uses for wampum within native communities, as well as any ornamental functions, is surprisingly limited. These uses of wampum were culturally embedded within each tribe, being part of the complex fabric of culture so well understood by the participants that there was no need to record the information. Diplomatic wampum presented or received by colonists, on the other hand, was carefully described as important aspects of treaties and interactions. The use of wampum appears, therefore, diligently recorded in the minutes that were essential parts of these encounters. The numbers of diplomatic belts noted in the many Oneida treaty records alone are so numerous that a simple listing would be extremely difficult (see New York [State] Assembly 1889:234-365; also see Shattuck 1991). Even if the many small belts and strings (see Becker, in press A) were ignored, and only belts with some description accompanying them were included (e.g., numbers of rows, color, design elements) the listing of those belts presented by each participating group, or just shown (displayed) at treaties, and those received would be a daunting task. Diplomatic uses for wampum among the Six Nations were in decline by the 1790s (Becker 2002), and were gone by 1820. The leaders of the Six Nations had come to prefer the detailed written records of treaties to the wampum that served only a limited mnemonic function. The "readings" of wampum belts were subject to information loss and distortion, as well as problems resulting from the death of a speaker. No specific mention is made by Campisi (1988) of wampum use among the Oneida in whet he calls the "Treaty Period" (A.D. 1783-1838) (see also Hauptman and McLester 2006). The original treaty documents and meeting minutes will have to be examined to determine changes in the degree of wampum presentation during this period, and the possibility that the documents will reflect a gradual decline in use during this important span of time.

By the 1820s the use of diplomatic bands of wampum in the Core Area had largely ended. Even strings of wampum were becoming rare in diplomatic contexts, although their use in other contexts appears to have been understood among some groups for at least another 50 years. The use of wampum beads as currency, or small change (Becker 1980), also was being superseded by the issuance of United States coinage at about the same time. The Wendat (Huron) who had moved west during this period carried half of the tribal bands with them, and appear to have retained the use of wampum in diplomacy longer than among the Six Nations. A few other western peoples, or tribes immediately to the west of the Periphery of wampum use, continued to use wampum for various decorative purposes. Diplomatic belt use soon passed out of favor in the west, and in the Core Area they were becoming a part of the material culture that had lost its original meanings among the Oneida and others.

What we do not know is whether any belts went west with the Oneida during the period 1821-1838 when hundreds of these people moved to a new reservation containing 65,000 acres of land situated immediately west of Green Bay, WI (see Campisi and Hauptman 1988). The lands on which these Oneida settled had belonged to the Ho-Chunk [Winnebago] and to the Menominee (Hauptman and McLester 1999), peoples who lived far beyond the periphery of wampum use. Any wampum bands then found in that region may have been brought by the migrating Oneida or by Wendat or other groups from the east. As yet, none have been reported or identified in the literature.

Oral Traditions: Remembering?

Among the numerous aspects of the folklore studies conducted by the Depression era Works Projects Administration (WPA) was a specific Oneida language and folklore program (Campisi and Hauptman 1981). I have not been able to locate Maria Hinton's [1996?] transcriptions of several narrations, but a story related by Melissa Cornelius has been reproduced exactly as it appears in the original "version" as published by the Oneida Elders (1999). While information is promised regarding traditional uses of "wampum (*oniko·la*)", its importance to the Oneida, to Indian law, and to the dispensing of justice (Oneida Elders 1999:111), the tales deliver none of this. Even the terminology used for wampum by these narrators is questionable (cf. Steckley 2007; also Michelson 1991; Michelson and Doxtader 2002). The Melissa Cornelius narration suggests that wampum was in use before the arrival of Europeans.

This is refuted by the archaeological evidence (see Ceci 1985, 1989; Becker 2002), but if the Cornelius narration is interpreted as indicating that wampum was used in diplomacy before "white" influence, or before the Oneida use of writing and European legal systems superceded traditional uses, the text is perfectly accurate. The stories of Demus Elm and Harvey Antone (2000) also should be considered (cf. Becker 2004b).

Two Cuffs Held by the Oneida Indian Nation, Inc.

The impressive efforts made by the Oneida Indian Nation, Inc. (OIN) to reclaim and take charge of their archaeological heritage (see Wonderley 2006:1) has been extended to include other aspects of Native American life. Four bands of wampum were purchased by the OIN during the 1990s, in two separate transactions. The focus of the present study is on the two wampum cuffs, purchased in 1995, that significantly expanded their holdings of important pieces of Native American material culture.[5] The cuffs now held by the OIN had first been reported by Beauchamp (1898, 1901:426, Plate 12, items 169 and 170). These were only the second "pair" of cuffs to be documented anywhere in the published literature. In 1897 Hamy published a plate in which a pair of cuffs appears among the many items of wampum then at the Trocadero Museum in Paris. Recently this pair was transferred to the newly opened ***Musée du quai Branly***, also in Paris. The following year William Beauchamp (1898) published a brief note referring to examples of this category of wampum band that remained in North America, along with somewhat accurate drawings. Beauchamp noted that "[t]wo small belts sent [to] me for inspection, not long since, were of a peculiar form, the outline being that of a deep basin [e.g., trapezoidal]" (Beauchamp 1898:12). Beauchamp later (1901:426, Pl. 23 item 254, also Pl. 12, items 169 and 170) indicated that three bands from the same location had been sent to him.

> In 1895 S. H. Goodwin sent the writer three small belts for examination, which he had from near the Georgian bay [sic], Canada. Fig. 254 shows one of these, being an ordinary belt of seven rows, having five rows [slashes] of white beads arranged diagonally on the dark ground. The others were of unusual form, an expanding basket shape, broad at the top. Fig. 169 shows one of these [that is] 28 rows deep, having five open white diamonds on a dark ground. Fig. 170 is of the same general form, and is 27 rows deep. It has nine open squares of white beads arranged diagonally. The foundation of both is of twine [Beauchamp 1901:426].

The caption for Beauchamp's Plate 23:fig. 254 identifies the long band with five slashes as an "Ordinary belt of seven rows from near Georgian bay, Canada." We now know that the slashes are actually unusual, being formed by four white beads in each row that overlaps by only one file with the four white beads in each successive row. The caption for Plate 12 does not provide a place of origin for the two cuffs or indicate a linkage with the 7-row band (see Appendix A for terms used). We also have no further data on S. H. Goodwin. A web version of a history of Madison County, NY (Hammond 1872:478-541) includes the information that the first store of importance in Oneida, New York was "S. H. Goodwin and Co.," built in May of 1844 on Madison Street. This building burned in 1862 and was replaced by a brick structure. How and if this founding Goodwin was related to the purchaser of these bands is not known.

Of some possible relevance is the sale of belts during this general period by David Swan of Kanehsatake. Swan, who may have gotten some of the belts that he sold from the Georgian Bay area, provided a number of them to David Ross McCord. Lainey (2004:136, n.141) indicates that Swan had told McCord about a trip to Lake Huron and to the Six Nations Reserve to buy objects (see Lainey 2004:193 for an example of Swan's acquisitions). Collectors and brokers from a wide range of backgrounds were buying native artifacts in the late 1800s and into the 1900s. Although I believe that these three bands had remained in the hands of Wendat who continued to live in the Georgian Bay area, or who had returned there, Lainey is much more cautious as the known groups of Wendat were elsewhere during the latter part of the nineteenth century. Lainey also points out that Ojibwa were the dominant group in that area at that time, with perhaps Ottawa and Pottawatomi also in the area. Lainey notes that the Wyandot, Ottawa, Ojibwa and the Pottawatomi once formed the "Three Fires Confederacy of the Great Lakes." Perhaps wampum cuffs were used as "official badges of office" during proceedings of that council (Lainey, personal communication, July 16, 2007), and these cuffs may have dispersed with these groups. The Ojibwa used wampum in diplomacy at the beginning of the nineteenth century, and may have retained some cuffs, but perhaps without retaining any idea of their original functions. But we still have no data regarding any specific vendor of these three bands to S. H. Goodwin, either as an individual collector or heir, or someone living within a native community.

[5] A brief description of a recent trip to study the important wampum artifacts now held by the Oneida, along with small illustrations, can be found in Becker 2007. Karen Hartgen is believed to have been asked by the Late Chief Paul Waterman, prior to 2002, to make record photographs of wampum then held by the Onondaga

We also have yet to identify any details regarding the life of S. H. Goodwin, or how the three Goodwin bands from the Georgian Bay area descended from him to Merry Barnaskey of 569 Broad Street, Oneida, New York before 1995. Genealogical and related research should reveal the connection. In 1995 Ms. Barnaskey sold these three bands, at least one of which was said to have been used as a hot plate, to the Oneida Indian Nation, Inc. (Barnaskey 1995). The Wendat origins documented for most of the known cuffs led me to speculate that these two loaned to Beauchamp had a Canadian owner. On the other hand, Beauchamp's inclusion of these cuffs in his classic "Wampum and Shell Articles Used by the New York State Indians" (Beauchamp 1901) led me to believe that the owner or owners at that time were resident in New York State. J. Lainey points out that not all of the shell artifacts illustrated by Beauchamp were used by the New York State Indians. Beauchamp also included belts then at the Trocadero Museum in Paris that were thought to be Huron.[6]

Beauchamp (1901) illustrated these two cuffs, and many of the other items that he identified, with drawings rather than photographs. The drawings provide a good idea of the designs seen on the originals, but lack details relating to the white wampum edging, construction, or any of the damage or irregularities that may have been present by 1901. Beauchamp specifically described these two bands as cuffs, perhaps having inferred their use or being told of their function at some time around or after 1898. After the 1901 publication, these cuffs and the related belt that came from Georgian Bay with them disappeared from public view.

The Goodwin-Beauchamp Wampum Cuffs of the OIN

Recently these two cuffs "re-emerged" together with the long, 7-row, five slash dark wampum belt that had been secured in Canada by Goodwin. In 2005 the cuffs were prominently featured in a section of the website of the Oneida Indian Nation under the heading "Wampum at the Shako:wi Cultural Center." The Center is located c. 35 mi (50 km) east of Syracuse, NY. By January of 2007 an even more detailed photograph of these cuffs was posted on this website (www.oneida-nation.net/culture/wampum.html) allowing for better descriptions to be made. In January of 2007, Dr. Anthony Wonderley, now retired Tribal Historian for the Oneida Indian Nation (OIN), kindly replied to my inquiries regarding these objects and the possibility of conducting a detailed study of them as apart of my general research program. Prior to leaving the OIN, Dr. Wonderley put me in touch with Brian Patterson (Bear Clan Representative to the Tribal Council of the OIN) to provide access to their collections specifically for research on wampum. Mr. Patterson kindly made all the necessary arrangements for this study to be conducted for the purpose of scholarly publication. Since the Shako:wi Cultural Center is not a museum it has no curator or registrar on staff. Their collection policies did not have a set of procedures to govern research and publications, but Mr. Patterson rapidly formulated an *ad hoc* policy to allow this study to be conducted. In addition, copies of the Collections and Holdings list (Oneida Indian Nation nd) the Bill of Sale (or purchase agreement; Barnaskey 1995), and the conservation record (Krumrine 1995) were generously provided for this study.

Examination of the cuffs and both long wampum bands now held by the OIN was conducted in June of 2007 through the efforts of Brian Patterson and Jesse Bergevin, newly appointed Tribal Historian and Archaeologist. These items, due to their considerable cultural importance and monetary value, are held in the vault at the OIN Police Building in Canastota (Madison County), NY, not far to the west of Oneida. Ms. Deb Twigg of Waverly, New York (Director, Susquehanna River Archaeological Center) kindly assisted in this phase of the study. Ms. Twigg acted as photographer, providing a visual record for this research program that concentrated on detailed descriptions of the cuffs. The focus on the two cuffs related to a larger project relating to the existing wampum cuffs. Detailed study of the long belts and strings of wampum held by the OIN has been left for a future project.

When the wampum cuffs and the related belt were purchased in 1995, the OIN immediately arranged for professional conservation of these three important objects. All three bands include only shell beads, and all three have been assembled using typical wampum band construction techniques. The shell beads of the cuffs are strung on twisted "fiber" wefts, woven between warp strips of hide (lines). The lines extend beyond the beaded portions, or "panels," to form fringes that, on the cuffs, have been twisted like cord rather than being braided. Were three or more warp lines joined we would expect them to be braided. Beauchamp perceived the warp as being fiber, as did I when I first saw the twisted ends of these warp lines. However, the places where the warp lines are damaged reveal them to be all leather lines. At the ends of each pair of fringes that form a single twist, the lines have been twisted or knotted around a

[6]In searching for Beauchamp's letters in the hope of identifying the owner of these cuffs in 1898, I contacted George Hamell at the New York State Museum. Hamell reports (personal communication, Oct 25, 2006) that the "Beauchamp collection, including his papers, were originally acquired by the State Museum in 1949 from his daughter." Hamell also reports that this specific collection of Beauchamp's papers, which are mostly unrelated to his official Museum duties, were transferred to the State Library around 1980.

small, separate length of line. These small lengths of hide are only two to three cm long, but form a type of tassel at the end of each fringe. Not examined in this study was how the line was twisted and if it was twisted prior to weaving the wampum.

The hide used in both cuffs retains impressive flexibility, possibly reflecting brain tanning of the skin prior to cutting the warp lines. Damage that was noted in 1995 and repairs that were made in that year to each of the three objects from the Barnaskey group are described in the field notes. Some of the errors in Krumrine's conservation evaluation (1995) have been corrected. No glass beads were used in the construction of either of these cuffs, or in the associated wampum bands. The different numbers of rows in each of the two cuffs suggests that they were not originally made as a "pair" such as the matched examples now in Lille, France, or in Paris. They may have been made as two single examples or they may represent two separate pairs, or a combination of these possibilities (one was made as a pair and later joined a single example). Descriptions of each of the cuffs are as follows (see Appendix A for definitions of terms used):

1. OIN 95.8.2 (Beauchamp Number 169): Cuff with 28-rows of dark beads with design consisting of five white checked "diamonds" (Figure 1, see also Becker 2007:3, right). The beaded portion of this band has a maximum width of 226 mm, and a width at the lower edge of 137 mm. The height is 166 mm. The 28 rows of wampum are strung between 29 warp lines, which extended beyond the beaded panel for various lengths before being twisted into 15 fringes. Damage has since "multiplied" the number of "fringe" elements by untwisting some of the "two-line" twisted elements into two separate strands. Note that the fringes of OIN 95.8.2 are generally much shorter than those of OIN 95.8.3, perhaps because its beaded zone is 34 mm longer at the top, enabling it to be tied around the wrist using shorter fringe elements. William Beauchamp (1898:12) correctly noted that this 28-row band had 76 beads in the upper row and 47 in the lower. I did not verify his total count of 1722 beads. The rapid tapering of this belt, from its widest point down to the narrowest, is a result of the many rows that are offset by one bead at each end. These average about one for every two rows, but the pattern of offsets is not regular.

The five "elements" that form the design are all checked diamonds each being 5-rows tall and containing nine white beads. The twenty-fourth bead in the top row is white. These checked diamonds form a "V" design similar, if not identical, to one of the cuffs in the Canadian Museum of Civilisation (III-I-1085B). Between the two diamonds that form the upper points of the "V" and those two diamonds in the center of the cuff, there are seven rows of dark beads. Below this middle pair of diamonds and the diamond forming the tip, there are six rows of dark beads. Aside from the white wampum in the five decorative elements, no other white beads are evident in the illustrations of this example.

2. OIN 95.8.3 (Beauchamp 1901:Number 170): 27-row dark background with a design in white rectangles (Figure 2, see also Becker 2007:3, center; 6, right). The design originally consisted of nine complete, small open rectangles arranged as a single diagonal "slash" crossing from the upper left down to the lower right. In the "upper right" corner of the cuff is a small open diamond, three rows tall, composed of four white beads. The top white bead of this "diamond" is in the third row from the top of the cuff and the lowest bead is in row 5. The midsection of the diamond, in row 4, spans files 59 to 61. This element provides an orientation by which a description may be made. Beauchamp (1898:12) correctly stated that the 27-row band originally had 68 beads in the upper row and originally had 49 in the lower. I did not confirm his count total of 1580 beads. The beaded portion is 192 mm broad at the top, with another millimeter or two in width provided by the binding of the margins. The beaded part is 139 mm wide across the base, with the binding and edging increasing the measurement to 145 mm. The beaded section, including the binding, has a maximum height of 162 mm, but this varies to a minimum of 152 mm.

Each of the nine open rectangles was three rows tall and four beads wide. They are spaced evenly over the 27 rows of the belt so that there is no overlapping in the rows. Along the margin of this belt, on the side with the small diamond, are woven 8 (on the left, 10 on the right) white wampum beads that define the diagonal margins. The top three rows all have the same total number of beads. The lateral beads of the upper two rows are dark, but the lateral beads of row three are white. This signals that the row below will be inset by one file, a pattern that continues down the margin. The lowest lateral bead in each "step" is white. The eight white beads along the left edge offer the same "signal" as the ten white beads on the right, but the greater number of white beads on the right indicates a greater number of insets and thus a greater angle on that margin. The top, bottom and side of the beaded panel have added binding, possibly of fiber.

The leather lines of the warp extend out from the

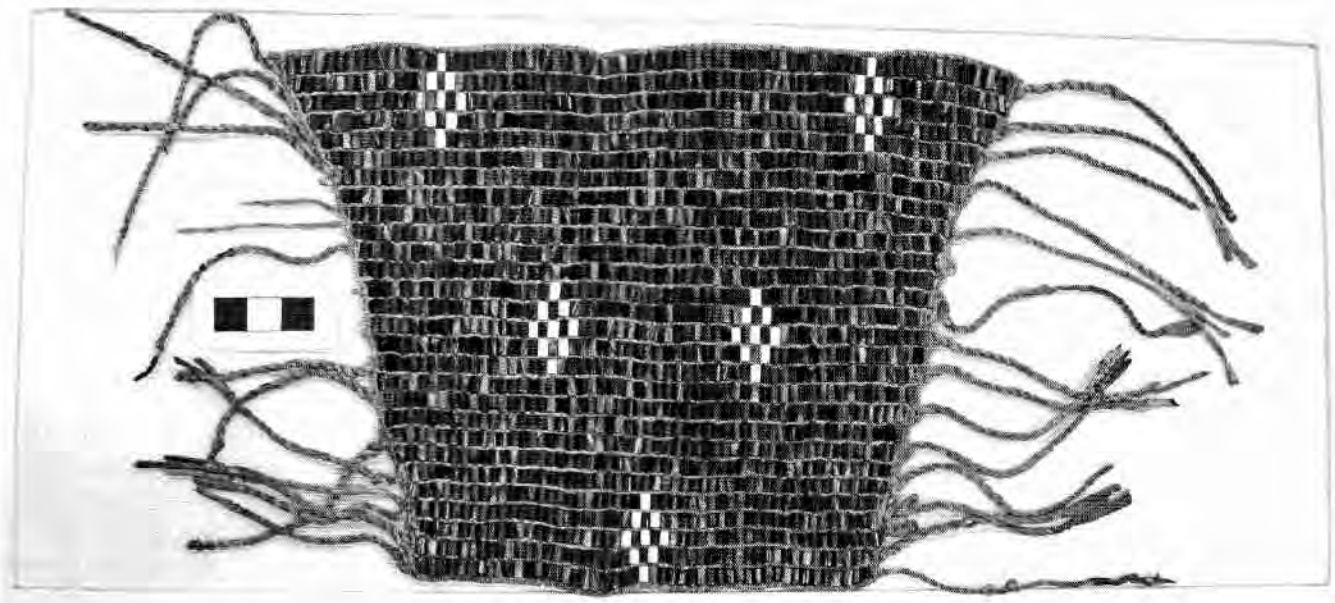

Figure 1. Oneida Indian Nation Cuff, OIN 95.8.2 (Beauchamp 1901:Number 169). Photograph by Deb Twigg.

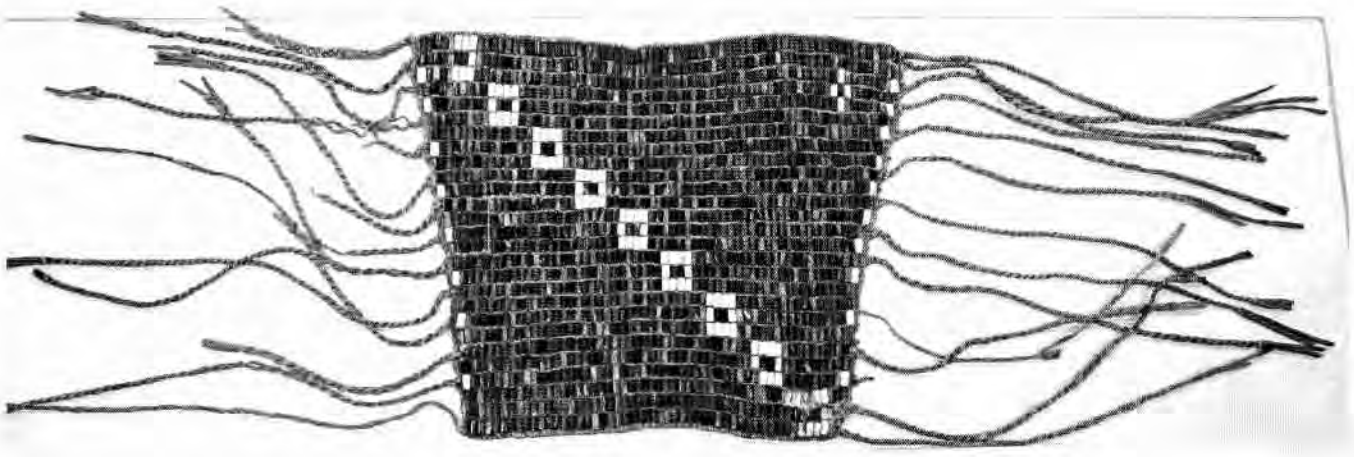

Figure 2. Oneida Indian Nation Cuff, OIN 95.8.3 (Beauchamp 1901:Number 170). Photograph by Deb Twigg.

beaded panel as two-ply "string-like" units that are carefully twisted, and not braided. The twisting makes the leather resemble fiber cordage, which is always twisted in its production. At the ends of these fringes, the two-ply "cords" are looped or tied around a short (30–40 mm), separate length of hide line, forming an end that resembles a tassel. The lengths of each braid-like tassel, many of which are damaged, as well as list of missing beads appear in the notes.

Brief Notes on the Three Other Pieces Held by the Oneida

1. OIN 95.8.1. [tentative assignment]: The Georgian Bay-Goodwin Belt. The five slash, 7-row dark belt that came from Georgian Bay, together with the two wampum cuffs described above, will be studied in detail at a future date. As noted above, the design on this band, five diagonal lines (slashes) formed by white wampum, are unusual in their formation (see Becker 2007:1, fig; 3, left; 6, right). Each is formed by sets of four white beads in each row, offset by three beads in successive rows. Thus a total of 22 files are spanned by each slash—the maximum possible steep slant with an angle that is visually cohesive. The five slashes all together span a total of 110 files, or approximately one-third of the total estimated number of files in this belt. Overlaps of two or three beads per row are more common, and are visu-

ally better suited to shorter belts than this example. One end of the Georgian Bay-Goodwin belt appears fairly intact, with the eight warp lines mostly undamaged. The opposite end has damage to most of the warp lines, and possibly some bead loss.

2. OIN 97.6.1. [tentative assignment]: The Second OIN Belt (Heye Foundation?). This belt is a 7-row dark bead belt with six regularly space 7-row, open, checked hexagons (Becker 2007:3, left). All six hexagonal design elements are alike, and all span the full seven rows of the belt. Each has a hexagonal outline with a "checked" (or checkered) body (the construction is of alternating white-dark beads). "Open" means that the most central bead is dark in color. The actual design, therefore, is of a checked diamond or eight white beads surrounded by a checked hexagon of 14 beads. Each design element thus has 22 white wampum beads, and spans nine files. Approximately 65 to 70 files of dark beads separate each of the six designs, plus about 20 files at each end. Thus the total number of files is approximately 485.

The second of the wampum belts now held by the OIN "was purchased sometime in June 1997" (J. Bergevin, personal communication, July 9, 2007). Bergevin and others believe that this example had been bought through an auction at Sotheby's with the OIN bid accepted before 23 June 1997 (J. Bergevin, personal communication, October 1, 2007). Details have not yet been confirmed. Bergevin also reported that a photograph of this object is kept together with a FAX noting that it is item 9 (no page number), and listing it as "An Eastern Woodlands Shell and Fiber Belt" from the Wellman Collection. Its provenance is described by Bergevin as "Reportedly collected on the St. Regis Reservation, c. 1890. Museum of the American Indian. Heye Foundation, no. 15/3300." Two inventories are known of the wampum artifacts that were held in the Museum of the American Indian—Heye Foundation (MAI-HF), one in 1938 and the other in 1964. I have copies of both (Becker Ms. C). The number "15/3300) does not appear on either the 1938 inventory of Heye Foundation wampum or on Donna Taylor's 1964 inventory of the Heye wampum belts (see Becker Ms. C). However, there is a Heye Foundation 7-row belt with the number 15/3399 (MAI-42). The "catalogue" information relating to the beads of the MAI 15/3399 "belt" indicate recovery from an archaeological context ("a grave at Tadousac [sic], Ontario [sic], Canada") and that they were strung in "order" by a nun. J. Lainey (personal communication, Oct. 3, 2007) points out that the actual find site may have been Tadoussac, which is in Quebec Province, at the mouth of the Saguenay River. The catalogue gives the measurements of the restrung belt as 32 ¾ in long and 2 in wide, and offers other specific pieces of information. None of the information with the MAI belt clearly links it to the OIN purchase, but I suspect that they are one and the same.

Three features of the OIN belt indicate that this band is a "reconstructed" belt recovered from an excavation, as suggested in the MAI-HF records. First, all four edges appear to be bordered with red wool or some other fiber. Second, the eight warp lines appear perfectly intact at both ends of the belt, suggesting a lack of wear. Third, the warp lines at both ends are tied off into four "braids" or tassels, a feature common on small ornamental bands or garters (see Becker , in press A) but not on diplomatic belts.

The catalogue number supposedly associated with the OIN band and provided to me is "15/3300." This number may be in error, or simply may represent a typographical error. If this belt can be traced to the collections of the Museum of the American Indian-Heye Foundation,[7] we cannot now account for how it left that collection. The MAI-Heye Foundation collections were transferred recently to the National Museum of the American Indian in Washington, DC. How this belt came on the market, and if it were auctioned by Sotheby's, remains unclear. A Sotheby's expert in Native American items who was associated with that organization in the 1990s did not respond to my inquiry.

3. The "Beechtree-Webster wampum string": or, Dan Webster's Wampum String, "Repatriated" to

[7]A number of thefts of wampum are rumored to have taken place in the late 1940s and 1950s, and at least one theft of Native American artifacts, possibly including wampum, from the Museum at the University of Maine is documented from the 1970s (Becker Ms. D). The Heye Foundation thefts appear to be better "known," but are not documented in any of my records. Verbal reports associating an OIN belt said to have been purchased with Sotheby's in 1997, but with no supporting documentary evidence, should be examined further. The famous Peter Watson book about Sotheby's, coincidentally published in 1997, supposedly led to the closing of their Antiquities Department in London, but not in New York City (see Watson 1997, also Gill 1997).

Thefts of wampum from the Buffalo Museum of Science after 1960 also are rumored to have taken place, but aside from e-mail reports I have no documentation of such events. Rumors relating to sales of "repatriated" items continue to persist, but to my knowledge they remain completely undocumented.

the Oneida. Anthony Wonderley (2004:133-137) provides an important overview of Oneida folklore and history that includes an excellent description of this specific item and its history. This well known "string" of wampum "repatriated" to the Oneida a decade ago was signed for by their authorized representative, Ray Halbritter, and is also said to be held in the vault at Canestota, NY, but was not seen by this author. It is now the property of the Oneida Indian Nation, Inc.

The *Federal Register* posting of a "Notice of Intent to Repatriate" dated October 30, 1998 (Vol. 63, No. 210: 58417) indicates that this "string" was purchased by the American Museum of Natural History from Mr. Erasmus Tefft, who had secured it from Mark Harrington, who purchased it from Mr. Dan Webster of Oneida, New York. Mark Harrington (1907:175) recorded this transaction as having taken place in Oneida, New York where he purchased an item called *Oni go' lh'* that represented the chieftainship of the Oneida turtle clan from Dan Webster. Harrington may have believed that *Oni go' lh'* was the name of the string he bought, but the term may simply mean "wampum" (cf. *onikola* = wampum, as per Oneida elders 1999:111), and *óniko:lha?* according to Michelson and Doxtader (2002:641). This appears to be the type of wampum string noted by William Beauchamp in 1879. Beauchamp (1879:230; see also Holmes 1883:241), after his listing of twelve wampum belts that he had seen "in Onondaga County, N. Y.", notes that these Onondaga also held several "strings of wampum, which are handed down from chief to chief, and which appear on all great occasions. From the chiefs I have had an interesting and minute account of their use." Whether this account was subsequently published I do not know. William N. Fenton's classic compendium provides information (1998:222) that "an official emblem of the title of each chief" took the form of an item that may have been a string of wampum. These "strings" of wampum thus form examples of wampum artifacts that fall within a category of items that were internally used for political and/or religious purposes that remains poorly known.

The "Beechtree-Webster wampum string" is not a single "string" of wampum but either a long string folded near the center or two joined "strings" that form what was called a "branch." Several strings tied together at one end might be called a "hand". Two web postings relating to the transfer of this object include a piece from the Rome, NY *Sentinel* and another from a publication of The Oneida Nation. Each includes various bits of undocumented or erroneous data, but both infer that this "string" had belonged to Chief Chrisjohn Beechtree (c. 1804-1869) and his family. What purpose it had served, and how it came to be the personal property of one member of his family is not explained. The Oneida Nation web posting states that a "Daniel [sic] Webster" sold it in 1907 to Mark Harrington for $5.84, a figure that suggests it was sold by the bead. Since an illustration suggests that this two-string "branch" included approximately 148 beads, black and white, perhaps the piece was sold at four cents per bead. The catalogue data at the American Museum of Natural History suggests that a small string of wampum, or perhaps a detached piece of the larger string, had also been part of this piece. Further study of the records is warranted.

An "Oneida" Belt?

The Field Museum of Natural History in Chicago holds an interesting band of wampum that is said to have been purchased from an Oneida owner. This example has been claimed for "repatriation" by the Oneida Indian Nation, Inc. of New York as well as by an Oneida group now in Wisconsin. Neither group has volunteered to share their petitions, or claims, with me (see Becker Ms. F). More recently an Onondaga group has joined the contest with their own claim as traditional keepers of the diplomatic wampum received by the Five Nations Iroquois. If this band at the Field Museum had been sold to a dealer by an Oneida, how that individual secured possession remains unknown. How any group let a single example "out of the wampum bag" also remains unknown. If this was an example of ornamental wampum, the owner would have had every right to sell it. If it represents a piece of diplomatic wampum, then the tribal group that presented it would have the strongest claim.

Discussion: A Focus on the Cuffs

One of the two most important pieces of information learned from studying five pieces of wampum held by the Oneida concerns their various origins. The "Beauchamp Cuffs" are revealed to have come from near Georgian Bay, Canada c. 1895. This region, once home of the Wendat (Huron), strongly suggests that they were made by the Wendat. Of the 13 known cuffs the Wendat are specifically identified as the makers of four, and probably six examples (see Table 1). Lainey notes that the the common belief is that the entire area of Old Huronia (*Wendake ehen*) was empty after the

Table 1. The "known" wampum cuffs (from Becker, in press B).

No.	Current Location	Description	Origin
1.	Oneida Indian Nation, Inc.: NY	28-row, 5 checked diamonds in a "V" formation	Georgian Bay, Canada Probably Huron
2.	Oneida Indian Nation, Inc.: NY	27-row, 9 open rectangles in a slash	Georgian Bay, Canada Probably Huron
3.	Musée d'histoire naturelle et d'ethnographie: Lille, France	A 28-row, stepped design (a linear 9-step "V" or "U" pattern)	French Canada (Huron?)
4.	Musée d'histoire naturelle et d'ethnographie: Lille, France	A 28-row band, identical to no. 3 above; suggests they are a pair	French Canada (Huron?)
5.	Musée du Quai Branly: Paris	25-row, stepped design of 2 parallel lines	Huron
6.	Musée du Quai Branly: Paris	24-Row, possibly a match to No. 5, above	Huron
7.	National Museum of the American Indian: Wash., DC	20-row, 7 checked diamonds in a "V"	Unknown origin
8.	National Museum of the American Indian: Wash., DC	25-row, 2 parallel zigzag lines	Probably Huron (Identified as "Iroquois" by an anonymous cataloguer)
9.	Canadian Museum of Civilization: Gatineau, Quebec	3 checked diamonds in a "V"	Huron
10.	Canadian Museum of Civilization: Gatineau, Quebec	5 checked diamonds in a "V"	Huron
11.	Currency Museum: Ottawa, Canada	7 checked diamonds in a "V" pattern	Unknown origin (possibly Huron)
12.	Time-Life Publication (actual location unknown)	28-row, 3 diamonds in a "V"	Unknown origin
13.	Peabody Museum: Harvard University, Cambridge, MA	20-row, 7 checked diamonds in a "V"	Misidentified as Penobscot, probably Huron

dispersal. This is a view that the Ojibway affirm, as at some point they began to occupy these lands (cf. Copway 1851). The present occupants, the Anishinaabe people, certainly propose that the Wendat had abandoned the region and have no claims to lands or supposedly sacred places. The idea of complete abandonment by the Wendat followed by the entry of another peoples appears too neat to be true.

I suggest that most of the Wendat were long gone from the Georgian Bay area by 1895, but that families or small groups of Wendat may not have left the area and that these people may have retained these bands. The possibility that in 1895 the three bands now held by the OIN were in the hands of members of another culture is possible. More likely these bands were held by traditionalists among the Wendat, who now are recognized as the only confirmed makers of this category of wampum band (Becker, in press B). By the latter half of the nineteenth century the ownership of wampum bands was passing from communal to private hands, as indicated by Chief Abram Hill's claims to the strings in his possession in 1878. The many sales of bands over the following decades reflects their lack of importance in the memories of the communities as well as the various individuals and families who once held them.

The second important finding is that both of the cuffs now at Oneida were constructed using only wampum beads, which I interpret as reflecting bands used only in diplomatic

contexts. Since no glass beads have been used in their construction, either intentionally or accidentally, this suggests that these bands were not purely decorative. Decorative wampum bands known from other contexts, such as the various Penobscot bias-woven "collars" (Becker Ms. E), all include glass and/or brass or copper beads as part of the construction. Wampum bands used in diplomatic contexts incorporate only wampum beads, although an accidental inclusion of a glass bead has been documented from some very large belts (Becker 2001a). This leads me to suggest that wampum cuffs may have been official badges of office, worn only as coat cuffs or gauntlets, perhaps by ritual or political leaders among the Wendat.

Diplomatic wampum belts generally were made specifically for presentation. The belt that Mr. Goodwin brought home from the Georgian Bay area along with the two cuffs that are the principal subject of this study of the Oneida holdings may have been secured from a single source. I believe that the source was a Wendat owner, but other possibilities have been noted above. Although the two cuffs probably were made by the Wendat, the long band appears to be typical belt made for formal presentation ("prestation") at a diplomatic meeting or treaty. If the five-slash belt from Georgian Bay was "held" by a Wendat or any other native, and since it is of the size generally used for moderately significant requests made at treaties, it most probably had been made and given to the recipients by one of the Five Nations Iroquois, or by a colonial government, or by one of the representatives of a governmental body, or by one of the Six Nations Iroquois groups. The important question remains—who made and presented this belt?

In the many surviving colonial documents wampum belts are usually noted at the end of a statement or request; where the scribe notes "A Belt" to indicate that the particular speaker at the treaty has made the presentation. A "small" belt, or even a string, is sometimes noted in association with a minor request, and a "large" belt may be noted after a very significant request has been made. In almost all cases the design elements, if any, are not described. Very few of the hundreds of diplomatic belts that are mentioned in treaty minutes are described well enough to allow us to match a surviving belt to a specific event. Most are noted only as "A Belt" to indicate that a belt had been presented at that point. The few belts that are described in detail are those generally noted as "A Large Belt" or as "A Belt of Seven Rows." The two belts now held by the Oneida Indian Nation are of a size that could be called "medium." Only in exceptional cases does the record allow us to know what the belt really looked like, and in even fewer cases can we match the description with a band that survives to this day. Establishing a date for the fabrication of any specific wampum artifact has not been achieved. Beads were recycled (Becker, in press A). The longer, straight drilled wampum appear to be later in date, but hand made beads that presumably were double drilled (from both ends) were being made right through the eighteenth century.

Studies of wampum continue to be an important part of understanding Oneida cultural history, and the history of each of the many cultures that interacted in interesting ways within the area that forms the present State of New York. Our slow progress towards answering some of our questions depends on the combined efforts of many people. The generous cooperation and shared interest of the Oneida Indian Nation in pursuing these goals and in furthering wampum research is deeply appreciated.[8]

Acknowledgements

My sincere thanks are due to Brian Patterson (Bear Clan; and President of the United South and Eastern Tribes) for his considerable efforts to establish procedures and to make arrangements for this study to be conducted. His important contribution to wampum studies has added an important link to our understanding of the entire history of wampum, and how it was used by the various native peoples during the centuries when it was one of the most vital commodities in the Northeast. The gracious help of Jesse Bergevin (Tribal Historian and Archaeologist, Oneida Indian Nation) is most gratefully acknowledged as is the help of Joseph Smith (Chief of Police, Oneida Indian Nation) and all the members of his staff. Their hospitality and many courtesies greatly facilitated this study.

As always, special thanks are due to Jonathan Lainey for his careful reading of this manuscript and his many useful comments. His suggestions and insights have contributed enormously to the development and focus of this research, and to wampum studies in general. Thanks also are due Kurt Jordan (Cornell University) and to Nina Versaggi for their careful reading and suggestions relating to earlier drafts of this paper. The kind assistance of Susan Fogel, George Hamell, Cath Oberholtzer, Martha Sempowski, John L. Steckley, Denise B. Tyler, and Laila Williamson (American Museum of Natural History) are also very much appreciated. Thanks also are due Deb Twigg (Director, Susquehanna River Archaeological Center) for her consider-

[8] In her prologue to *The Penobscot Dance of Resistance* (2004:7) P. MacDougall provides an extensive review of matters relating to "Indian politics." She asks, "What is the cost to the disciplines when academics are pressured by modern Indian politics? Clearly access to information is affected." She also quotes from James Axtell regarding scholars not bowing to political pressures. I am pleased to note that nowhere in my dealings with Brian Patterson and the Oneida Indian Nation was there any limit or restriction placed on my research. The most ideal academic situation was provided, setting the highest standards for conducting academic research.

able efforts in this particular study and help in understanding the prehistory of this general region. Her comments on an earlier draft of this manuscript are deeply appreciated. Thanks also are due Kevin McBride for numerous suggestions regarding the study of wampum in New England.

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Appendix A

Glossary of terms providing standardization for the description of wampum and artifacts that incorporate wampum in their construction (abstracted from Becker Ms. A).

Despite a long history of interest in wampum, and a recent resurgence in the study of these shell beads, no set of terms had been developed to refer to wampum bands or strings, to any of their component elements or for the designs that commonly appear on these objects, or for concepts that recently have been recognized. The following list is offered for describing design elements commonly found on traditional wampum bands, and for terms used in any discussion of wampum strings, bands, and related artifacts.

Band: Any "woven" artifact incorporating wampum beads in its construction, including ornamental strips, belts, and cuffs.

Bead: A small, drilled or pierced object used in ornamentation.

Belt: Any wampum band (q.v.) made and presented for political and/or ecclesiastical purposes.

Checkered (or Checked): Any decorative design on a wampum band in which the element is formed by beads of alternating colors, as distinct from a "solid" decorative element consisting of all beads of one color that contrast with the background.

Core Area: The region of the northeast occupied by the three horticultural confederacies (Huron, Five Nations, Susquehannock) within which wampum developed as an agent central to diplomatic interaction, and where wampum diplomacy largely superseded the ancient use of calumet rituals (Becker 2006b).

Cuff (of wampum): A trapezoidal band of wampum used among the Wendat (Huron), probably as badges of office during the nineteenth-century.

Diamond: Term applied to a design element with two sets of parallel sides, with a height greater than the width. These designs commonly are identified as a "lozenge motif" in the Canadian records.

File: Woven bands of wampum have beads strung end to end in files that run across the narrow width. with rows (q.v.) traversing the longer width.

"Fringe": A generic term applied to that portion of the warp lines of wampum bands that extend out beyond the beaded portion. A fringe may consist of simple or unadorned leather lines, lines that have been decorated in some fashion, lines that have been braided or twisted together with adjacent lines, or combinations of these treatments.

Lozenge: See "Diamond."

Open: A design element on a band of wampum formed by an outline, with at least part of the center composed of beads of the same color as the background.

Periphery: The region immediately surrounding the Core Area (q.v.), or zone where the foraging peoples were aware of wampum diplomacy, but employed it rarely and only when interacting with peoples living within the Core Area.

Row: In a wampum band, the series of shell (or other) beads that are positioned side by side in the "weaving." Wampum bands commonly are identified as being the width of a given number of rows, as in a "7-row" band.

References Cited

Barbeau, C. Marius

1956 Early Americana. *Canadian Geographical Journal* 53 (1):2-11.

Barnaskey, Merry

1995 Bill of Sale (to the Oneida Indian Nation: one wampum belt and two gauntlets/cuffs). June 1 at Oneida, New York. Copy on File, Becker Archives at West Chester University of Pennsylvania.

Beauchamp, William M.

1879 Wampum belts of the Six Nations. *The American Antiquarian* 2 (3):228-230.

1898 Wampum Used in Council and as Currency. *The American Antiquarian and Oriental Journal* 20 (1) :1-13.

1901 *Wampum and Shell Articles Used by the New York State Indians*. New York State Museum Bulletin 41, Volume 8. University of the State of New York, Albany.

1916 (Arranger and Editor) *Moravian Journals Relating to Central New York 1745-1766*. Dehler Press, Syracuse [Reprinted 1976 by AMS Press, New York].

Becker, Marshall Joseph

1980 Wampum: The Development of an Early American Currency. *Bulletin of the Archaeological Society of New Jersey* 36:1-11.

1997 European Museum Collections of North American Ethnographic Materials: The Vatican Museum Holdings. *Bulletin of the Archaeological Society of New Jersey* 52:28-32.

2001a The Vatican Wampum Belt: An 1831 Example of an "Ecclesiatical-Convert" Belt and a Typology and Chronology of Wampum Belt Use. *Bollettino–Monumenti, Musei e Gallerie Pontificie* XXI:363-411.

2001b Native American Indian Artifacts in the Ethnographic Museum, Florence, Italy: A Translation from Bushnell's Italian Paper of 1905 Plus Notes on Recent Additions from the American Northeast. *Bulletin of the Archaeological Society of New Jersey* 56:61-65.

2002 A Wampum Belt Chronology: Origins to Modern Times. *Northeastern Anthropology* 63:49-70.

2004a A Penobscot Wampum Belt in the Vatican Museums: A Possible Nineteenth Century Example of Native American Diplomacy. *Bollettino–Monumenti, Musei e Gallerie Pontificie* XXIV:225-270.

2004b Review of *The Oneida Creation Story* (2000), by Demus Elm and Harvey Antone, edited by Floyd G. Lounsbury and Bryan Gick. *Journal of American Folklore* 117:117-119.

2005 Wampum used by Lenape and Swedes in Colonial America: A tale of sex and violence involving 'decorative' belts of wampum. *Newsletter of the Archaeological Society of New Jersey* 208 (March):1-4.

2006a Foragers in Southern New England: Correlating Social Systems, Maize Production and Wampum Use. *Bulletin of the Archaeological Society of Connecticut* 68:75-107.

2006b The Vatican 1831 Wampum Belt: Cultural Origins of An Important American Indian Artifact and its Meaning as the Last "Ecclesiastical Convert" Belt. *Bulletin of the Archaeological Society of New Jersey* 61:79-134.

2007 Studying Wampum: A Visit to the Oneida Indian Nation. *Newsletter of the Susquehanna River Archaeological Center* 3 (3):1-3, 6.

In press A Small Wampum Belts. *Material Culture* 40 (2008).

In press B Wampum Cuffs. *Material Culture Review* 66 (2007).

Ms. A A History of Wampum Use Together with a Catalogue of All Known Surviving Examples. Manuscript on file, West Chester University of Pennsylvania.

Ms. B Lenape Use of Wampum as Reflected in the Life of Sassoonan: Variations in the Customs of Peoples Living on the Fringe. Manuscript on file, West Chester University of Pennsylvania.

Ms. C Notes on the Wampum Held by the Museum of the American Indian–Heye Foundation. Data collected regarding holdings prior to their transfer to The Museum of the American Indian, Washington, DC. Manuscript on file, West Chester University of Pennsylvania.

Ms. D Wampum Crowns and Cuffs: Two Categories of Bands Rarely Noted in the Literature. Manuscript on file, West Chester University of Pennsylvania.

Ms. E Penobscot Wampum Bands in Florence, Italy: Two examples of bias-woven ornamental collars. Manuscript on file, West Chester University of Pennsylvania.

Ms. F A Field Museum Wampum Belt Possibly Secured from an Oneida. Manuscript on file, West Chester University of Pennsylvania.

Bushnell, David I.
1920 *Native Cemeteries and Forms of Burial East of the Mississippi*. Bulletin 71. Bureau of American Ethnology, Smithsonian Institution, Washington, DC.

Campisi, Jack
1988 The Oneida Treaty Period, 1783-1838. In *The Oneida Indian Experience: Two Perspectives*, edited by Jack Campisi and Laurence Hauptman, pp 48-65. Syracuse University Press, Syracuse.

Campisi, Jack and Laurence M. Hauptman
1981 Talking Back: The Oneida Language and Folklore Project, 1938-1941. *Proceedings of the American Philosophical Society* 125 (6):441-448.

Campisi, Jack and Laurence M. Hauptman (editors)
1988 *The Oneida Indian Experience: Two Perspectives*. Syracuse University Press, Syracuse.

Ceci, Lynn
1985 Shell Bead Evidence from Archaeological Sites in the Seneca Region of New York State. Paper presented at the Annual Conference on Iroquois Research (October 11-13), Rensselaerville, NY.

1989 Tracing Wampum's Origins: Shell Bead Evidence from Archaeological Sites in Western and Coastal New York. Proceedings of the 1986 Shell Bead Conference: Selected Papers, edited by Charles F. Hayes III, pp. 63-80. Research Records No. 20, Research Division, Rochester Museum & Science Center. Rochester, NY.

Copway, George
1851 *The Traditional History and Characteristic Sketches of the Ojibway Nation. By G. Copway (Kah-go-go-gah-bowh), chief of the Ojibway Nation*. B. F. Mussey, Boston.

Elm, Demus and Harvey Antone
2000 *The Oneida Creation Story*. Translated and edited by Floyd G. Lounsbury and Bryan Gick. University of Nebraska Press, Lincoln.

Feest, Christian F.
1983 "10. Wampum Belt." In Tradescant's Rarities: Essays on the Foundation of the Ashmolean Museum, edited by Arthur MacGregor, pp. 121-123. Clarendon Press, Oxford.

Fenton, William N.
1998 *The Great Law and the Longhouse: A Political History of the Iroquois*. University of Oklahoma Press, Norman.

Folts, James D.
1999 Before the Dispersal: Records of New York's Official Relations with the Oneidas and Other Indian Nations. In *The Oneida Indian Journey: from New York to Wisconsin*, edited by Laurence M. Hauptman and L. Gordon McLester III, pp. 151-170. University of Wisconsin Press, Madison.

Frederick, Charles and David Zeisberger,
1916 Diary of a Journey to Onondaga, Residence There, and Return from Thence, by the Moravian Brethren, from June 9, 1754 to June 4, 1755. In *Moravian Journals Relating to Central New York 1745-1766*, arranged and edited by William M. Beauchamp for the Onondaga Historical Association. Dehler Press, Syracuse [Reprinted in 1976 by AMS Press, New York].

Gill, David
1997 Sotheby's, sleaze and subterfuge: Inside the antiquities trade. Review article of *Sotheby's: Inside Story* (1997) by Peter Watson. *Antiquity* 71:468-471.

Hale, Horatio
1897 Four Huron Wampum Records: A Study of Aboriginal American History and Mnemonic Symbols. *Journal of the Anthropological Institute of Great Britain and Ireland* 26:221-247.

Hammond, Whitney Luna M.
1872 History of Madison County, State of New York. Truair, Smith & Co. Syracuse, New York

Hamy, E. T.
1897 Galerie Américaine du Musée d'Ethnographie du Trocadéro. Choix de Pièces Archéologiques et Ethnographiques, Décrites et Publiées par Le Dr. E.-T. Hamy. Two volumes. Ernest Leroux, Éditeur, Paris.

Harrington, Mark R.
1907 Field Notes: June–October 1907. Papers of Mark Raymond Harrington, OC 151, Archives of the Museum of the American Indian, Suitland, MD. (Chief Rockwell n.d. bII C5 f1).

Hauptman, Laurence M.
1999 The Oneida Nation: A Composite Portrait, 1784-1816. In *The Oneida Indian Journey: from New York to Wisconsin*, edited by Laurence M. Hauptman and L. Gordon McLester III, pp. 19-37. University of Wisconsin Press, Madison.

Hauptman, Laurence M. and L. Gordon McLester III (editors)
1999 *The Oneida Indian Journey: from New York to Wisconsin*. University of Wisconsin Press, Madison.

2006 *The Oneida Indians in the Age of Allotment, 1860-1920*. University of Oklahoma Press, Norman.

Holmes, William H.
1883 Art in Shell of the Ancient Americans. In *The Second Annual Report of the Bureau of Ethnology*, pp. 179-305. Smithsonian Institution, Washington, DC.

Jacobs, Wilbur R.
1949 Wampum: The Protocol of Indian Diplomacy. *William and Mary Quarterly* (3rd series) 6 (4):596-604.

1950 *Diplomacy and Indian Gifts; Anglo-French Rivalry Along the Ohio and Northwest Frontiers*, 1748-1763. Stanford University Press, Stanford, California.

Krumrine, Christina
1995 Wampum Belt and Two Arm Gauntlets. Conservation evaluation, prepared at 41 Union Square West, Room 206, New York, NY. Copy on file, Becker Archives at West Chester University of Pennsylvania.

Lainey, Jonathan
2004 *La "Monnaie des Sauvages": Les colliers de wampum d'hier à aujourd'hui*. Septentrion, Quebec.

MacDougall, Pauleena
2004 *Penobscot Dance of Resistance: Tradition in the History of a People*. University of New Hampshire Press, Durham, NH.

McBride, Kevin A.
1993 "Ancient and Crazie": Pequot Lifeways during the Historic Period. In *Algonkians of New England: Past and Present*, edited by Peter Barnes, p. 63-75. Boston University Press, Boston.

Michelson, E. Kain and Mercy A. Doxtater
2002 Oneida-English/English-Oneida Dictionary. University of Toronto Press, Toronto.

Michelson, Gunther
1991 Iroquoian Terms for Wampum. *International Journal of American Linguistics* 57 (1):108-116.

Morgan, Lewis Henry
1852 *Fifth Annual Report of the Regents of the University of New York on the Condition of the New York State Cabinet of Natural History*. Albany, New York.

New York [State] Assembly
1889 Oneida Treaties. In *Report of [the] Special Committee Appointed by the Assembly of 1888 to Investigate the Indian Problem of the State*. Assembly Document 51, pp. 234-365. Albany. [New York State Library Cat. No. E78 N7 N77 1977; copy on file in Becker Archives, West Chester University of Pennsylvania].

Oneida Elders
1999 Stories of the Oneida Language and Folklore Project, 1938-1941. In *The Oneida Indian Journey: from New York to Wisconsin*, edited by Laurence M. Hauptman and L. Gordon McLester III, pp. 110-125. University of Wisconsin Pr:ss, Madison.

Oneida Indian Nation
nd Collections and Holdings of the OIN in the Archive Vault. Shelf Unit D, 16. Barnaskey Wampum Belts and Gauntlets [Printout 1 page]. Copy on file in Becker Archives at West Chester University of Pennsylvania.

Pratt, Peter P.
1961 *Oneida Iroquois Glass Trade Bead Sequence: 1585-1745*. Onondaga Printing Company, Syracuse. Distributed by the Fort Stanwix Museum, Rome NY.

1976 *Archaeology of the Oneida Iroquois*, Volume I. Man in the Northeast. Occasional Publications in Northeastern, Anthropology, No. 1, George's Mills, NH.

Shatttuck, George C.
1991 *The Oneida Land Claims: A Legal History*. Syracuse Universit Press, Syracuse.

Snyderman, George S.
1961 The Function of Wampum in Iroquois Religion. *Proceedings of the American Philosophical Society* 105:571-608.

Speck, Frank G.
1911 A Visit to the Penobscot Indians. *Museum Journal* [Philadelphia] 2 (1):21-26, Figs. 16-20.

1919 The Function of Wampum Among the Eastern Algonkian. *Memoirs of the American Anthropological Association* 6:3-71.

1929 Wampum Collection. Catalogue, January 1929: F. G. Speck's Wampum Collection [at the MAI]. Typescript copy with handwritten insertions on letterhead of the Museum of the American Indian, New York, New York.

Steckley, John L.
2007 *Words of the Huron*. Wilfrid Laurier University Press, Waterloo, Ontario.

Watson, Peter
1997 *Sotheby's: Inside Story*. Bloomsbury, London.

Whipple Report (see under New York [State] Assembly)

Wonderley, Anthony
2004 *Oneida Indian Folklore, Myth, and History: New York Oral Narratives from the Notes of H. E. Allen and Others*. Syracuse University Press, Syracuse.

2006 Archaeological Research at the Oneida Vaillancourt Site. *The Bulletin*, Journal of the New York State Archaeological Association 122:1-26.

Woodward, Asbell
1880 Wampum: A paper presented to the Numismatic and Antiquarian Society of Philadelphia. Second edition [56 pages]. J. Munsell, Albany (reprint of the 62 page edition of 1878).

Middle and Early Late Woodland Pottery from the Sterling Site, Oneida County, New York

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Potsherds excavated in 1966 are described and related to a specialist literature in flux: the study of pre-Iroquoian ceramics. Based on comparative chronometric data only recently available, we suggest the material indicates human presence at the southeast corner of Oneida Lake over the course of perhaps 1500 years.

This article documents a small ceramic collection from the east end of Oneida Lake (Figure 1: inset) representative of a time span traditionally known in New York archaeology as the Middle Woodland period (approximately the first millennium of the Christian era) and the Early Late Woodland period (roughly 1000-1300). Our modest aims are to describe and estimate the age of some potsherds toward the goal of building chronology. We hope to flesh out the local sequence in the Oneida Iroquois heartland, a region in which archaeological antecedents to Oneida horticultural villages around 1450 remain unclear (Pratt 1976; Wonderley 2006). In a larger sense, we begin to fill in what has remained a blank zone around which Middle and Early Late Woodland materials have been documented to the east (for example, Funk 1976; Ritchie and Funk 1973:123-153), to the south (Funk 1993; Whitney and Gibson 1972), and to the west (Ritchie 1946; Ritchie and Funk 1973:154-164; Ritchie and MacNeish 1949:118).

Terms such as "Middle Woodland" imply a commonly accepted body of knowledge and interpretive outlook. That, however, does not seem to be the case today. Such culture-historical verities as phase and type are increasingly problematic in the pre-Iroquoian archaeology of New York. At the same time, no consensus apparently has emerged to help us think about what was going on or to guide our ceramic studies. In surveying the scholarly literature necessary for understanding our material, we struggled to arrive at our own separate peace with this unsettled field. The result—a brief ceramic review of a crucial time span—may be of interest to others.

The Sterling Site and Alan Sterling's Dig

Today owned by the Oneida Indian Nation, the Sterling Site (New York State Museum site #660) is located 1.3 km (0.8 mi) southeast of Oneida Lake and 10.1 km (6.3 mi) northwest of the present city of Oneida. Situated in the Great Lakes Section of the Central Lowland Province, it has been widely known as an archaeological locus since at least the close of the nineteenth century (Beauchamp 1900:110). The site zone comprises land immediately bordering Oneida Creek over perhaps 3 km of its meandering length. The east bank in the present Town of Verona is particularly rich in archaeological remains. To judge by projectile point styles thought to be diagnostic, native people have used this locale, probably as a seasonal fishing station, since at least about 6000 B.C. (Kerber and Henry 1998:33).

Investigating the prehistory of his family farm in November of 1966, teenager Alan Sterling excavated at a bend in Oneida Creek known to be the most productive portion of the Sterling Site (both for fishing and for artifacts). Sterling found the pottery described here and, on one particular day (November 20), he encountered a notable concentration of sherds at a depth of two-to-three feet. The context, as Sterling noted in his journal, probably was a pit. Over the years, Sterling preserved this material and kept it separate from other sherds found nearby. Today, the finds of that long-ago November day are identifiable as a probable deposit of the Owasco ceramic tradition (see below).

Ceramic Description

The Sterling sherds manifest forms of decoration that were pressed or stamped, rather than incised, into the wet clay. Such embellishment mostly consists of "cord impressions," that is, patterns of parallel lines apparently produced by pressing a cord-wrapped stick or, in some cases, the edge of a cord-wrapped paddle, into the clay. There are also a fair number of lines composed of small, rectangular holes called dentate impressions. These may have been made by "an object having teeth about 1/16 to 3/16 in wide," though how, exactly, the technique was accomplished "is difficult to envisage" (Ritchie and MacNeish 1949:100,102). Finally, there are distinctive zigzag lines called rocker-stamping, most of which were impressed by some kind of curved and serrated (that is, dentate) tool.

The 86 sherds are of brown-to orange complexion and average about 0.8 cm in thickness (range: 0.4-1.3 cm). The tempering appears to be grit or sand. The thicker sherds tend

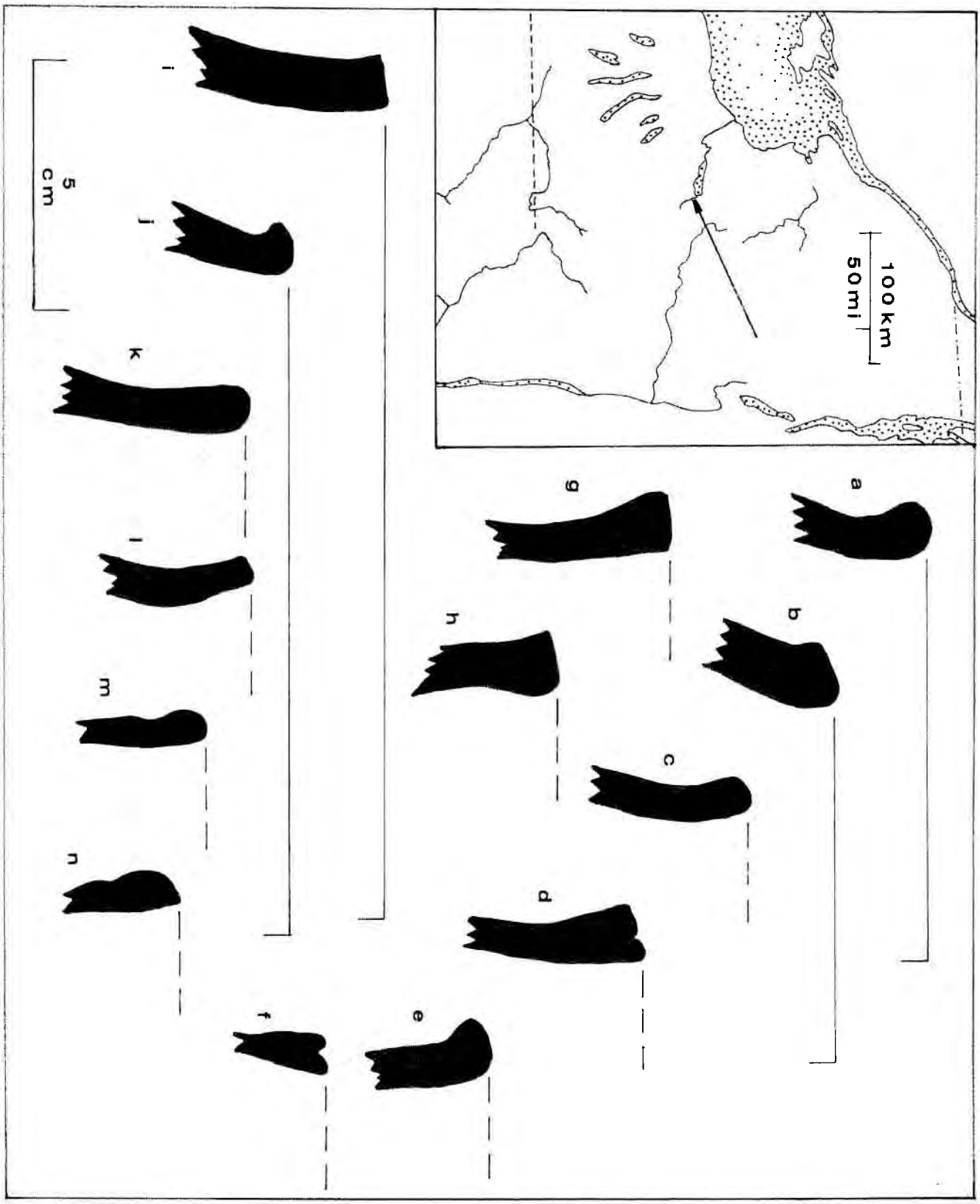

Figure 1. Rimsherds from the Sterling Site. Inset map: location of the Sterling Site in east-central New York. a-h) Silhouettes of rimsherds from Sterling thought to belong to the Owasco ceramic tradition. i-n) Silhouettes of Sterling rimsherds attributed to the Point Peninsula ceramic tradition. A solid line to the right indicates the radius of a measured rim diameter.

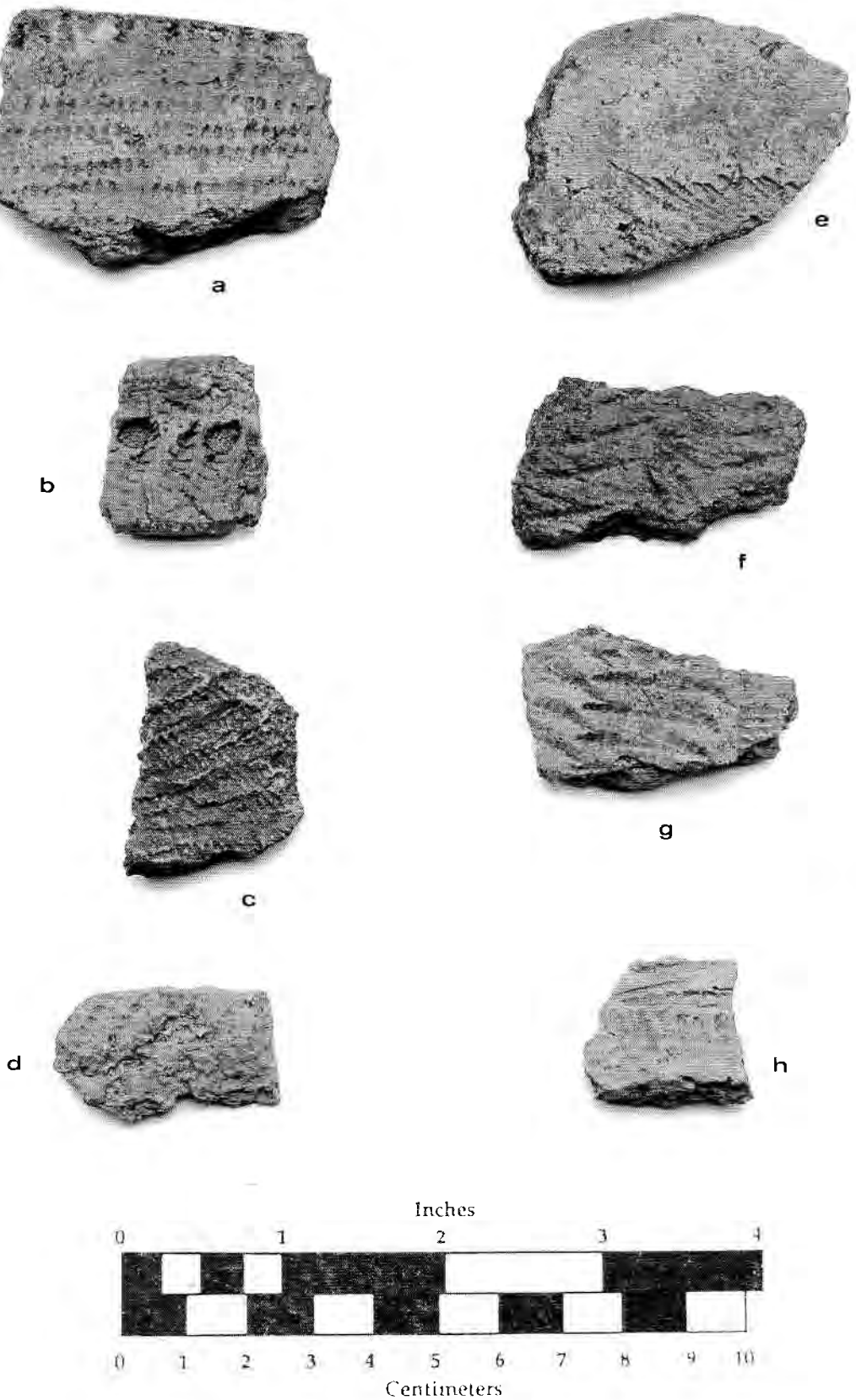

Figure 2 Sherds (exteriors) from the Sterling Site. a) rim classified as Point Peninsula Corded after Ritchie 1980: Plate 85 (see also Figure 1i); b) rim classified as Wickham Corded Punctate (see also Figure 1e); c) rim classified as Point Peninsula Corded (see also Figure 1k); d) rim classified as Jack's Reef Dentate Collar (see also Figure 1m); e) body classified as Point Peninsula Rocker Stamped; f) body classified as Carpenter Brook Cord on Cord; g) body classified as Point Peninsula Rocker Stamped, dentate variety; h) untyped body displaying cord-wrapped stick impressions over smoothed surface.

to be more porous and to contain larger inclusions. Macroscopically, one can sometimes sense traces of lamellar structure and one sherd hints of incompletely smoothed coils. In truth, however, we are hard put to identify either coiled or paddle-and-anvil methods of construction in this sample.

Rimsherds (Figure 1a-n), numbering 27, range from slightly everted or outflaring (n = 19) to straight or vertical in silhouette (n = 6). One slopes inward and another is of indeterminate outline. A single rim is fitted with a low collar (Figures 1n, 2d). Four diameter readings are 14, 16, 26, and 32 cm. Most lips (n = 19) are flat, many thickened exteriorly (13) or interiorly (2) or both (n = 1). Seven lips are rounded and one is indeterminate.

Lip elaboration consists of a circumferential groove or channel (n = 5; two grooves are cord-impressed, one is a row of punctuates), or parallel lines of cord-wrapped stick impressions (n = 5) or fingernail impressions (n = 1) laid across the top plane of the lip. The exterior of one lip was notched with fingernail impressions.

Interiors are smooth. Only one shows evidence of channeling, that is, "groups of parallel striae, of varying breadths and depths" that were "produced by a scraping tool used to finish off the interior surface" (Ritchie 1980:213). Ten carry parallel lines of cord-wrapped stick or dentate (n = 1) impressions beneath the rim. Nine are obliquely oriented to the right, one is vertical.

The exteriors of seventeen rimsherds appear to have been smoothed. Thirteen display lines of cord or dentate (the latter, a single example). Most linear decoration (n = 9) is oriented obliquely to the right (Figure 2c) although left oblique, vertical, and vertical above horizontal (Figure 2a) are also present. Two have an apparent row of shallow, relatively large (0.3-0.6 cm across) and coarsely rectangular punctuations encircling the vessel 1-1.5 cm below the lip (Figure 2b). One rim has a row of crescent-shaped impressions and two have circumferential grooves beneath the lip. The latter look like Iroquois sherds of very different (and later) style.

Of the other exterior surfaces, two carry all-over cord impressions in herringbone or oblique pattern, three are cord-malleated (roughened), and five are too eroded to be certain about any surface treatment.

Bodysherds, numbering 59, are interiorly smoothed (n = 52). Three of these display some evidence of channeling and one manifests parallel lines of corded-stick impression. Two bodysherds are completely channeled, one is unsmoothed (a rounded base—the only basal termination in our sample), and four are eroded.

Exterior surfaces of bodysherds are smoothed (n = 29), cord-malleated (n = 26), or eroded (n = 3). Of the smoothed examples, eight bear lines of cord-wrapped stick impressions (Figure 2h), five have dentate lines, and eight are rocker-stamped (see Figure 2g—all but one [Figure 2e] with dentate impressions). Of the cord-malleated exteriors, seven were further embellished with corded stick impressions in parallel lines or in a herringbone pattern (Figure 2f). One cord-malleated surface has a possible x-shaped incised design that, if really the work of an ancient potter, is shallow and crude-looking (but is not the decoration designated as Kipp Island Crisscross).

Point Peninsula and Owasco Traditions at the Sterling Site

The Sterling Site pottery belongs to the Point Peninsula and Owasco "cultures" or ceramic traditions as defined by William Ritchie and Richard MacNeish in 1949. Each tradition was believed to have a normative cultural reality—that is, the two kinds of pottery manifested stylistic and technological decisions made consistently and repeatedly by two sets of potters.

The cultural distinctions were thought to carry temporal significance. Stylistic changes within Point Peninsula were discernible through different stratigraphic layers and Owasco sherds occurred in greatest frequency in the highest levels (see for example, Ritchie 1946:6-7). Further, a number of sites with "pure" Owasco ceramic assemblages existed elsewhere. The most parsimonious explanation was that Owasco pottery was later in time than Point Peninsula pottery. The Point Peninsula tradition was defined, in central New York, as comprising the sequent Canoe Point, Kipp Island, and Hunter's Home phases (roughly A.D. 1-1000). It was followed by the Owasco tradition also composed of three phases: Carpenter Brook, Canandaigua, and Castle Creek (approximately 1000-1300).[1] Ritchie and Robert Funk (1973:354-356) saw the relationship between the traditions as one of continuous development, the change occurring during the Hunter's Home phase, c. A.D. 900-1000—a seamless period of transition from Middle into Late Woodland times (see also Funk 1993:206-207 and Ritchie 1980:253-266).

Today the existence of Hunter's Home phase, with pottery evolving from one tradition into the other, is questioned (Hart and Brumbach 2005; Snow 1995), in part because mixture of Point Peninsula and Owasco materials increasingly seems like the norm, at least in the central New York sites that were home to the original recognition of

[1]This is what we might expect to find in central New York. One could also take into account the Fox Creek phase, known to occur further east (Funk 1993) and the Squawkie Hill phase, an apparent description of burials dating to the Canoe Point phase (Snow 1984:245).

Point Peninsula. Several Owasco sherds in apparent Point Peninsula context are now chronometrically placed in the fifth through eighth centuries of the Christian era (Hart and Brumbach 2005; Schulenberg 2002). These new dates imply that types of the Owasco tradition were contemporaneous with types of the Point Peninsula tradition for a long time, possibly as much as 600 years (Hart and Brumbach 2005:14). What can such an overlap possibly mean?

It might mean there are depositional or site-formation factors at play in central New York sites of which we are unaware. Or it may be, as Hart and Brumbach (2003:749-750) suggest, that the problem inheres in our own thinking which limits our conceptualizing abilities to vapid, culture-historical pigeon-holing. Another possibility is that, in the admixture, we witness the residue of two contemporaneous groups of potters, apparently distinct ethnic groups co-existing in some fashion throughout much of Middle Woodland times. Assuming such contemporaneity had a proximate beginning, should we imagine the arrival of proto-Iroquoian-speakers in a world peopled by proto-Algonquian-speakers (Snow 1995, 1996)? Finally, it may be that we are, after all, seeing a developmental continuum within the Point Peninsula ceramic tradition. Gates St-Pierre (2001b), for one, strongly reaffirms the genetic relationship proposed by Ritchie: a clear continuum of development from Point Peninsula into Owasco is discernible in both technology and style.

Purely as an exercise in sorting sherds, the two ceramic traditions are distinguishable by several criteria. Most fundamentally, vessels of the Point Peninsula tradition tend to carry specific kinds of stamped decoration (corded implement, dentate, rocker) exteriorly applied to a smooth surface. Owasco-tradition vessels, in contrast, feature stamping from a cord-wrapped implement over a cord-malleated exterior surface (Ritchie 1980:213,291; Ritchie and MacNeish 1949:100,107).[2]

Alan Sterling excavated and preserved a contrast along these lines at the Sterling Site. The material he suspected to be from a pit turns out to be of the Owasco ceramic tradition.[3] Most bodysherds from this context are cord-malleated (20 of 29, overall 20 of the 26 malleated examples derive from here) and the two classifiable rimsherds bespeak Owasco affiliation (see below: Carpenter Brook Cord on Cord and Owasco Corded Oblique). The impression of a largely unmixed Owasco presence is strengthened by the presence of Levanna projectile points present only in this context. Thus, our little pottery sample recapitulates the fundamental uncertainty of the local Middle Woodland-early Late Woodland ceramic traditions: an isolatable Owasco category contrasts with a mixed bag of apparent Point Peninsula and Owasco sherds.

[2]Another trait used to distinguish the traditions is flat (Owasco) as opposed to rounded lips (Rieth 1997:108,113), a distinction that does not emerge with any clarity from our small sample (compare, for example, silhouettes of Owasco rims [Figure 1a-f] to those we suppose are Point Peninsula [Figure 1i-n]) Additionally, Point Peninsula vessels are said to be smaller than those of Owasco (Ritchie 1980: 213, 291). In our sample, the two largest orifices (26 and 32 cm) derived from Point Peninsula rims Smaller diameter readings (14, 16 cm) were measured from Owasco sherds.

[3]Attempting to chronometrically date this Owasco-tradition pottery, two bone fragments (mammal, probably deer) recovered with the ceramics were submitted to Beta Analytic (AMS dating). The first (Beta #220178) returned a conventional radiocarbon age of 110± 40 B P, or the year 1840 more or less Processing of the second sample was discontinued when we were cautioned that it had a depleted $C^{13/12}$ ratio (-22.4, beyond the normal range of -9 to -21), which might result in an age-reading that is too recent. Presumably that is what occurred with the first sample characterized by much the same $C^{13/12}$ value (-21.3). The depleted ratios of the Sterling Site bones could have been caused by any number of factors including disease or starvation of the animal, cooking or heating the animal's bones, or exogenous carbon compounds in the surrounding soil.

Types and Dating the Types

The landmark paper by Ritchie and MacNeish (1949) distinguished the two ceramic traditions by defining their constituent types—that is, descriptions of recurrent combinations of surface treatment and upper vessel shape. Those authors believed their typological classifications would contribute to the refinement of chronology and expedite comparisons with "other major ceramic manifestations" (Ritchie and MacNeish 1949:97).

Today, the Ritchie-MacNeish types are seen as static and essentially closed units of analysis which "have proved to be a poor methodological instrument for the measurement of cultural variability, cultural interaction, and culture change" (Gates-St. Pierre 2001a:49). Ceramicists dealing with this general era in the Northeast base their analyses on attributes keyed to their proximate data. Further, they couch their findings in a language of tendency and emphasis rather than, say, presence or absence. Commonly emerging from such a research orientation is the view that the past was peopled by small, mobile groups whose ceramic habits and practices are detectible as clinal phenomena rather than as tightly bounded entities (Hart and Brumbach 2005:15; Moran 2001). One ends up with sets of networks continuously interacting with and intergrading into each other (Hart 1999:25). To emphasize the existence of stylistic preferences characteristic of a particular region's population over time, other analysts resuscitate the concept of the ceramic tradition (for example, Chapdelaine 1995; Gates-St. Pierre 2001a).

We attempted to identify Sterling sherds as Ritchie-MacNeish types in order to relate them to dated sherds clas-

sified in that format. These latter, mentioned above (Hart and Brumbach 2005; Schulenberg 2002), furnished the chronometric data (AMS) implying substantial overlap of Owasco and Point Peninsula pottery. After classifying sixteen of the Sterling rimsherds from the descriptions of Ritchie and MacNeish (1949), we added in seventeen bodysherds whose surface treatments seem typologically diagnostic. The total count by type is as follows (see Tables 1 and 2).

The comparative AMS dates imply that two of the Point Peninsula types are, as Ritchie and MacNeish suspected, very old. Four assays place Point Peninsula Rocker Stamped in the fourth–third centuries B.C. One reading from Vinette Dentate is about 40 B.C. Point Peninsula Corded has seven dates ranging from about A.D. 255 to 740.

For the Owasco ceramic tradition, the types Carpenter Brook Cord on Cord and Wickham Corded Punctate furnish dates ranging from approximately A.D. 480 to 722 (four of six readings cluster around the year 700). Owasco Herringbone has a mid-seventh-century date and Owasco Corded Horizontal has one from the mid-eighth century. Several dates on Owasco Corded Oblique range from the mid-seventh to the mid-twelfth centuries (Hart and Brumbach 2005:8; Schulenberg 2002:163).

Thus, based on recently available dating information, we conclude the Sterling Site ceramics probably span a considerable length of time embracing the Middle Woodland and, in all likelihood, a portion of the Early Late Woodland time period: very roughly 300 B.C. to A.D. 1200.

Table 1. Point Peninsula Ceramic Tradition (n = 17).

	No.	Figure
Point Peninsula Rocker Stamped	7	(Figure 2e,g)
Point Peninsula Corded	4	(Figure 2a,c)
Vinette Dentate	4	
Point Peninsula Plain	1	
Jack's Reef Dentate Collar	1	(Figure 2d)

Table 2. Owasco Ceramic Tradition (n = 16).

	No.	Figure
Owasco Corded Horizontal	6	
Owasco Herringbone	1	
Owasco Corded Oblique	2	
Carpenter Brook Cord on Cord	4	(Figure 2f)
Wickham Corded Punctate	2	(Figure 2b)
Levanna Cord on Cord	1	

References Cited

Beauchamp, William M.
1900 *Aboriginal Occupations of New York*. New York State Museum Bulletin 55. State University of New York, Albany.

Chapdelaine, Claude
1995 An Early Late Woodland Pottery Sequence East of Lac Saint-Pierre: Definition, Chronology, and Cultural Affiliation. *Northeast Anthropology* 49:77-95.

Funk, Robert E.
1976 *Recent Contributions to Hudson Valley Prehistory*. New York State Museum Memoir 22. State Education Department, Albany.

1993 *Archaeological Investigations in the Upper Susquehanna Valley, New York State*, Vol. 1. Persimmon Press, Buffalo.

Gates St-Pierre, Christian
2001a The Melocheville Tradition: Late Middle Woodland Ceramic Production in Southern Quebec. In *A Collection of Papers Presented at the 33rd Annual Meeting of the Canadian Archaeological Association*, edited by Jean-Luc Pilon, Michael W. Kirby, and Caroline Thériault, pp. 48-71. Online at Ontario Archaeological Society, Toronto.

2001b Two Sites but Two Phases? Revisiting Kipp Island and Hunter's Home. *Northeast Anthropology* 62:31-53.

Hart, John P.
1999 Another Look at "Clemson's Island." *Northeast Anthropology* 57:19-26.

Hart, John P. and Hetty Jo Brumbach.
2003 The Death of Owasco. *American Antiquity* 68:737-752.

2005 Cooking Residues, AMS Dates, and the Middle-to-Late Woodland Transition in Central New York. *Northeast Anthropology* 69:1-34.

Kerber, Jordan, E. and Dixie L. Henry, editors
1998 *Archaeological Investigations in Central New York: Colgate University Field Methods Project*, Vol. 1, by the Students of SOAN 353, Fall Semester. Department of Anthropology, Colgate University, Hamilton, New York.

Moran, Eugène
2001 Early Late Woodland Social Interaction in the St. Lawrence River Valley. *Archaeology of Eastern North America* 29: 65-100.

Pratt, Peter P.
1976 *Archaeology of the Oneida Iroquois*, Vol. 1. Occasional Publications in Northeastern Anthropology 1. George's Mills, New Hampshire.

Rieth, Christina Barbara
1997 *Culture Contact during the Carpenter Brook Phase: A Tripartite Approach to the Study of the Spatial and Temporal Movement of Early Iroquoian Groups throughout the Upper Susquehanna River Valley*. Ph.D. dissertation, State University of New York, Albany.

Ritchie, William A.
1946 *A Stratified Prehistoric Site at Brewerton, New York*. New York State Archaeological Association, Researches and Transactions 11(1). Rochester.

1980 *The Archaeology of New York State*. 2nd rev. ed. Harbor Hill Books, Harrison, New York.

Ritchie, William A. and Robert E. Funk
1973 *Aboriginal Settlement Patterns in the Northeast*. New York State Museum & Science Service Memoir 20. State Education Department, Albany.

Ritchie, William A. and Richard S. MacNeish
1949 The Pre-Iroquoian Pottery of New York State. *American Antiquity* 15:97-124.

Schulenberg, Janet K.
2002 Dates for Owasco Pots. In *Northeast Subsistence-Settlement Change: A.D. 700-1300*, edited by John P. Hart and Christina B. Rieth, pp. 153-165. New York State Museum Bulletin 496. State Education Department, Albany.

Snow, Dean R.
1984 Iroquois Prehistory. In *Extending the Rafters: Interdisciplinary Approaches to Iroquoian Studies*, edited by Michael K. Foster, Jack Campisi, and Marianne Mithun, pp. 237-257. State University of New York Press, Albany.

1995 Migration in Prehistory: The Northern Iroquoian Case. *American Antiquity* 60:59-79.

1996 More on Migration in Prehistory: Accommodating New Evidence in the Northern Iroquoian Case. *American Antiquity* 61: 791-796.

Whitney, Theodore and Stanford Gibson
1972 The White Site, Nbn 2-3. *Chenango Chapter Bulletin* 13(2). Norwich, New York.

Wonderley, Anthony
2006 Archaeological Research at the Oneida Vaillancourt Site. *The Bulletin*, Journal of the New York State Archaeological Association 122:1-26.

The Catskill I and II Sites: Two Early Late Prehistoric Upland Camps in Eastern New York

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Excavations were conducted at the Catskill I and II Sites in Greene County, New York. This work revealed stratified soils that produced artifacts dating to the Early Late Prehistoric (A.D. 700-1300). The data derived during this excavation provide important insights into the settlement and land use practices of these populations. This information is important to understanding the prehistory of the region and looking at prehistoric activity beyond village boundaries.

Introduction

Studies of Early Late Prehistoric (A.D. 700-1300) villages and base camps have dominated the archaeological literature of the twentieth century (Funk 1976; Ritchie 1994; Ritchie and Funk 1973; Tuck 1971). Although the large data sets produced by these sites have made them ideal units of analysis, the focus on larger settlements has overemphasized their role in regional settlement and subsistence systems (Engelbrecht 2003; Rieth and Horton 2004). While it may be true that agricultural pursuits were labor intensive, they were only part of the seasonal round, which took some segments of the population away from villages for much of the year. Ethnographic accounts of the Huron, Five Nations Iroquois, and Mahican document the fact that prehistoric groups spent much of their time occupying local and remote camps engaged in activities such as fishing, nut harvesting, and hunting to supplement a diet reliant on maize horticulture (Brumbach and Bender 2002; Jameson 1959; Thwaites [1896-1901] in Tuck 1971; Tooker 1991).

Little research has been conducted on these extra-village site types, even though they were an integral part of Early Late Prehistoric life. Non-village sites in eastern New York have often eluded detection due to their small size and limited artifact assemblages. Our understanding of the roles of these small sites within larger regional settlement systems is therefore limited. A recent highway construction project along Route 23A in the Town of Catskill, Greene County, New York provided an opportunity to examine the role of two of these sites and their relationship to larger Early Late Prehistoric (A.D. 700-1300) settlement systems (Rieth et al. 1998). This paper provides a brief overview of these sites and demonstrates the role that these small sites have in creating a more integrated view of the prehistoric landscape.

Regional Setting

The following section provides a brief overview of the local and regional setting in which these sites were identified and the role that the surrounding environment played in attracting prehistoric groups. The Route 23A project area is located in the Town of Catskill, Greene County, New York. The project area is located within the Hoogeberg physiographic subdivision of the Hudson Valley (U.S.D.A. 1993). This is a mountainous area bordered by the Kalkberg subdivision to the east and the Kiskatom Flats subdivision to the west. Numerous rolling hills, concentrated marshes, and steep slopes characterize the area.

The Route 23A project area is located in the Kaaterskill Drainage system and is bisected by tributaries of the Kiskatom Creek, which flows into the Hudson River approximately 4 mi east of the project area (Broad 1993:1). The Hudson River and its tributaries played an important role in the settlement and subsistence strategies of the region. Aquatic and non-aquatic resources were often procured from the river for use in food, medicinal, and utilitarian activities (Brumbach and Bender 2002; Cassedy 1998; Funk 1976; Ritchie 1994). The Hudson River and its tributaries also provided an access route connecting upland and lowland areas.

Cassedy (1998) argues that this portion of the Hudson Valley contains moderately shallow bedrock covered by glacial till; some areas also contain associated glaciofluvial landforms. The soils found within the project area are characterized as poor to moderately well drained. Poorly drained deposits have resulted in the creation of several wetland areas within 2 mi of the project area. These areas may have attracted prehistoric groups for the collection of food and utilitarian materials. The Hudson Valley is underlain by shales and sandstones buried under the Pleistocene-Holocene mantle (Cassedy 1998:8). Outcrops of chert and limestone surround the Route 23A project area and would have facilitated the collection of lithic materials (Broad 1993).

Early Late Prehistoric Settlement And Subsistence

The Early Late Prehistoric period in eastern New York is often characterized by the (1) adoption and/or intensification of maize-based agriculture; (2) the shift from a mobile to a semi-sedentary village life; and (3) the use and manufacture of cord-marked ceramics with complex design motifs (Cassedy 1998; Funk 1976; Ritchie 1994; Ritchie and Funk 1973; Snow 1980). Recent research suggests that these characteristics are over-simplified and do not accurately represent the behaviors of all Early Late Prehistoric groups. Instead, archaeological evidence indicates that Native groups exploited a variety of land forms and spent much of their time engaged in activities occurring beyond the boundaries of larger base camps and villages. Research by Brumbach and Bender (2002) and others (Cassedy 1998; Hartgen Archaeological Associates, Inc. 1983; Snow 1980) highlight the important role that non-residential sites played in sustaining Early Late Prehistoric groups in the Hudson Valley.

Small upland sites have received minimal attention in New York due to their limited artifact assemblages, poorly defined features, and absence of substantial architectural features. The absence of formal interpretive contexts for understanding these sites has also contributed to the belief that these sites have limited research value (Curtin et al. 2004; Means 1999; Versaggi 1996 as cited in Miroff 2002). Studies by Abel (2000), Engelbrecht (2003), Miroff (2002), and Rieth (2002) represent notable exceptions and highlight the importance of these small sites in Late Prehistoric settlement and subsistence systems. Furthermore, as Means (1999) has pointed out, the characteristics of these small sites, which initially indicate limited research potential, are often beneficial, when compared to larger sites. Characteristics such as repeated occupation of specific landforms and obscuring of multiple discrete temporal and spatial components by plowing has often resulted in a "blurring" of settlement and subsistence information at larger sites. Finally, the location of some small upland sites in areas that are away from fertile horticultural fields and construction areas has minimized impacts to many of these small upland sites, causing the cultural deposits of these sites to retain their original integrity (Means 1999; Pilles and Wilcox 1978).

Project And Site Description

The remainder of this article provides a case study of two Early Late Prehistoric upland sites identified during a recent highway transportation project along Route 23A in eastern New York. A general project description and detailed information about the Catskill I and II Sites are provided below.

Project Overview

Staff from the Cultural Resource Survey Program (CRSP) at the New York State Museum conducted a reconnaissance survey in 1997 for the New York State Department of Transportation prior to a bridge replacement project along Route 23A, in the Town of Catskill, Greene County, New York (Rieth et al. 1998). As part of this compliance project, a corridor measuring 914 m (3,000 ft) long and 15 m (50 ft) wide was examined. A surface survey and excavation of 77 small 50 cm (20 in) round shovel test pits revealed cultural deposits associated with two small prehistoric sites. Both sites were determined to be potentially eligible for the State and National Registers of Historic Places, and further work was recommended to assess the integrity and research value of these small sites.

Site examinations at both sites produced additional information about the integrity, chronology, and function of these prehistoric sites (Rieth et al. 1998). During the site examination, five 1 m (3 ft) square test units were excavated within the project limits of the Catskill I site and three 1 m (3 ft) square test units were excavated at the Catskill II Site. The deposits from these units were excavated in 10 cm (3.9 in) arbitrary levels within natural soil horizons. The contents of both the shovel test pits and the test units were screened through ¼ in mesh hardware cloth. Each of the test units was excavated until non-artifact bearing soils were encountered. A 50 cm (20 in) square shovel test pit was excavated through the floor of each unit to (1) insure that no deeply buried deposits were located within the project limits and (2) collect additional information concerning site formation processes.

Catskill I Site (NYSM #10515)

The Catskill I Site is located south of Route 23A in the Town of Catskill, Greene County, New York (Figures 1 and 2). The site extends across a small floodplain of Kiskatom Creek measuring approximately 85 m (272 ft) long and 12 m (38.2 ft) wide. Excavations identified cultural deposits within the Ap- and B-horizons at an approximate depth of 30 to 50 cm (12 to 20 in) below the ground surface. The largest concentration of materials was identified along the eastern half of the site in the vicinity of Units 1, 5, and 8. These three units produced more than 75% of the artifacts recovered and are considered to be within the site's primary activity area.

No identifiable features were located during the reconnaissance survey or site examination; however, the presence of small flecks of wood charcoal within the Ap- and B-horizons suggest that one or more features may have been located within the project limits (Rieth et al. 1998). One sample of charcoal was submitted for accelerator mass spec-

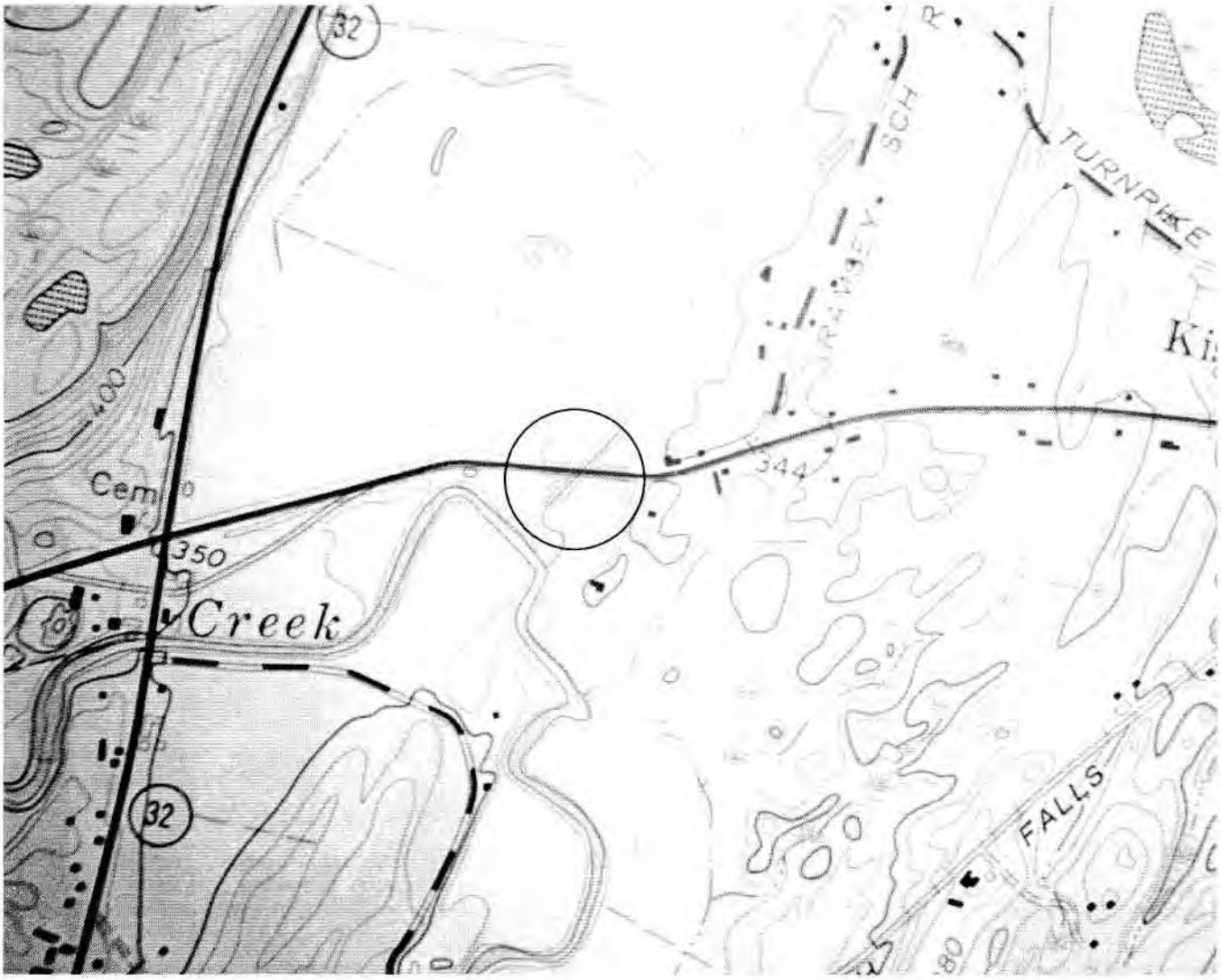

Figure 1. Map showing the location of the Catskill I and II Sites in eastern New York.

trometry (AMS) dating. The sample produced a date of 2450 ±40 B.P. (cal 2 δ B.C. 780 to 400) (Beta 184155). This date is far too old to be associated with the Levanna projectile point recovered from the site and is believed to be in error. Following Ritchie (1971), Levanna projectile points are usually found on sites dating to the Early Late Prehistoric period.

A total of 133 prehistoric artifacts were recovered within the project limits (Table 1). These artifacts include four ground/pecked stone tools, three chipped stone tools, nine floral/faunal remains, and 117 pieces of debitage. The seven tools include two pitted stones, one anvilstone, one hammer stone, one Levanna projectile point, and two bifaces. All but three of the lithic tools and pieces of debitage were manufactured from locally available Normanskill chert. The remaining three artifacts were manufactured from Coxsackie chert. Coxsackie chert is not readily available near the site and may either represent the

Table 1. Summary of Artifacts from the Catskill I Site (NYSM # 10515).

Artifact Class	Artifact Type	Count (%)
Ground Stone	Pitted Stones	2 (1.5)
	Anvilstone	1 (0.75)
	Hammerstone	1 (0.75)
Chipped Stone	Biface	2 (1.5)
	Projectile Point	1 (0.75)
Debitage	Cortical	18 (13.5)
	Tertiary	20 (15)
	Bifacial thinning	22 (16.5)
	Shatter	34 (25.6)
	Broken	23 (17.3)
Wood Charcoal	—	7 (5.3)
Total		133 (100)

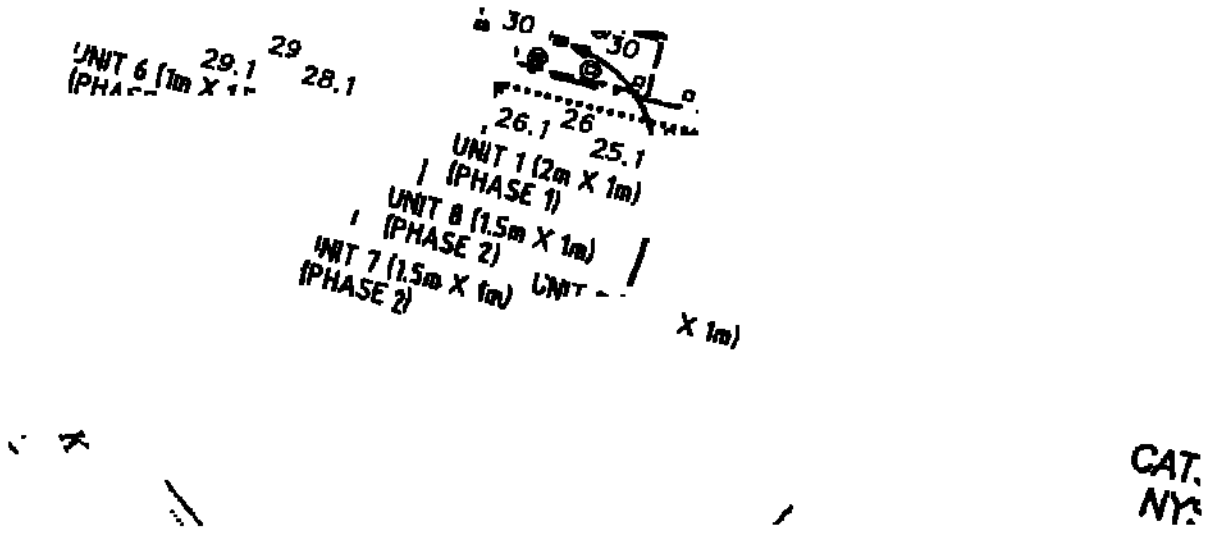

Figure 2. Map showing the Catskill I Site (NYSM # 10515).

exploitation of non-local quarries or interaction with groups living in other parts of the valley.

The flake assemblage is largely composed of small bifacial thinning (n=22) and tertiary (n=20) flakes and pieces of shatter (n=57). Tertiary and bifacial thinning flakes are usually produced during the secondary reduction of cores and are characterized by little or no cortex. One explanation for the large number of thinning flakes may be related to the fact that the objects may have been (minimally) worked prior to their arrival at the site.

None of the chipped stone artifacts show evidence of heat treatment as determined by the presence of "potlids" or a discoloration of the surface of the artifact (Rieth et al. 1998). Instead, these flakes (and the resulting bifaces) were probably produced using only a soft (e.g., antler) or hard (e.g., river cobble) hammer. This is supported by the apparent absence of hearths within the project limits and the large number of bifacial thinning flakes at the site. This further suggests that lithic raw materials were partially created elsewhere and finished at the site.

Of the total number of manufacturing debris, 28 artifacts (22% of the total) were expedient utilized flakes. The University of Tennessee Archaeology Laboratory performed micro-wear analysis on a sample of eight flakes. Seven of the artifacts revealed use polishes on one to four flake edges. Five flakes from Units 5 and 8 produced polish on the dorsal tip, suggesting that the artifacts were held at an acute angle and were probably used as cutting tools. Overall, the polish on these artifacts was not well-developed, limiting analyses of some flakes to general categories. Polish consistent with the use of wood or other plant materials was observed on four of the seven fragments. Two flakes contained evidence of hide polish on the dorsal surface and may indicate that these flakes were used to prepare hides. The final artifact contained faint traces of bone polish. Given the poor preservation of the polish, it is unclear whether this tool was used for cutting, slicing, or engraving.

In summary, the site deposits suggest a short-term occupation due to (1) the low number and diversity of recovered artifacts, and (2) the apparent absence of a well-defined midden, post mold, hearth, or pit features. These features are commonly found at long-term occupations in eastern New York (Brumbach and Bender 2002; Cassedy 1998; Ritchie and Funk 1973; Snow 1980). The high density of artifacts along the eastern portion of the site may indicate the presence of one or more activity areas within the project limits. Micro-wear analysis of utilized flakes suggests that activities associated with the processing of plant and animal materials probably occurred within the project limits. The recovered Levanna projectile point dates to the Early Late

Prehistoric period (Ritchie 1971). The absence of diagnostic materials dating to the Early Woodland period (c. 1000 B.C.-A.D. 200) suggest that AMS dates for the site are erroneous and the recovered charcoal is probably contaminated.

Catskill II Site

The Catskill II Site is located across Kiskatom Creek from the Catskill I Site (Rieth et al. 1998:85). Within the project boundaries, the site measures approximately 82 m (262 ft) long and 10 m (32 ft) wide (Figure 3). The results of the reconnaissance survey and site examination suggest that cultural deposits were contained along the interface of the Ap- and B-horizons at an approximate depth of 30-40 cm (12-16 in) below the ground surface (Rieth et al. 1998). The heaviest concentration of artifacts was identified in the central and western portion of the site in Units 2 and 3. Each of these units produced more than 27 artifacts from the interface of the Ap- and B-horizons. The largest number of artifacts was recovered from Unit 3. This unit produced 51 artifacts. Unit 2 produced 27 flakes and Unit 4 produced 10 flakes. The remaining artifacts were found in Unit 1.

In all, 102 prehistoric artifacts were recovered from the Catskill II Site (Rieth et al. 1998:91). Included among these artifacts were two chipped stone tools, one piece of fire-cracked rock, nine pieces of wood charcoal, and 90 pieces of lithic debitage (Table 2). The chipped stone tools include one Levanna projectile point and one small end scraper. Like the Catskill I Site, all of the chipped stone tools and debitage were manufactured from locally available Normanskill chert. The fire-cracked rock consisted of quartzite cobbles that were probably procured from the nearby creek bed.

Materials recovered from the Catskill II Site included 90 pieces of lithic debitage. The majority of the flakes consisted of non-cortical bifacial thinning (n=16) and tertiary (n=19) flakes (Table 2). Bifacial thinning and

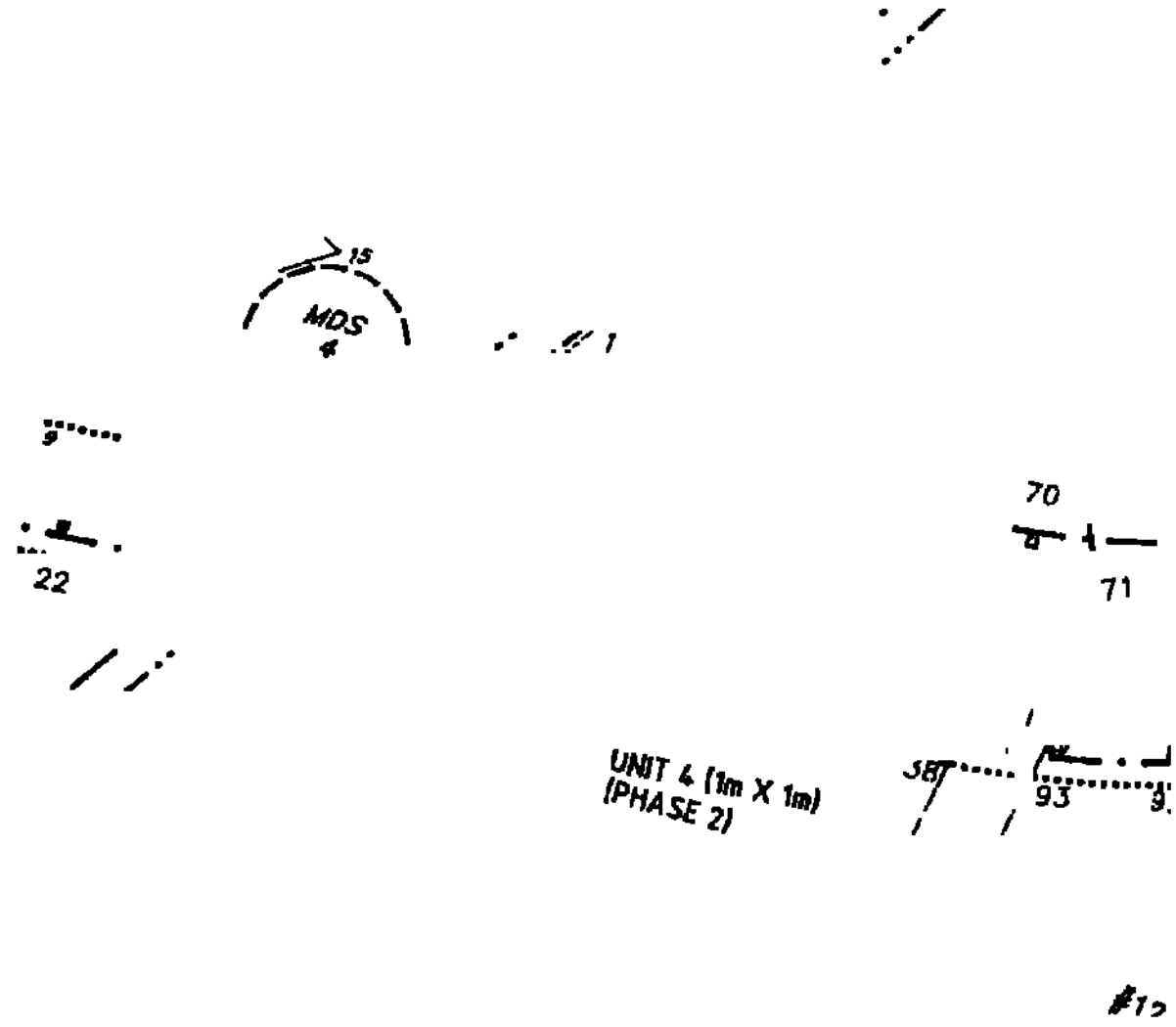

Figure 3. Map showing the Catskill II Site (NYSM # 10516)

Table 2. Summary of Artifacts from the Catskill II Site (NYSM # 10516).

Artifact Class	Artifact Type	Count (%)
Chipped Stone	Scraper	1 (0.9)
	Projectile Point	1 (0.9)
Debitage	Cortical	20 (19.6)
	Tertiary	19 (18.6)
	Bifacial thinning	16 (15.7)
	Shatter	3 (2.9)
	Broken	32 (31.3)
Wood Charcoal	—	9 (8.8)
Fire-cracked Rock	—	1 (0.9)
Total		102 (100)

tertiary flakes are generally produced during the reduction of cores and lack cortex on the exterior surface. Of the 33 flakes with remnant striking platforms, 21 (64%) exhibit evidence of preparation. Evidence of preparation is visible in the step fractures on these flakes. Like the Catskill I Site, the large number of bifacial thinning and tertiary flakes suggests that bifacial tools were probably worked before they were brought to the site.

Three flakes show evidence of heat treatment as determined by the presence of "potlids" and surface discoloration. Given the absence of discovered hearth features at the site, it is not known whether these objects were subjected to thermal alteration at the site or elsewhere.

Of the total number of flakes, six (or 7% of the total) could be characterized as expedient utilized flakes. Microwear analysis of a sample of three flakes provided information about the use of these expedient tools. All three of the artifacts revealed use polishes on two or more flake edges. Like the Catskill I site, the polish on these artifacts was not well-developed, limiting analyses of some flakes to general categories. Polish consistent with the use of wood or hide materials was observed on two fragments. Evidence was found on the dorsal surface of both artifacts and may indicate that these flakes were used to prepare hides and/or strip local wood/plant species for use in perishable containers. The final artifact contained faint traces of bone polish on the two edges. Given the location of the polish, it seems likely that the tool was used as a cutting implement.

In summary, the Catskill II Site produced the remains of a short-term occupation dating to the Early Late Prehistoric period. Tools manufactured from Normanskill chert were recovered from the site suggesting a reliance on local materials. The majority of the artifacts are non-cortical flakes that suggest that unfinished tools were brought to the site. Microwear analysis of expedient tools suggests that the occupants of the Catskill II site were processing both animal and plant remains. The recovered Levanna projectile point dates to the Early Late Prehistoric period (Ritchie 1971).

Discussion

Archaeological excavations at the Catskill I and II Sites have provided interesting information about Early Late Prehistoric upland land use in eastern New York. The Catskill I and II Sites both represent small single use occupations. Both sites contain similar archaeological characteristics, including low-density artifact concentrations, a relative paucity of formal chipped and ground stone tools, and small expedient tools that were used to process plant and animal remains.

There are several possible explanations for the limited number and diversity of artifacts at these sites. First, the materials from these sites were redeposited. Examination of the soils from both sites does not suggest activities related to erosion or soil redeposition. Subsurface deposits are fairly uniform across the site and do not suggest any unusual formation processes. Therefore, erosion doesn't account for the limited artifact assemblage at these sites. Second, it is plausible that both sites are located on the periphery of a larger site area. Spatial analysis of the distribution of artifacts across the site does not appear to increase along the northern or southern boundary of the site. Shovel test pits along the site boundaries produced similar quantities of artifacts. The final possibility is that the artifacts represent a series of unrelated short-term events. This seems to be the most likely scenario with these two clusters of artifacts representing short-term events probably ranging in duration from a few hours to a day.

Assuming the final scenario is depicted at the Catskill I and II Sites, what types of behaviors could account for the limited artifact assemblages at these small sites? According to Means in his analysis of small temporary upland sites in western Pennsylvania:

> ...if specific resources were targeted in the uplands, one would expect to see fewer tools used and therefore fewer tools that could have been lost or discarded than would have been seen in base camps [Means 1999:157].

The location of these sites adjacent to the Kiskatom Creek and within 6 km (2 mi) of small wetland areas would have made them attractive locations for the procurement of food and other household resources.

The short distance between these sites and the Hudson River lowlands would have allowed groups to make daily forays into the uplands to collect needed resources. Micro-

wear analysis of utilized flakes suggests that these groups probably exploited animal and plant/wood resources. Historical accounts of Algonquian groups residing in the Hudson Valley document regular forays by procurement groups beyond village boundaries to collect these items (Brumbach and Bender 2002; Dunn 1994).

Given the small size and limited artifact assemblages, we are left to ask whether these sites have further research potential that would allow the sites to be eligible for the National Register of Historic Places. The results of the reconnaissance survey and site examination have provided important information about the prehistoric occupation of the uplands. These excavations have provided important information about the timing and range of behaviors that were occurring at the site. By example, the recovery of two Levanna projectile points suggests that these sites were occupied during the Early Late Prehistoric period (Ritchie 1971). The identification of these two loci begs us to ask whether the Late Prehistoric occupants of the region favored the area, or whether it is merely coincidental that two groups occupied the same location. Until a more extensive survey of the region can be conducted, we can only speculate about the answer to this question.

Research questions related to the manufacture of chipped stone tools also contributed to our understanding of the activities and functional use of these small sites. Comparison of the debitage at the Catskill I and II Sites indicates that the occupants of both sites were engaged in activities centering on the reduction of large cores into smaller more refined chipped stone tools. The primary difference between the flakes from these sites can be seen in the percentage of shatter and broken flakes at these sites. The Catskill I Site produced a lower percentage of broken flakes than general shatter (29.1% vs. 3.3%). The Catskill II Site produced a lower percentage of shatter and higher percentage of broken flakes (19.7% vs. 33.3%). These differences may be related to the way that the Late Prehistoric occupants of the site were preparing stone tools and/or the techniques used to reduce larger cores to smaller tools. Comparison with other temporary occupations will allow us to refine our understanding of stone tool manufacture in these small upland sites.

The hammer and anvil and expedient plant processing tools recovered from these sites also provide interesting insights into the activities that were occurring at these sites. As Means (1999) notes for western Pennsylvania, plant materials were often processed at these sites to facilitate the transport of these materials back to a larger base camp or residential site. In addition, advanced processing may have also increased the volume of materials that could have been collected. Advanced processing of plant and wood materials may have been beneficial when descending the steep terrain to lowland residences along the Hudson River.

Conclusion

The Catskill I and II Sites probably represent small temporary occupations used for foraging and resource procurement activities. Given the limited number of small upland sites that have been excavated in eastern New York, the data generated as a result of these excavations argue for the importance of these small lithic sites within larger settlement and subsistence systems. The results of this project show the research potential of these small sites and their importance in understanding upland land use in eastern New York.

To adequately understand Late Prehistoric settlement systems, it is important to understand the relationship between both small temporary camps and larger village sites. Future research contexts need to explore the role that extra-village sites played in the collection of food and utilitarian items. Detailed analyses of specific artifact types are also needed to accurately assess the behaviors of native groups.

Acknowledgements

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References Cited

Abel, Timothy J.
2000 The Plus Site: An Iroquoian Remote Camp in Upland Tompkins County, NewYork. *North American Archaeologist* 21(3):181-215.

Broad, William A.
1993 *Soil Survey of Greene County, New York.* U.S. Printing Office, Washington D.C.

Brumbach, Hetty Jo and Susan Bender
2002 Woodland Period Settlement and Subsistence Change in the Upper Hudson River Valley. In *Northeast Subsistence-Settlement Change, A.D. 700-1300*, edited by John P. Hart and Christina B. Rieth, pp. 227-241. New York State Museum Bulletin 496. The University of the State of New York, Albany, New York.

Curtin, Edward V., Kerry Nelson, and Jessica Schreyer
2003 Strategies for Investigating and Interpreting Small Prehistoric Sites and Low Density Artifact Distributions: Examples from the Hudson Drainage. Paper presented at the Current Approaches to the Analysis and Interpretation of Small Lithic Sites Colloquium. New York State Museum, Albany.

Cassedy, Daniel F.
1998 From The Erie Canal to Long Island Sound: Technical Synthesis of the Iroquois Pipeline Project, 1989-1993. Report prepared by Garrow and Associates, Inc. for the Iroquois Gas Transmission System, Shelton, Connecticut.

Dunn, Shirley
1994 *The Mohicans and Their Land 1609-1730.* Purple Mountain Press, Fleischmanns, New York.

Engelbrecht, William
2003 *Iroquoia: The Development of a Native World.* Syracuse University Press, Syracuse, New York.

Funk, Robert E.
1976 *Recent Contributions to Hudson Valley Prehistory.* Memoir 22. The University of the State of New York, Albany, New York.

Hartgen Archaeological Associates, Inc.
1983 Mechanicville Road (209) Site: Results of Mitigation Procedures, Waterford, Saratoga County, New York (C-36-644). Hartgen Archaeological Associates, Inc., Albany, New York.

Jameson, J. Franklin
1959 *Narratives of New Netherland, 1609-1664.* Barnes and Noble, New York.

Means, Bernard K.
1999 Sites on the Margins are Not Marginal Archaeology: Small, Upland Sites in the Vicinity of Meyersdale, Pennsylvania. *North American Archaeologist* 20(2):135-161.

Miroff, Laurie
2002 Upland Land Use Patterns During the Early Late Prehistoric (A.D. 700-1300). In *Northeast Subsistence-Settlement Change, A.D. 700-1300*, edited by John P. Hart and Christina B. Rieth, pages 193-208. New York State Museum Bulletin 496. The University of the State of New York, Albany, New York.

Pilles, Peter J. and David R. Wilcox
1978 The Small Sites Conference An Introduction. In *Limited Activity and Occupation Sites: A Collection of Conference Papers*, edited by A. D. Ward, pp. 1-5. Contributions to Anthropological Studies No. 1, Albuquerque, New Mexico.

Rieth, Christina B.
2002 Upland Settlement and Subsistence in the Southern Tier of New York. In *Northeast Subsistence-Settlement Change, A.D. 700-1300*, edited by John P. Hart and Christina B. Rieth, pp. 209-226. New York State Museum Bulletin 496. The University of the State of New York, Albany, New York.

Rieth, Christina B., Mark L. LoRusso, and Aaron Gore
1998 Cultural Resources Reconnaissance Survey for PIN 1124.30.121 and Site Examination Report for the Catskill I and Catskill II Sites in NYS Route 23A, Town of Catskill, Greene County, NewYork. Report prepared for the New York State Department of Transportation and the Federal Highway Administration.

Rieth, Christina B. and Beth Horton
2004 Late Prehistoric Subsistence in Central New York: Archaeological Evidence from the Bailey Site. Paper presented at the 34th Annual Meeting of Middle Atlantic Archaeology Conference, Rehoboth Beach, Delaware.

Ritchie, William A.
1971 *Typology and Nomenclature of New York Projectile Points*. New York State Museum and Science Service Bulletin 384. The University of the State of New York, Albany.

1994 *The Archaeology of New York State*. Purple Mountain Press, Fleischmans, New York (Revised edition).

Ritchie, William A., and Robert E. Funk
1973 *Aboriginal Settlement Patterns in the Northeast*. New York State Museum and Science Service, Memoir 20. The University of the State of New York, Albany, New York.

Snow, Dean R.
1980 *Archaeology of New England*. Academic Press, New York.

Tooker, Elizabeth
1991 *An Ethnography of the Huron Indians 1615-1649*. Syracuse University Press, Syracuse, New York.

Tuck, James
1971 *Onondaga Iroquois Prehistory: A Study in Settlement Archaeology*. Syracuse University Press, Syracuse, New York.

United States Department of Agriculture
1993 Soil Survey of Greene County, New York. United States Department of Agriculture, Washington, D.C.

Versaggi, Nina M.
1996 Hunter-Gatherer Adaptations in the Upper Susquehanna: Are the Uplands Part of the Picture? Paper presented at the Conference on Integrating Appalachian Highlands Archaeology, New York State Museum, Albany, New York.

Mounds of New York: A Review of Adena and Hopewell Earthworks

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Earthworks and mounds that have been identified with the concepts of Adena and Hopewell are well known in Ohio, and associated sites have been identified in many outlying areas. The connection between these more distant sites and the Adena/Hopewell heartland is not well understood, especially for those found in New York State. In order to begin developing a better understanding of this relationship, it is necessary to first understond just where these sites exist. Unfortunately, most of the mound/earthwork sites within New York were long ago lost to the plow, and other nineteenth- and twentieth- century human activities. This paper represents an initial attempt to collect information on probable Early Woodland mound sites in New York and to consider their relationships to each other and to the Adena/Hopewell heartland. This work is far from complete, but it is hoped that it will stimulate further consideration, discussion, and data collection.

Introduction

Some of the most spectacular archaeological sites in the Eastern Woodlands are those that have been identified as belonging to the Adena and Hopewell Cultures of the Ohio area. For their time, these sites seem to represent the pinnacle of technological achievement and corporate organization. While the heartland of these cultures has been identified as the Ohio River drainage, other sites located in adjacent areas have been interpreted as having some level of connection to these cultures as well. Adena and Hopewell mounds and earthworks have been identified in a number of states, and material remains that have been identified as Adena or Hopewell have been found from as far away as Louisiana and Wisconsin to Vermont and Georgia. These associations have been examined for much of the last 70 years, and a number of interpretations of their relationships have been proposed.

This work will strive to review the history of these interpretations as they have been applied to sites in New York State, and attempt to evaluate the current understanding of what, if any, relationship there is between the Adena/Hopewell of Ohio and similar sites in New York. To do this I will examine the history of thought on this topic by scholars of New York prehistory; present published and unpublished data on a number of New York sites; and consider issues regarding future research on these sites.

What are Adena and Hopewell?

Through time, the terms Adena and Hopewell came to be used to identify very broad and loosely associated patterns of artifact distributions that were purported to identify associated cultural complexes. While these terms and their associated trait lists came to be unwieldy and overused to the point of losing much of their usefulness, when first introduced they were a necessary evil. As early as the late eighteenth century, interested explorers were identifying and recording the earthworks and mounds of the Ohio River valley. Thomas Jefferson, one of the first Americans to conduct scientific archaeological inquiry, received reports on a series of works near the confluence of the Muskingum and Ohio rivers including a plan of what would later be known as the Marietta Works in 1786 (Figure 1).

During the mid-nineteenth to early twentieth centuries, the rate of "archaeological investigation" and the accumulation of data reached a level that had never been approached in North America. Much of this investigation was taking place in the Eastern Woodlands and was driven in part by the spectacular earthworks of the greater Ohio and Mississippi River Valleys. The *Twelfth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution, 1890-1891* (Powell 1894) included an article by Cyrus Thomas on the results of a multi-year program of mound explorations. This *Report on the Mound Explorations of the Bureau of Ethnology* (Thomas 1894) is a 742 page monograph that examined mound sites from the entire Eastern Woodlands through the Dakotas. Thomas and his crews examined all types of mounds and came to the conclusion that many different cultures were responsible for the creation of the wide variety and distribution of earthworks they had examined. He also realized that there were a multitude of earthwork varieties and that assigning labels to them would be a subjective exercise, reflecting his own biases more than any reality assigned to the structures by their original builders. However, he also realized that in order to orga-

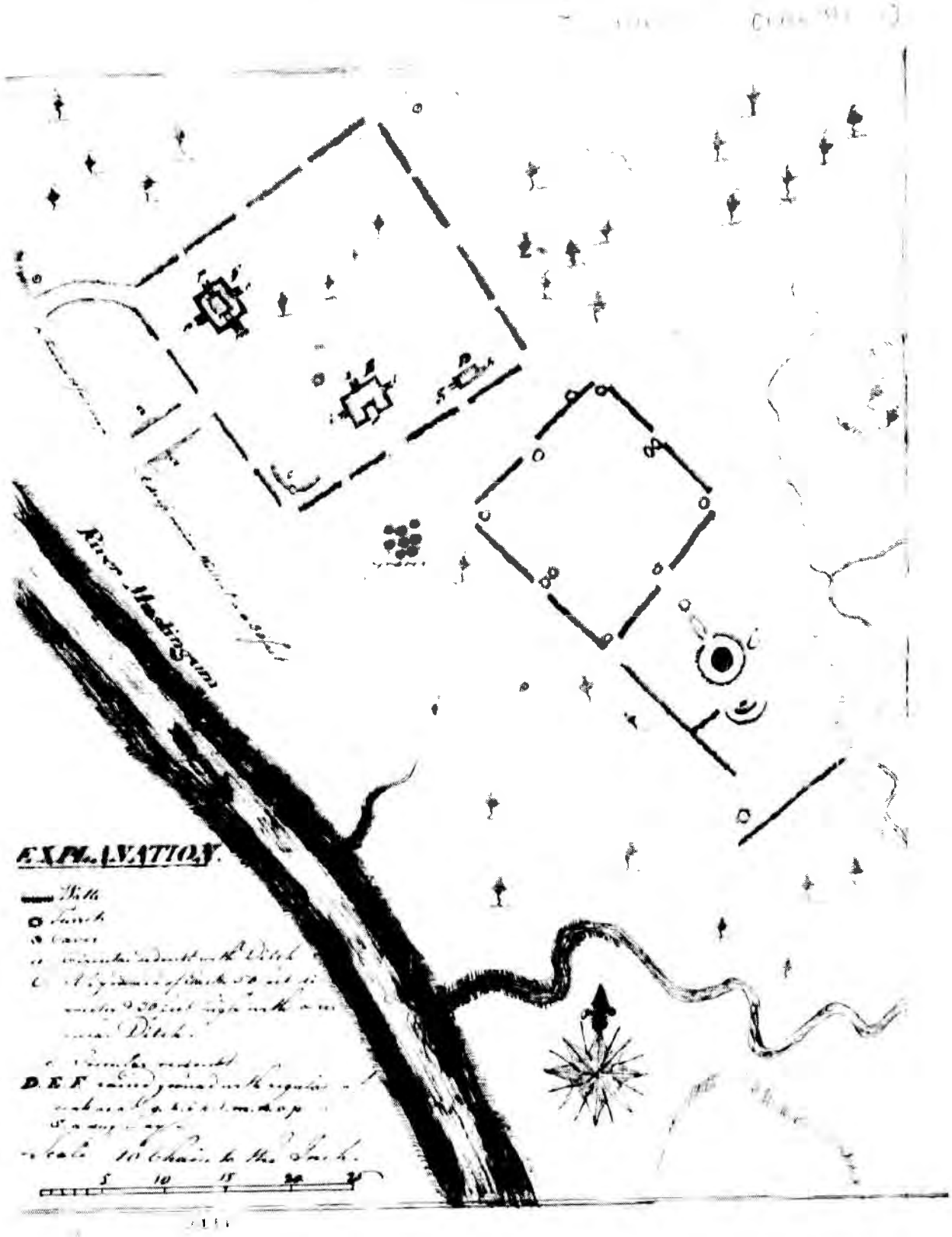

Figure 1. Drawing of Indian Mounds in Ohio, with Notations by Samuel Parsons sent to Ezra Stiles (Parsons 1786). Original located in the Thomas Jefferson Papers, Library of Congress, Washington, DC.

nize the material, there needed to be some basic level of description that appeared to correlate with the various types of earthworks. To accomplish this he broke down "mounds" into several classes including: "Conical Tumuli," "Elongate Mounds," "Pyramidal Mounds," and "Effigy Mounds" (1894:29-31). Of these, the conical mounds are identified as the most common type; they were found throughout the study area, often in association with other types of works. These are the only type of "mound" identified by Thomas that is found within New York.

In 1901, William Mills and the Ohio Archaeological and Historical Society conducted a complete excavation of the Adena Mound, located just north of Chillicothe, Ohio. The results of this excavation were published in 1902, providing the public with the first detailed account of a complete scientific excavation of one of these conical mounds (Figure 2) (Mills 1902). Mills gives a complete description of the mound construction, burials found and their relationship to each other, and the artifacts associated with each burial. Based on this work, it was clear that the society that created this structure was highly organized and had a well established mortuary complex.

In addition to these types of sites, Ohio produced a series of other site types that contained enclosures. While some appeared to enclose hilltops and seemed to be defensive structures, others such as those at Mound City, Hopewell, and other sites in the Scioto Valley were more problematic. In 1920, Shetrone attempted to correlate the data known to that point and created a scheme for attributing sites to particular cultures that would have wide reaching and long lasting effects (Shetrone 1920). In this article, Shetrone formalized the terms Adena and Hopewell as cultural indicators, and set forth the basic traits that could be used to identify whether a site belonged to one of these cultures, or to one of several others that he proposed.

History of the "Adena/Hopewell" Concepts in New York

Moundbuilder Sites in New York

While the most spectacular earthworks associated with the Adena and Hopewell cultures were identified in the Ohio River drainage system, many more mound sites have been found extending westward through the Mississippi drainage and eastward toward the Atlantic. The remainder of this paper will focus on "Adena" and "Hopewell" manifestations in New York.

Descriptions of prehistoric earthworks in New York have been published since the early eighteenth century. Apparently, these works, including "...intrenched hills, and occasional mounds, or tumuli..." that "...became a subject of frequent remark, as the tide of emigration flowed westward; and various detached notices of their existence were from time to time, made public" (Squier 1849:8). The first detailed description of the range of prehistoric works in the state was made by De Witt Clinton in 1818. While most of the sites discussed by Clinton were later identified as fortified Iroquoian (Late Woodland) villages, he was aware that even at this early date, many of these prehistoric works were being destroyed across New York. In the introduction to his remarks, Clinton states:

> As the progress of cultivation extinguishes the remains of antiquities mentioned in this memoir, the view of the writer, in publishing it, is to awaken enquiry to a subject of great importance, before the means of investigation are entirely lost [Clinton 1818].

Throughout the first half of the nineteenth century, there are occasional references to the earthworks of New York, though most seem to be focused on the ditches and embankments of Late Woodland Iroquois villages. Throughout this period, however, there are occasional references to "burial mounds," most of which were noted as they were destroyed. In 1849, Ephraim Squier followed up his work on the *Ancient Monuments of the Mississippi Valley with a similar study of the Aboriginal Monuments of the State of New York.* In this volume Squier describes a number of burial mounds from western New York and Ontario, but all seemed to be late Woodland examples, with trade goods including brass kettles and iron hatchets. Most of these contained numerous burials mixed together and appear to have been created by variations on the feast of the dead ritual noted among the Huron by several early European writers including the Jesuit missionaries (Thwaites 1959).

While a review of Squier's volume seems to suggest little in the way of early evidence for a connection to the Early/Middle Woodland cultures of Ohio, there are several suggestive items included among the implements he describes, including several in-process monitor type platform pipes (Squier 1849:118) found near Mount Morris in Livingston County, a copper axe from the area of Auburn in Cayuga County, and gorgets from Monroe and Cayuga

Figure 2. Construction of the Adena Mound (Mills 1902). With the permission of the Ohio Historical Society.

Counties, that match specimens from Ohio in both materials and forms.

Perhaps the best early evidence for a moundbuilder style mound in New York was provided by T. Apoleon Cheney in 1865 in the *18th Report of the New York State Cabinet of Natural History* (later to become the New York State Museum). Cheney described what may have been New York's largest conical mound, located in the Conewango Valley at Poland Center in Chautauqua County. It was located on the brow of a hill overlooking the Conewango River, and consisted of a conical mound surrounded by a ditch and vallum (i.e., a rampart or fortifying wall). The main mound had axes of 65 and 61 ft and was approximately 15 ft high. The embankment had a 30 ft opening facing east. Excavation of a portion of the mound produced eight burials and an assortment of objects including "amulets, chisels etc. of elaborate workmanship" (Cheney 1865). This same mound was re-examined by Arthur Parker and the New York State Museum in 1905. At that time, it was still one of the two highest mounds in the state, but had suffered damage from excavation and plowing. It still reached a height of 9-10 ft and had a diameter of 64 ft. Parker was able to discern the possible remains of an outer wall and trench, but did not attempt to excavate the deep leaf mold, fallen trees or back-dirt from previous excavations to closely examine these features. Numerous artifacts were identified in the surrounding fields, including numerous celts, soapstone pipe fragments, several stone gorgets, and a stone tube which he identifies as similar to items from Ohio (Parker 1920:87).

Parker goes on to describe several more mounds from the western portion of the state, several graves in a gravel bank near Vine Valley on Canandaigua Lake, and an isolated burial near Athens, Greene County along the Hudson River, all of which contained material with clear links to the Ohio cultures. These items included: stone tube pipes; monitor pipes; copper items including celts, rolled beads and bi-cymbal ear ornaments; and marine shell beads (Parker 1920).

Moundbuilder Sites without the Mounds

Middlesex

In addition to these mound sites, other mortuary sites with evidence of various types of ceremonialism that appeared to have connections to the Ohio area were being found throughout New York during the late nineteenth and early twentieth centuries. During this period the Middlesex culture was identified based on a number of burial sites that had produced stone tube pipes, copper ornaments, and lithic materials that seem to have originated in the Ohio drainage.

A series of these sites were identified along the north bank of the Mohawk River between Palatine Bridge and Schenectady. Several of these sites were first found during the construction of the New York Central Railroad line. The line followed the north bank of the Mohawk River, and during its construction a number of high knolls were cut through and utilized for fill material. Early reports indicated that several had contained human remains and assorted artifacts. Much of this material was either discarded or picked up by interested locals, and lost to science. However, an early serious collector, Samuel Frey, was able to visit one site, the Vedder Site, located just east of Palatine Bridge.

At the Vedder Site, Frey was able to collect material that he identified as clearly having affinities to the Ohio material (Frey 1879). Several years after the original finds, Frey returned to excavate remaining portions of the gravel ridge, identifying seven intact graves containing eight bodies. Five of these graves were grouped together and were stone-lined. Associated artifacts with connections to Ohio included literally hundreds of cache blades, a number of stone tubes (four of which were made of Ohio firestone), copper beads, a copper awl, conch shell containers, marine shell beads, red ochre, and double pointed knives. In addition a number of less exotic items were also recovered, including turtle shell, deer antler, beaver and elk teeth, and a graphite sinew stone (Kirk 1998).

A second of the Mohawk Valley sites, which had also first come to light during the railroad construction, was examined by another antiquarian collector, Percy Van Epps. At the Toll-Clute Site, an unknown number of burials were present with associated artifacts that included a copper celt, two "alabaster" gorgets, two slate blocked end tubes, and large quantities of marginella and columnella shells (Van Epps 1894, 1896; Ritchie 1944:198). Additional finds were made nearby during gravel mining that included 2 more graves, producing red ochre covered bones, an additional stone tube and 135 copper beads (Beauchamp 1902:41, 1903:16; Kirk 1998; Ritchie 1944:198)

Other sites with similar materials and settings (natural sand and gravel knolls, or hillsides), have been identified both in the Mohawk Valley (Kirk 1998) and other portions of the state, westward toward the Genesee River, with a few examples reaching to the Niagara River. These sites have been designated Middlesex (Ritchie 1944). Up to today, all known Middlesex components have been mortuary sites, and unfortunately few have been scientifically or professionally examined. Like the sites discussed in the Mohawk Valley, the other Middlesex sites were originally identified during construction or farming, and the sites are typically quickly looted before professionals were aware of their presence. Often by the time a professional reaches a site, the majority of the burials and their associated grave furnishings have been removed from the ground with little regard for context. Additionally, the collected items were often rapidly

dispersed, making it difficult to even make an accurate record of what had been removed.

When this Middlesex Phase was first identified, Ritchie believed that the sites represented an infusion of elements of Ohio Adena culture into regional native culture of the northeast (Ritchie 1938a:100-103, 1944:112-115 and 186-187, 1951 131-133). However, by the end of the 1950s, based on greater knowledge of Adena material and of the Middlesex sites, Ritchie had changed his view and regarded Middlesex as essentially Adena in the north, representing an actual mixture of splinter Adena populations with locally resident populations (Ritchie 1980:201). Along with Don Dragoo, Ritchie had developed the theory that Adena elements in New York were the result of an actual displacement of Adena people from their homeland, spreading eastward and mixing with local groups. The "exotic" items found in Middlesex graves represented material they had brought along from their homeland which was slowly deposited in graves, until eventually there was no exotic material left. The variation seen between the various Middlesex sites, and other "Adena-like" sites in other eastern locations, was a result of these refugees mixing in with resident populations (Ritchie and Dragoo 1959, 1960). The impetus for this exodus from Ohio was seen as an expansion of the Hopewell people into the Adena homeland. While these people had held onto many of their ideological values, Ritchie attributes the lack of mounds at these Middlesex (Adena) sites to a disintegration of the socio-political system that had allowed the authority to coordinate the common labor necessary to accomplish these substantial communal projects.

Meadowood

Another group of apparently contemporary sites have been found and identified as Meadowood (Ritchie 1980). In contrast to the Middlesex sites, the majority of Meadowood sites have been identified in the western portion of the state. A large percentage of these sites are also mortuary sites, such as the recently discussed "Viper Mound" in Livingston County (Maxson 2005). A number of smaller settlement/workstation sites have been found, as well as an occasional larger base camp (Granger 1978, Mackey 1991; Ritchie 1980). Like the Middlesex and Adena sites, Meadowood mortuary sites often contain large number of cache blades, red ochre, tubular pipes (although often ceramic rather than stone), and at times marine shell beads. These sites also seem to contain items suggesting extensive trade networks with the east coast and the Midwest, but the range of items does not seem to match with typically Adena items as closely as in the Middlesex sites. Ritchie appears to suspect that these sites are earlier than the Middlesex sites, and identifies close connections between this culture and the Red Ocher and Glacial Kame cultures of the Upper Great Lakes area (Ritchie 1980:200).

In contrast to the Middlesex culture, an increasing number of Meadowood sites and multi-component sites with some Meadowood presence in non-mortuary contexts are being professionally examined. Granger (1978) examined a series of Meadowood sites along the Niagara Frontier region and noticed patterns in the distribution of sites that suggested seasonal activities and the delineation of territorial boundaries expressed in the location of mortuary sites. As part of a survey in advance of construction in 1991, a small lithic processing station associated with this culture was identified in the Town of Waterford, Saratoga County. This site produced a large collection of bifaces broken during production that were identified as early stage Meadowood blade blanks. This find provided the impetus for an application of Granger's model to the Hudson Valley Meadowood components, which indicated that similar patterns, suggesting a connection between mortuary sites and territorial boundaries, may exist in the Hudson Valley as well (Mackey 1991).

Hopewell Mounds?

As has been previously noted, burial mounds or tumuli have long been noted in New York, especially in the western portions of the state along the Genesee and Allegany Rivers and their tributaries. The presence of these mounds have suggested to many that the great mound building cultures of the Ohio region must have had a connection to New York, either through direct migration, trade, or ideological influence. In his 1944 volume on the *Pre-Iroquoian Occupations of New York State*, Ritchie examined the evidence available to address this question. He had previously conducted work on several small mound sites (Ritchie 1938b) in the Genesee Valley, providing him with detailed information on at least a small grouping of mounds. After reviewing this information, and the data on other supposed Hopewellian sites in New York, Ritchie concluded that the use of the term Hopewellian for many of the New York finds was too broad and inclusive. Despite this, he did agree that several of the actual mound sites that he had examined in New York and Pennsylvania did seem to contain evidence of a true Hopewell connection (Ritchie 1944:203-204). At the same time he recognized that a lack of sufficient data hampered an analysis of many of the other reported mounds. As we will see, this remains the case today. Considering all of these data, he decided upon the terminology "New York Focus, Hopewellian Phase" to describe these manifestations (Ritchie 1944:202-227, 1980:215).

The sites to which Ritchie did attribute a definite

Hopewell connection included the Squawkie Hill and Geneseo Mounds (Ritchie 1938b) located within a relatively short stretch of the Genesee Valley between the outlet of the Letchworth Gorge and the Village of Geneseo. In both of these localities Ritchie identified relatively intact mounds that contained a variety of burials along with platform pipes, cache blades, copper items, mica sheets and marine shell beads. In both cases, stone was intentionally used in the architectural design of both the mound and some of the burial chambers. Also in each case, it appears that the original topsoil had been scraped away as part of the mound construction. However, there is no mention of any post patterns or other evidence that any type of structure had been erected prior to the construction of the mound.

By the time Ritchie published his synthesis in *The Archaeology of New York State* in 1965 (1980), he had collected evidence from three additional mound sites, the Lewiston Mound on the Niagara River, the Cain Mound in the Cattaraugus Creek Drainage, and the Rector Mound on the Crusoe Creek in Wayne County. During this period there had also been a realization that the term Hopewell was being applied too broadly over the entire Eastern Woodlands.

It was during this period that other authors had begun to reassess how Hopewell should be viewed and the term employed. One result of this reassessment would be the development of the "Hopewellian Interaction Sphere" concept (Caldwell 1964; Struever 1964, 1968). After reviewing the new information at hand, and considering the movement toward reassessing the concept of Hopewell, Ritiche decided to modify his terminology and identified these sites as belonging to the Squawkie Hill phase of the Hopewellian cultural manifestation in the Northeast (Ritchie 1980:215). Ritchie accepted that this Squawkie Hill phase was imprecisely defined but he suspected that this would be a restricted and relatively short term manifestation. This was seen to be the result of a fusing of Hopewell culture with local resident complexes to produce a mixed cultural composite represented by the varied mounds found in New York (Ritchie 1980:216). While he was not sure whether this influence resulted from actual Hopewell migrants, or from some other form of contact, it was clear to Ritchie that existing social groups were infused with Hopewellian religious ideas, practices and material culture some of which were doubtless cult related (1980:216).

These local resident complexes present in New York during this period are classified as Point Peninsula culture. Ritchie sees many Hopewell influences at sites of this culture, but not enough to identify them as part of his Squawkie Hill phase. Point Peninsula shows a continuation from earlier developments in the area, with an infusion of traits associated with Ohio groups, including Hopewell and the Intrusive Mound Culture (Ritchie 1980:228). Sites associated with this culture continue to exhibit a connection to an exchange network though it does not appear to be as far reaching as that of Hopewell. Exotic items at Point Peninsula sites consist of marine shell beads from the Gulf and Atlantic Coasts, shark teeth, Pennsylvania jasper, rhyolite and argillite, and copper tools and beads. In contrast to Hopewell and Adena, these items appear less often, with copper limited to small tools and limited ornamentation (beads). By the succeeding Late Woodland period, the trade in copper would completely end (Ritchie 1980:253).

Migration, Influence or Exchange

Views on how Adena and Hopewell influences affected ancient people of New York have changed over time. As elsewhere across the continent, one of the earliest views of these sites was that they belonged to the great "Mound-builder Cultures" that had long ago existed before being displaced by the "savage" Indians known to Euro-American settlers of the nineteenth century. Despite evidence to the contrary, this view held sway for a long period. Squier (1849) indicated that it was likely that the works of New York should be attributed to the Iroquois and their predecessors. However, others continued to hold the belief that a now extinct race had erected these monuments before being displaced by Native Americans (Larkin 1880). With the definitive work of Thomas and the Bureau of American Ethnology (1894), indisputable evidence that the mound-builders were actually the ancestors of the American Indians laid many of these arguments to rest. During the early twentieth century, inquiry turned to identifying the connections between these various forms of moundbuilding and historically known groups. This resulted in the identification of a variety of traits in the New York sites that suggested a connection with the sites in Ohio. Since the middle of the twentieth century, a main focus of investigation has been on determining the nature of the relationship between the Ohio sites and those in New York.

Early on, the relationship was evident, but the mechanisms for the connection were not understood. By the 1950s Ritchie and Dragoo (1959, 1960) developed a theory for the presence of Adena traits not only in New York, but throughout the east. Based on an examination of the similarities and differences between the various eastern expressions of Early Woodland mortuary ceremonialism and those of the homeland Adena, and a consideration of the radiocarbon dates available at that time, Ritchie and Dragoo developed a theory based on migration and displacement. This theory suggested that in the Adena homeland there was increasing pressure and competition from an expanding Hopewell

culture. According to this scenario, the displaced Adena populations migrated eastward along a variety of routes leading them to areas as diverse as the Chesapeake Bay through Lake Champlain. These refugee groups carried with them their material culture and ideology which they continued to utilize. These refugees eventually assimilated into the various local cultures they encountered. During this process they deposited examples of their material culture in mortuary sites as they traveled eastward, eventually depleting their supply, so that this evidence of their presence ended. This theory postulated that the farther from their homeland they traveled, the fewer Adena artifacts they would have left. Additionally, this movement resulted in a breakdown of the socio-political institutions that had allowed the coordination of effort needed to construct typical Adena mounds. As a result, they began to utilize natural knolls and hillsides for mortuary sites.

Additional study revealed many problems with this analysis, not the least of which was that as more radiocarbon dates became available, it became evident that many of the eastern sites were just as old, if not older, than many sites in the heart of Adena territory. It was also noted that the assumption that sites further east would have fewer numbers of exotic artifacts was not true (Grayson 1970; Kirk 1998; Thomas 1970). Thomas (1970) and others (Fitting and Brose 1970) suggested that the connection was really one of large scale trade. Although the specifics of the suspected formalized trade network were not detailed, Thomas (1970) believed that various populations participated in this trade network to varying degrees of intensity at various times. Further, he thought that this was not a network developed specifically for this Adena interaction, but was actually a new facet to a longstanding pre-existing network, that survived after the Adena period.

In 1976, Dragoo accepted trade as the mechanism for the transmission of the items, but he still believed that there needed to be some ideological framework driving the desire to trade in these items and the similarities in the way they were used in mortuary contexts. He argued that all participants in this trade were part of a Northeast "Cult of the Dead." His interpretation was that this cult was a widespread religious movement characterized by elaborate treatment of the dead (Dragoo 1976).

More recently it has been postulated that the "Cult of the Dead" concept is too simplistic and that more detailed economic and ideological factors probably played a role in establishing this trade. Additionally, it now appears clear that neither the trade network, nor the widespread concepts of mortuary ceremonialism originated with Adena. Rather, both appear to have been in place reaching back to the Archaic period, and exhibiting ties to the Glacial Kame and other archaic traditions (Heckenberger et al. 1990; Loring 1985).

In contrast to the debate regarding the Adena/Middlesex connection, there has been little discussion of the mechanisms for the presence of Hopewell material in New York. Ritchie has suggested that those New York sites that can definitely be shown to have connections to Hopewell probably represent a limited manifestation of Hopewell people and ideas that entered New York and fused with locally resident cultures. However, no mechanism for this Hopewell presence is postulated. Originally, Ritchie had hypothesized that actual branches of Hopewell populations from the major centers of Ohio had penetrated into western New York and created the influence behind these mounds (Ritchie 1938b). However in later years, he backed off of this belief and indicated that he was not sure what the mechanism had been and simply considered these mounds to represent a limited Hopewell influence in New York (1980:216). Ritchie does suggest that many of the mound sites described in early accounts of western New York may not actually be related to Hopewell, but may more likely be Adena-like or to represent examples of an "intrusive Mound Culture." Unfortunately, he was unable to find sufficient data to address this question for many of the mounds.

It appears that the same mechanisms that were in play regarding the Middlesex/Adena presence in New York, may have been at play in the creation of the Hopewell influenced mounds as well. That is, some form of regional trade was operating that allowed the flow of goods and ideas between the Adena/Hopewell heartland and more peripheral areas like New York.

In the 1960s-70s, within the concept of a Hopewell Interaction Sphere, it was suggested that while true Hopewell culture did not extend outside of its homeland, many of the ideological concepts of Hopewell were shared and dispersed across the Eastern Woodlands, most likely as a result of trade and interaction (Caldwell 1964; Struever 1964, 1968). Caldwell proposed that distinct regional societies were participating in an exchange of ideas on an inter-regional level and that this "cross fertilization" allowed the rapid expansion in complexity of Hopewell influenced cultures (1964). Additionally, he pointed out that this phenomenon was not limited to the Hopewell period, but in reality had existed and stimulated cultural evolution in many areas of the world. Caldwell noted the importance of the mortuary component to this interaction and suggested that this primarily ideological realm (as opposed to the secular activities of food gathering and shelter) was the basis for the interaction between regions. He noted that particular artifact types and burial practices appeared to have been developed within specific regions, and that their inter-regional spread

was a result of the interaction sphere activities. Throughout this work, Caldwell does not directly mention trade of raw material or finished projects as the driving force, but rather places importance on the exchange of ideology and innovation, with the trade in associated material items simply being a result of the process.

In contrast, Struever focused on why the interaction sphere developed in the first place (1964) and looked toward economic factors. In Struever's view the roles of ideology and trade were reversed. Struever saw the driving force as changes in food production (greater utilization of the mud flat resources) that resulted in population increase. This in turn, led to a need for new forms of social organization and interaction, which led to increased inter-regional interaction and trade. As a result of this increased interaction, ideas were able to spread and develop on a wider scale. Struever would later attempt to describe how the system actually operated (Struever and Houart 1972). In this work, the authors set forth a model that suggested that the trade within the Hopewell Interaction Sphere took place in a formalized manner with distinct trading centers arranged in a hierarchical structure. However, this model was not tested as part of Struever and Houart's work.

Seeman (1979) actually examined the Struever-Houart model by examining both raw material and finished artifacts that were considered common items within the Hopewell Interaction Sphere and plotting where these items originated and where they were eventually dispersed. Seeman broke the Hopewell world into 8 separate regions based on ceramic affinities and other non-mortuary expressions. He collected data on 21 raw material types and 47 types of finished items from the sites within each of these 8 regions; he then conducted a factor analysis to determine if he could find any correlations between regions or between sites within regions. While the results of this analysis showed some interesting patterns of interregional trade, it was clearly evident that not all regions had equal access to all materials or finished projects. Additionally, the analysis showed that in several cases, individual sites revealed associations that did not even extend to other sites within the same region. As a result of this work, Seeman concluded that Struever and Houart's hypothesized hierarchical and formalized trade network did not appear to represent the mechanisms behind the Hopewell Interaction Sphere.

A Search for New Data - Patterns in New York Mounds

A search of the literature for references to mound sites in New York revealed that very little has been written on these features since Ritchie's redefinition of the Squawkie Hill phase in 1965 (1980). This can be attributed to several factors. First, as noted by Ritchie and others, the majority of these features in New York were long ago destroyed, either by intentional digging activity often specifically to remove the contents, or through plowing and other landscape altering activities (gravel and sand mining, etc.). Second, given the dearth of information on these features, there has been little new information with which to work. Third, Ritchie has long been considered "the authority" on archaeological matters in New York, so without new information to examine, it appears that no one has seen reason to re-evaluate Ritchie's work. Finally, with the implementation of the Native American Grave Protection and Repatriation Act of 1990 (NAGPRA) (NAGPRA 2003), many archaeologists have turned away from examining mortuary sites in order to avoid the issues associated with that act.

An examination of Ritchie's work revealed only a handful of professionally excavated sites on which his conclusions were based. However, a search of his sources continually indicated that many more mounds had existed and that, at least minimal, descriptions of some of them may exist scattered around in less well known sources. A search of some of the older source material (Squier 1849; Thomas 1894; Parker 1920) suggested that there may be descriptions of many of these mounds in local histories, newspapers, and accounts of papers presented at local historical societies. As these sources were located, it became evident that while many of these descriptions were minimal and sparse in details, they do exist. It is suspected that a concerted effort would be able to uncover additional examples.

For the current work, it was possible to obtain some level of information on 44 mound locations. The locations of some of these are well established, while for others, information is very sketchy. Table 1 presents basic data on the sites utilized in this study. Several of these locations are reported to have originally had multiple mounds, but at this point the available information did not allow for an accurate count to be determined, so they have been lumped together. At other locations, there may be good information on one or two mounds, while the others are not as well described. As long as it was possible to identify separate mounds, and the number present, each was identified separately for this study.

While the use of trait lists to identify cultural phenomenon (such as Adena and Hopewell) has been shown to have limited utility, given the nature of the data available to work with, a listing of the items and features noted for each site was seen as the only way to do a preliminary analysis of the data. After reviewing the initial data, it appeared that several artifact classes and structural features were present at a number of mounds and had the potential to provide comparative data. The structural features included:

Table 1. Mound Sites in New York.

Site	Location	Reference
Aurora Mound Group	1 mile north of village	Larkin 1880
Killbuck	Cattaraugus Co.	Carpenter 1950b
Vandalia 1	Cattaraugus Co.	Carpenter 1950b
Vandalia 2	Cattaraugus Co.	Carpenter 1950b
Vandalia 3	Cattaraugus Co.	Carpenter 1950b
Vandalia 4	Cattaraugus Co.	Carpenter 1950b
Vandalia 5	Cattaraugus Co.	Carpenter 1950b
Vandalia 6	Cattaraugus Co.	Carpenter 1950b
Cornnplanter Island Mound Group	in vicinity of Cornplanter Island	Larkin 1880
Cold Spring 1	500 feet west of river	Larkin 1880
Olean 1	Village Olean	Larkin 1880
Wheatland	Monroe Co.	Carpenter 1950a
Buffalo Creek Mounds	Erie County	Larkin 1880
Cassadaga Lake Mound	near northern shore of the Lake, Chautauqua County	Larkin 1880
Cain Mound	Erie Co. ; Gowanda	Ritchie 1980; Glamm 1957
Cattaraugus Reservation Mound Group	north side of Creek on Reservation	Larkin 1880
Cattaraugus Reservation Mound Group Mound #1	north side of Creek on Reservation	Larkin 1880
Cattaraugus Reservation Mound Group Mound #2	north side of Creek on Reservation	Larkin 1880
Chautauqua Lake Mounds 1 and 2	eastern shore of lake, near Dewitville, Chautauqua county	Larkin 1880
Napoli	"near summit of a hill, 1/2 mile west of the narrows" Town of Napoli	Larkin 1880
Cold Spring 2	two miles from Allegheny	Larkin 1880
Cold Spring 3 / William Brown Mound	Farm of Wm. Brown (1879) - two miles from Allegheny	Larkin 1880
Poland	Chautauqua	Carpenter 1950b; Thomas 1894; Parker 1922:87
Number of Mounds	Towns of Leon and Conewango	Larkin 1880
Randolph	Village of Randolph	Larkin 1880
Randolph -2	Village of Randolph	Larkin 1880

Drainage	Description
East Branch Cazenovia Creek	?
Allegany River	35 ft diameter built on slope
Allegany River	3 ft high by 32 ft diameter
Allegany River	low lying tumulus eroding into river
Allegany River	no info provided
Allegany River	no info provided
Allegany River	no info provided
Allegany River	no info provided
Allegany River	formerly a number of tumuli:, but from ancient cultivation they were now leveled down
Allegany River	200 ft circumference (32 ft diameter?) by 20 ft high
Allegany River	40 by 60 ft by 10 feet high
Blue Pond	
Buffalo Creek	several mounds have been explored
Cassadaga Lake	though reduced by frequent plowing - still 4-5 feet high and 3-4 rods (50-65 ft) in diameter. Said to have been 12 ft high when first seen.
Cattaraugus Creek	30 ft diameter on a sloping hillside
Cattaraugus Creek	Groups of mounds "never disturbed" by 1880 (size given of two - "others of less interest in every direction"
Cattaraugus Creek	54x36 ft by 15 ft high
Cattaraugus Creek	120 ft circumference (20 ft diameter?) by 16 ft high
Chautauqua Lake	both about 66 ft diameter by 6 feet high
Clear Creek (Conewango)	120 ft circumference (20 ft diameter) by 16 ft high
Coldspring Creek (Allegany)	Not described, untouched at this time
Coldspring Creek (Allegany)	100 ft circumference (15 ft diameter) by 10 ft high
Conewango	mound with embankment and ditch east facing gap 30 feet wide /"some framework had enclosed the dead"
Conewango	no other description
Conewango	none provided
Conewango	mica blocks 2 feet below surface - no mound noted

Table 1. Mound Sites in New York (continued).

Site	Location	Reference
Caneadea	Allegheny Co.; Hume?	Trubowitz p.c. Notes from UB files
Frog Mound	Confluence of Fall Brook and Genesee River, 1 mile south (north) of Jones Bridge Rd.	Graham 1984
Geneseo 1	Livingston Co.	Ritchie 1938b; 1944, Thomas 1894 Wadsworths Big Tree Farm
Geneseo 2 (Thomas exc)	Livingston Co.	Ritchie 1938b; 1944, Thomas 1894 Wadsworths Big Tree Farm
Munson Mound	West of Genesee River, opposite Mary Jemison Home	Munson 1835
Squawkie Hill 1	Livingston Co.	Ritchie 1938b;
Squawkie Hill 2	Livingston Co.	Ritchie 1938b;
Squawkie Hill 3	Livingston Co.	Ritchie 1938b;
Squawkie Hill 4-?	Livingston Co.	Ritchie 1938b;
Lewiston	Niagara	Ritchie 1980
Bamber Mound 1	4 miles to Lake Ontario/1.1 miles downstream of Waterport Dam	Vanderlaan 1990
Bamber Mounds 2 & 3	1.1 miles downstream from Waterport Dam, 4 miles form Lake Ontario	Vanderlaan 1990
Red House Valley	vicinity of Red House Valley	Larkin 1880
Bluff Point Mound	Cayuga Co. (Montezuma)	Carpenter 1950a
Kipp Island	Seneca	Ritchie 1944, Carpenter 1950a
Tonawanda Mounds	Erie County	Larkin 1880
Lewiston Mounds 1 and 2	Niagara County	Larkin 1880
Rector	Wayne Co.	Ritchie 1980

1) Evidence that the floor of the mound had been prepared by removal of the original topsoil;
2) some type of intentional stone construction.

At a few sites, where detailed notes are available, it is obvious that stone was utilized in a variety of ways during mound construction. For example, at Squawkie Hill 2, the central grave was enclosed in a stone lined crypt, and two distinct rings of stone, one of slabs and the other of cobbles, were located around the outer edges of the mound (Figure 3). Similar construction appears to be present at some other locations, but the data available is insufficient to determine the exact nature of the stonework, making it difficult to determine if the structures at Squawkie Hill 2 are idiosyncratic or representative of a cultural norm. Unfortunately, for mounds where evidence of stone work or floor clearing was not noted, we cannot assume that it was not present, since many of the data sources consist of general observations made after the sites were destroyed.

Whenever it could be determined, data was also collected on overall number and types of burials present in each mound (primary, secondary or cremation). Similar to

Drainage	Description
Genesee River	60-70 ft diameter?; 4-5 ft high
Genesee River	35 x 28 ft by 3 ft high
Genesee River	42 by 26 ft by 3 ft high
Genesee River	40-45 ft diameter by 4 ft high
Genesee River	90 ft circumference, 30 ft diameter, 8 ft high
Genesee River	30 ft diameter 4 ft high
Genesee River	29x26ft x2 ft high
Genesee River	8 ft diameter - heavily plow damaged with no visible elevation left
Genesee River	unknown number of additional mounds - 100 rods from 1-3. Destroyed 1899-1900. material found 7 feet below surface
Niagara river	70 x 60 ft x 6 ft high
Oak Orchard Creek	45 x 40 ft by 3 ft high
Oak Orchard Creek	no longer extant
Red House Brook (Allegany River)	not described
Seneca River	8x5 ft x30 inches high
Seneca River	NO MOUND - 9 graves found
Tonawanda Creek(?)	"also (several?) at Tonawanda
Niagara River	formerly 2 large mounds each of which contained human remains
Crusoe Creek	30-40 ft diameter x 2 ft high

the data on structural features, this data is incomplete and difficult to use in a deterministic fashion. Information was also collected on the types of artifacts reported for each mound. Eight general categories were identified for which data could be collected: mica, cache blades; gorgets, copper items, shell beads, pearl beads, tubular pipes (stone tubes) and platform pipes. Here again, while the presence of an object could be recorded, the absence of an item in this inventory should not be taken as evidence that it did not exist at the site, but rather only that it was not reported in the general description of a site. It is also important to point out **that in several cases a broad terminology is used because this is the type of terminology utilized in the original reporting. For example, the category of copper items included celts, ear spools, awls, beads and plates. All of these subcategories have been reported at various sites, but the reports for many sites simply indicate "copper tools" or "objects of copper" making it impossible to be more precise. In order to be as accurate as possible in this review, the general term of "copper items" was used so as not to introduce non-comparable data. A listing of these categories and which were present at each site is presented in Table 2.**

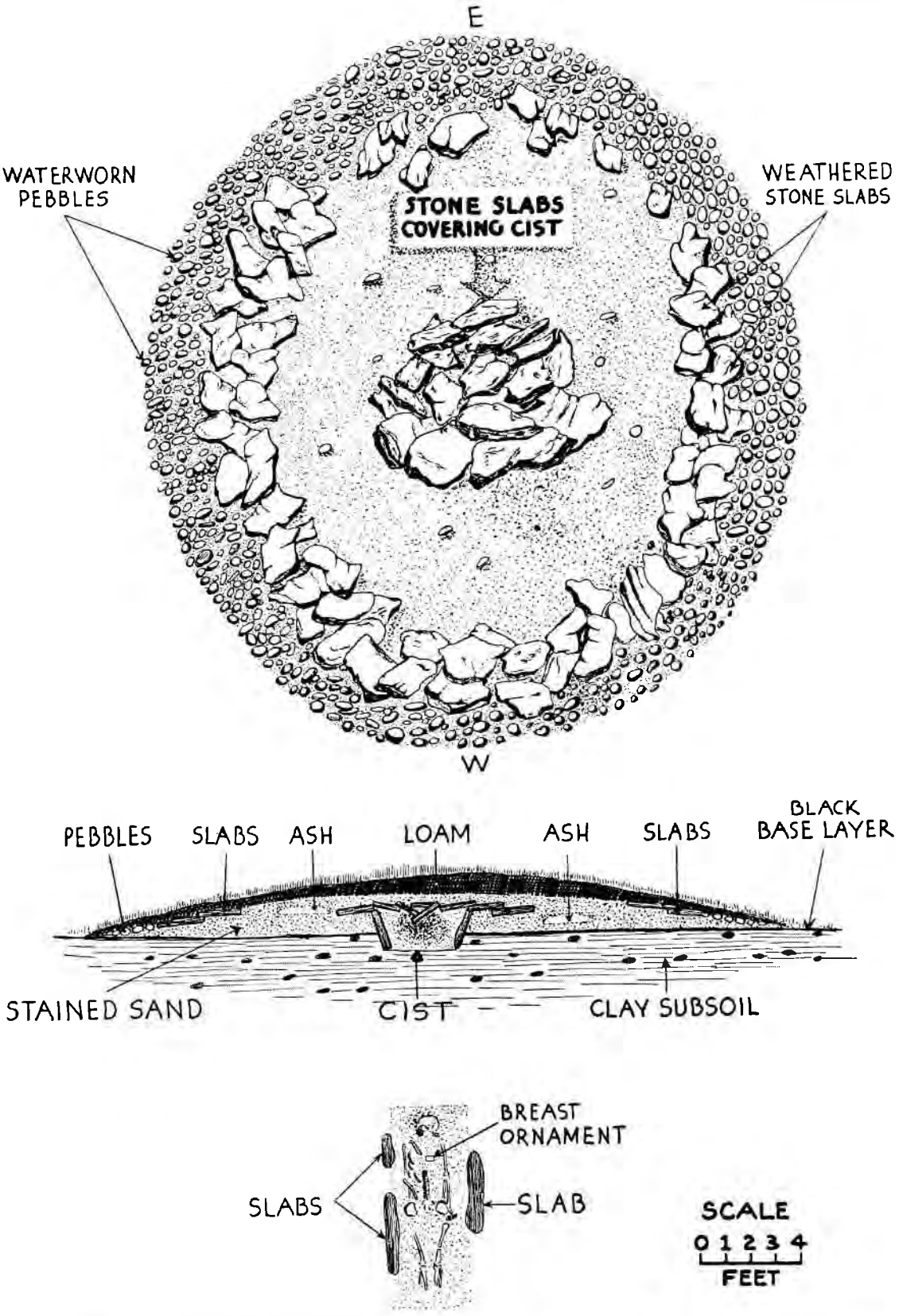

Figure 3. Squawkie Hill Mound 2 depicting use of stone in mound construction (from Ritchie 1938:Plate 4). With permission of the Rochester Museum & Science Center.

The sites utilized in this study come from the full range of areas in New York reported to have contained mounds. Each example appears to have been located on or adjacent to a substantial watercourse. In order to examine the sites in a way that may reflect conditions that helped to organize their builders, the sites have been organized into seven major drainage areas:

1. Ten of the sites are located along or directly adjacent to the Allegany River, while three others are also in the Greater Allegany drainage with two located on the Cold Spring Creek and one on the Red House Brook, both near confluences with the Allegany.

2. Nine mound locations are reported along the Genesee River itself while a tenth is located at Blue Pond along the Oatka Creek, a tributary to the Genesee. These Genesee River sites include the Squawkie Hill, Geneseo, Frog and Caneadea Mounds, some of the best documented examples in this study.

3. The Conewango Creek drainage, while a tributary to the Allegany itself, is large enough to be viewed as a separate drainage. This system produced seven sites, including four along the Conewango Creek directly and one each along Cassadaga and Chautauqua Lakes and one along the Clear Creek.

4. The Cattaraugus Creek empties directly into Lake Erie and is the location of four sites in this sample.

5. Likewise the Niagara Region provides four locations with one each being located along the Niagara River, Buffalo Creek, East Branch of the Cazenovia Creek and Tonawanda Creek.

6. The Seneca River represents the eastern-most identified mounds included in this study. All of the Seneca River sites are in the vicinity of Savannah and the Montezuma-Crusoe Marsh complex.

7. The Oak Orchard Creek empties directly into Lake Ontario west of Rochester and the mouth of the Genesee River. Two sites are located along this relatively small drainage.

Looking at a map of the region it is apparent that these drainages are for the most part relatively close to each other, and taken together, drain a majority of the area. There are several large drainages in the area where it might be expected that additional mound sites would be located although none have been identified to this point. It is suspected that a more detailed examination of local sources would reveal that mounds were located in these areas as well.

Tables 3 and 4 present summaries by region for each of the categories of information that could be collected. These numbers reflect the number of sites where each variable occurred, not the number of individual cases. This measure was utilized due to the poor quality of much of the source data, which failed to indicate numbers of items even in those cases where the presence of an artifact type was indicated. It was hoped that patterns would emerge that might suggest regional variation or lack of variation, indicating that all of the regions participated in a similar system, or that patterns indicating a substantial tie to the rest of the Hopewell world would be identified.

While some patterns appear to be emerging, a closer look suggests that they are the result of poor quality data rather than any real variation that can be measured in this fashion. In all categories, the Genesee area seems to be the richest, having produced at least one site with each of the artifact types considered. This area also provided evidence that all forms of burial were employed and that substantial stone structures and floor preparation were utilized as well. In contrast, the Conewango region, despite having a relatively large number of sites, appears to have produced only one of the artifact classes examined - mica. It seems highly unlikely that this reflects reality; it seems more likely to be a result of the poor reporting for sites in this area. Much of the data for the Conewango area was gleaned from an 1880 publication (Larkin 1880) that did little more than list general location and rough descriptions of mounds. This source is important for showing the distribution of these features; however it provides little information that would allow an in-depth analysis. The fuller data set for the Genesee region is a result of the more substantial scientific investigation of the mounds in this area, and the more detailed reporting that resulted from these investigations. It appears that considering this pattern of poor reporting for many of the sites, any analysis similar to the one attempted here is likely to be futile.

What Next?

Does the nature of this poor data indicate that we will never be able to examine the Hopewell connection in New York in any more detail than the simplistic analysis provided by Ritchie in 1965? A first response would be no. As shown by Fox's recent examination of possible meaning for the varied stone layers that bound the Squawkie Hill mounds and

Table 2. Traits at Mounds in New York.

Site	Drainage	Burials	Cremation	Secondary	Primary	Floor cleared	Various stone	Mica	Cache blades	Gorgets	Copper items	Shell beads	Pearl beads	Tubular pipe	Platform pipe	C^{14} dates	Comments
Aurora Mound Group	East Branch Cazenovia Cr							t			t						"other relics peculiar to the mounds located in the valley of the Ohio"
Killbuck	Allegany River	9		2	7		t			t	t						
Vandalia 1	Allegany River	at least 11	10		1	t	t		t	t	t						
Vandalia 2	Allegany River	?	Y						t	t							
Vandalia 3	Allegany River																
Vandalia 4	Allegany River																
Vandalia 5	Allegany River																
Vandalia 6	Allegany River																
Cornnplanter Island Mound Group	Allegany River																
Cold Spring 1	Allegany River	cart loads of bone							?	t	t						
Olean 1	Allegany River	yes															
Wheatland	Blue Pond		1				t	t			t	t					
Buffalo Creek Mounds	Buffalo Creek																
Cassadaga Lake Mound	Cassadaga Lake	large number															
Cain Mound	Cattaraugus Creek		8-?		5	1	t			t		t					
Cattaraugus Reservation Mound Group	Cattaraugus Cr.	Not excavated no info															
Cattaraugus Reservation Mound Group Mound #1	Cattaraugus Cr.	Not excavated no info															
Cattaraugus Reservation Mound Group Mound #2	Cattaraugus Cr.	Not excavated no info															
Chautuaqua Lake Mounds 1 and 2	Chautauqua Lake																
Napoli	Clear Creek (Conewango)	limited exam															6 inch projectile point
Cold Spring 2	Coldspring Creek (Allegheny)																
Cold Spring 3 / Wm. Brown Mound	Coldspring Creek (Allegany)	yes	yes														

Table 2 (continued). Traits at Mounds in New York.

Site	Drainage	Burials	Cremation	Secondary	Primary	Floor cleared	Various stone	Mica	Cache blades	Gorgets	Copper items	Shell beads	Pearl beads	Tubular pipe	Platform pipe	C^{14} dates	Comments
Poland	Conewago	at least 8 possibly 13	3		10	t	t			t							
Number of Mounds	Conewango																
Randolph	Conewango	3						t									217 cache blades found nearby. Along with mica and stone axes
Randolph -2	Conewango																
Caneadea	Genesee River	2	2			t		t	t	t	t			t	t	1780 BP±200 (Y-1895)	C14 Calib - 202 BC-657 AD
Frog Mound	Genesee River	8	2	3	3	t	t		t	t						3710 B.P. ±100 (Y-1894)	C14 calibration 2355-1878 B.C.
Geneseo 1	Genesee River	4		2	2	t	t		t	t					t		
Geneseo 2 (Thomas exc)	Genesee River	1			1			t			t						
Munson Mound	Genesee river	3			3		t		t		t						indeterminate stone pipe found, 1/8th of mound excavated
Squawkie Hill 1	Genesee River	4			4		t				t	t	t		t		
Squawkie Hill 2	Genesee River	1			1		t		t		t						
Squawkie Hill 3	Genesee River	1	1					t	t								
Squawkie Hill 4-?	Genesee River								t		t				t		
Lewiston	Niagara river		t	t			?				t					1790 B.P. ±80 (Y-1276)	burials at all levels and locations C14 calib - 68-418 AD
Bamber Mound 1	Oak Orchard Cr								t	t							Artifacts at Rochester Museum
Bamber Mounds 2 & 3	Oak Orchard Cr							t									previously destroyed no further info provided.
Red House Valley	Red House Br. (Allegany River)		?						t			t					double barbed copper points
Bluff Point Mound	Seneca River	1			1	t			t		t						other burials nearby
Kipp Island	Seneca River	9															Much detail available but not a mound
Tonawanda Mounds	Tonawanda Creek(?)																
Lewiston Mounds 1 and 2	Niagara River	yes									t						
Rector	Crusoe Creek	15						t	t	t	t	t					goods found in separate pits form the burials/ sprinkled with red ochre

Table 3. Summary of Structural elements and burial types by region.

Region	Sites	Floor Cleared of topsoil	Some type of stone construction	Cremation	Secondary	Primary
Allegany	13	2	2	3	1	2
Cattaraugus	4	1	–	–	1	1
Conewango	7	1	1	1		1
Genesee	10	3	6	4	2	6
Niagara	5		1	1	1	–
Oak Orchard	?		–	–	–	–
Seneca	3	2	–	–	–	1
Totals	44		10			11

Table 4. Summary of artifact types reported.

Region	Sites	Mica	Cache blades	Gorgets	Copper items	Shell beads	Pearl beads	Tubular pipe	Platform pipes
Allegany	13	1	4		4				
Cattaraugus	4		1		1				
Conewango	7	1		1					
Genesee	10	4	7	3	7	2			4
Niagara	5	1		3					
Oak Orchard	?	1	1	1					
Seneca	3	1	?	1	?	1			
Totals	44	9	15	10	17	3			

several others (Fox 2004), even with limited information, interesting questions can be proposed and examined. In that work, Fox considered the potential that the stones ringing the mounds were meant to symbolize lakefront shorelines and he considers how this symbolism may be part of a broader regional pattern of representations of the Turtle Island/Earth Diver creation story prevalent throughout the Eastern Woodlands. Even though the lack of data from many sites makes it more difficult to test the hypothesis, Fox's work illustrates that innovative research can be undertaken despite limited data.

Additionally, as the current paper shows, it is still possible to collect more data on previously disturbed sites. We need only to find better data and more detailed early reports that may be buried in the archives of local historical societies or libraries. It is also possible that the remains of additional mounds may remain to be scientifically excavated. While the largest, most visible mounds are likely to have been plowed under long ago, experience has shown in several cases that the lowest levels of some have survived. It is also possible that some of the lower mounds may still exist in forests and thickets that have not been subjected to extensive plowing. The Frog Mound along the Genesee River is an example of this type of preservation. This mound survived intact and relatively undisturbed in a thicket near the Genesee River until the 1950s. Given the apparent prevalence of these mound features in early descriptions of western New York, it is possible that other such small mounds have survived.

However, the archaeologist of the twenty-first century must address the concerns of Native Americans for the disturbance of their ancestral mortuary sites in a way that the profession never has before. With the passage of NAGPRA, the federal government recognized that Native Americans had the right to demand consideration of their "ownership" of these types of sites and their contents. NAGPRA formalized a process that makes it unlikely that many more mortuary sites will be professionally examined, either on federal property, or by institutions receiving federal money. While NAGPRA does not apply directly to private and state lands or monies, most institutions have expressed a desire to comply with the spirit of NAGPRA and have begun to reconsider any projects with the potential to disturb Native American burials or sacred sites. The result of this is that, unless a site is directly threatened by some outside factor and avoidance of the site is not an alternative, it is unlikely

that scientific study of any additional burial mound sites will take place in the foreseeable future. While these conditions may not deter some amateur archaeologists and looters, it is unlikely that either of these groups will be able to provide the detailed excavation and analysis that would be needed to fully investigate such complex sites.

Fortunately, mortuary sites were not created in a vacuum. While mortuary mounds may be the most spectacular sites associated with these Early and Middle Woodland cultures, they do not represent the entirety of potentially relevant data. One of the most important aspects of mortuary sites is that they represent a relatively narrow time period, with a specific and easily recognizable function. In contrast, living sites are often multi-component and multi-task sites, making their analysis and assignment to a specific culture more difficult, though not impossible.

No living sites have ever been directly associated with any of the mound sites. Although areas surrounding them are often described at being rich in artifacts, no clear connection has been made. Other non-mound sites that contain human remains have been identified for the same temporal period throughout New York, and have been attributed to the generalized Point Peninsula Tradition. It seems likely that the mound sites should also be attributed to this tradition, although they obviously represent a different aspect of the society than that typically found at other mortuary or living sites. It seems that the best approach to defining where the mound sites fit into overall occupation of the area will be to examine other aspects of the society in more detail, searching for clues that may link them to the mounds, or to the trade/interaction that would have been necessary to obtain the exotic goods.

References Cited

Beauchamp, William W.
1902 *Metallic Implements of the New York Indians*. New York State Museum, Bulletin 55. The University of the State of New York, Albany, New York.

1903 *Metallic Ornaments of the New York Indians*. New York State Museum, Bulletin 73. The University of the State of New York, Albany, New York.

Caldwell, Joseph R.
1964 Interaction Spheres in Prehistory. In *Hopewellian Studies*, edited by Joseph Caldwell and Robert Hall. Illinois State Museum, Scientific Papers No. 12:133-143. Springfield, Illinois.

Carpenter, Edmund S.
1950a Four Hopewellian Tumuli in Western New York. *Journal of the Washington Academy of Sciences* 40(7):209-216.

1950b Five Sites of the Intermediate Period. *American Antiquity* 15(4):298-314.

Cheney, T. Apoleon
1865 *18th Report of the New York State Cabinet of Natural History*. Albany, New York. Cited in Parker 1920.

Clinton, De Witt
1818 A Memoir on the Antiquities of the Western Parts of the State of New-York. Read Before the Literary and Philosophical Society of New-York. Printed by I.W. Clark, Albany, New York.

Dragoo, Don W.
1976 Adena and the Eastern Burial Cult. *Archaeology of Eastern North America* 4:1-9.

Fitting, James E. and David Brose
1970 The Northern Periphery of Adena. In *Adena: The Seeking of an Identity*, edited by B.K. Swartz, pp. 29-55, JR. Ball State University, Muncie, Indiana.

Frey, Samuel L.
1879 Were they Moundbuilders? *American Naturalist* 13(10): 637-644.

Fox, William A.
2004 Islands of Creation, Islands of Rebirth. *The Bulletin*, Journal of the New York State Archaeological Association 120:47-57.

Glamm, A.C., Jr.
1957 The Cain Mound (Ctg. 5-2) Erie County, New York. *The Bulletin*, The New York State Archeological Association. 9:8-10.

Graham, Robert J.
1984 Frog Mound—An Adventure in Antiquity. *The Iroquoian*, Newsletter of the Lewis Henry Morgan Chapter of the New York State Archaeological Association 9:8-23.

Granger Joseph E.
1978 *Meadowood Phase Settlement Pattern in the Niagara Frontier Region of Western New York State*. Anthropological Papers No. 65. Museum of Anthropology, University of Michigan. Ann Arbor, Michigan.

Grayson, Donald K.
1970 Statistical Inference and Northeastern Adena. *American Antiquity* 35:102-104.

Heckenberger, Michael J., James B. Petersen, Louise A. Basa, Ellen Cowie, Arthur Speiss and Robert E. Stuckenrath
1990 Early Woodland Period Mortuary Ceremonialism in the Far Northeast: A View From the Boucher Cemetery. *Archaeology of Eastern North America* 18:109-144.

Kirk, Matthew
1998 Early Woodland Ceremonial Sites in Eastern New York. Unpublished Masters Thesis, University at Albany/SUNY, Albany, New York.

Larkin, Frederick
1880 *Ancient Man in America: Including Works in Western New York, and Portions of Other States, Together With Structures in Central America*. Published by the Author, Randolph, New York.

Loring, Stephen
1985 Boundary Maintenance, Mortuary Ceremonialism and Resource Control in the Early Woodland: Three Cemetery Sites in Vermont. *Archaeology of Eastern North America* 13:93-127.

Mackey, Douglas (for Hartgen Archaeological Associates, Inc.)
1991 Stage II Resource Recovery Investigations of IAS-1, Area B, An Early Woodland Meadowood Phase Component in the Town of Half-Moon, Saratoga County, New York. Manuscript on file, New York State Office of Parks, Recreation and Historic Preservation, Waterford, New York.

Maxson, Richard, N.
2005 A Meadowood Site in Livingston County, New York. *The Bulletin*, Journal of the New York State Archaeological Association 121:1-9.

Mills, William C.
1902 Excavations Of The Adena Mound. *Ohio History* 10:452-479. Available online from the Ohio Historical Society at: http://publications.ohiohistory.org/.

Munson, William B.
1835 Description of a Mound: Recently Discovered on the Bank of the Genesee River. *The Genesee Farmer*. July 14, 1835. Reprinted in *The Iroquoian*, Newsletter of the Lewis Henry Morgan Chapter of the New York State Archaeological Association 17:19.

NAGPRA
2003 *Native American Graves Protection and Repatriation Act*. Code of Federal Regulations Title 43, Pt. 10, 2003 ed. Available at http://www.nps.gov/history/nagpra/MANDATES/43_CFR_10_10-1-03.pdf

Parker, Arthur C.
1920 *The Archaeological History of New York* Part I. New York State Museum Bulletin Nos. 235, 236. The University of the State of New York, Albany, New York.

Parsons, Samuel
1786 Drawing of Indian Mounds in Ohio, with Notations by Samuel Parsons sent to Ezra Stiles, May 3, 1786. In The Thomas Jefferson Papers at the Library of Congress, Washington, D.C.

Powell, J. W. (Director)
1894 Twelfth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution, 1890-1891. Smthsonian Institution, Washington, D.C.

Ritchie, William A.
1938a A Perspective of Northeastern Archaeology. *American Antiquity* 4(2):94-112.

1938b Certain Recently Explored New York Mounds and Their Probable Relation to the Hopewell Culture. Vol. VIII (3). *Researches and Transactions of the New York State Archaeological Association*, Rochester, New York.

1944 *The Pre-Iroquoian Occupations of New York State*. Rochester Museum Memoir No. 1. Rochester Museum of Arts and Sciences, Rochester, New York.

1951 A Current Synthesis of New York Prehistory. *American Antiquity* 17(2):130-136.

1980 *The Archaeology of New York State*. Revised edition. Harbor Hill Books, Harrison, New York (originally published in 1965).

Ritchie, William A. and Don W. Dragoo
1959 The Eastern Dispersal of Adena. *American Antiquity* 25(1):43-50.

1960 *The Eastern Dispersal of Adena*. New York State Museum and Science Service Bulletin Number 379. New York State Education Department. Albany, New York.

Seeman, Mark Frederic
1979 *The Hopewell Interaction Sphere: The Evidence for Interregional Trade and Structural Complexity*. Indiana Historical Society, Prehistory Research Series, Vol. V, No. 2. Indianapolis, Indiana.

Shetrone, H. C.
1920 The Culture Problem in Ohio Archaeology. *American Anthropologist* 22:144-172.

Squier, Ephraim G.
1849 *Aboriginal Monuments of the State of New York: Comprising the Results of Original Surveys and Explorations*. Smithsonian Institution Contributions to Knowledge Vol. II. Smithsonian Institution, Washington, D.C.

Squier, Ephraim G. and E. H. Davis
1848 *Ancient Monuments of the Mississippi Valley: Comprising the Results of Extensive Original Surveys and Excavations*. Smithsonian Institution Contributions to Knowledge Vol. I. New York.

Struever, Stuart
1964 The Hopewell Interaction Sphere in Riverine Western Great Lakes Culture History. In *Hopewellian Studies*, edited by Joseph Caldwell and Robert Hall. Illinois State Museum, Scientific Papers 12:85-106. Springfield, Illinois.

1968 A Re-examination of Hopewell in Eastern North America. Unpublished Ph.D. dissertation, University of Chicago.

Struever, Stuart and Gail L. Houart
1972 An analysis of the Hopewell Interaction Sphere. In *Social Exchange and Interaction*, edited by E. Wilmsen. Anthropological Papers No. 46. Museum of Anthropology, University of Michigan, Ann Arbor, Michigan.

Thomas, Cyrus
1894 Report on the Mound Explorations of the Bureau of Ethnology. *Twelfth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution, 1890-1891*. Smithsonian Institution, Washington, D.C.

Thomas, Ronald
1970 Adena Influence in the Middle Atlantic Coast. In *Adena: The Seeking of an Identity*, edited by B.K. Swartz Jr. Ball State University, Muncie, Indiana.

Thwaites Ruben Gold (editor)
1959 *The Jesuit Relations and Allied Documents*. 73 Volumes. Reprint Pageant Book Company, New York

Vanderlaan, Stanley
1990 Bamber Mound (Ood 7-3). *The Iroquoian*, Newsletter of the Lewis Henry Morgan Chapter of the New York State Archaeological Association 18:33-35.

Van Epps, Percy
1894 The Mutilation of Archaeological Finds. *The American Antiquarian* 16(2):110-111.

1896 An Archaeological Find. *The Museum* 2:156-157.

This paper was peer reviewed upon request of the author.

Cultural Resource Management: A Brief Overview

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Cultural Resource Management (CRM) has often been questioned by scholars, land developers, different cultural groups, and even by archaeologists as to its purpose and relevance within the general field of archaeology. This paper will attempt to provide an overview of the history, rationale, issues regarding state standards, and the effectiveness of conducting cultural resource investigations in New York State. It is the objective here to increase understanding of cultural resource management for individuals interested in or practicing contract archaeology in New York State.

List of Acronyms

APE Area of Potential Effect
ACHP Advisory Council on Historic Preservation
CRM Cultural Resource Management
CFR Code of Federal Regulations
CORP Corps of Engineers
DEC Department of Environmental Conservation
DOT Department of Transportation
EA Environmental Assessments
EISs Environment Impact Statements
EPA Environmental Protection Agency
FAA Federal Aviation Administration
FCA Federal Communication Administration
FHWA Federal Highway Administration
NEPA National Environmental Policy Act
NHPA National Historic Preservation Act
NYAC New York Archaeological Council
NYSOPRHP New York State Office of Parks Recreation and Historic Preservation
SEQRA State Environmental Quality Review Act
SHPA State Historic Preservation Act
SHPO State Historic Preservation Officer
THPO Tribal Historic Preservation Officer
WPA Works Progress Administration

Introduction

Cultural Resource Management (CRM), a term coined by Southwestern archaeologists in 1974 (King as cited in Lipe and Lindsay, 1974:18), can be defined as "the research, preservation and management of cultural resources within a regulatory framework (Neumann & Sanford 2001:231). True awareness of the concept of conservation for America's cultural resources became a part of the public's consciousness in 1800 with the creation of the Library of Congress by President John Adams. President Thomas Jefferson's concept of universality for the nation helped establish the Library of Congress as the National Library, which currently contains 134,517,714 items including the Declaration of Independence and the United States Constitution (http://www.loc.gov/about/mission/). The Library of Congress is the first national repository for managing cultural resource documents essential to American history and democracy.

In 1848 the controversy surrounding the mystery of the Mississippi Valley Mound Builders sparked a congressional mandate stating that the Smithsonian Institution had to determine the origin and the builders of mounds (Neumann and Sanford 2001:5). This federal request essentially prompted the establishment of formal excavation methods for "problem-oriented methodology" for archaeological investigations (Neumann & Sanford 2001:5). By the turn of the century, the Antiquities Act of 1906 provided protection for all prehistoric and historic remains or objects of antiquity unearthed on federal land. The subsequent creation of the National Park Service in 1916 ensured the preservation of federal land reserves and potential archaeological sites.

Additional federal legislation under the Historic Sites Act of 1935 further established battlefields, historic structures and antiquities as archaeological sites. Between 1935 and 1943 President Franklin D. Roosevelt's New Deal incorporated archaeology into the Works Progress Administration (WPA). According to proponents of the WPA, "archaeology was a labor-intensive field that could accommodate a sizeable population of unskilled labor" (Neumann & Sanford 2001:9). WPA archaeology catapulted a movement that stressed archaeological techniques and methods, and helped in the advancement of basic cultural-historical sequences. Neumann and Sanford (2001:9) outlined four aspects of WPA archaeology that raised concerns among practicing archaeologists:

> 1) a perception that government regulators and administrators impose inappropriate bureaucratic expectations;

2) the occasionally slovenly work that took place under deadline conditions;
3) excavation for the sake of excavation and not for solution of research problems;
4) the lack of analysis and publication.

Some would agree that these four concerns were important in the development of how contract archaeology, as well as academic archaeology, is practiced today. Current government oversight, present legislation accepted excavation standards, and report writing are a direct result of these concerns that emerged from the lack of standardized scientific practices prevalent on archaeological sites during the Works Progress Administration efforts of the 1930s and 1940s. The Missouri River Basin Survey program (1945-1969), completed by the Smithsonian Institution, was the prototype for standards of archaeological research. This project established a process for recording research results and analyzing collections, as well as the generation of reports of field research results. "However for archaeology in general, the reporting of results continued to be a problem until the emergence of nonacademic professional archaeology in the late 1960s" (Neumann & Sanford 2001:16).

A system of archiving significant historical documents was established with the 1950 Federal Records Act. In 1966 the federal government passed legislation entitled the National Historic Preservation Act (NHPA), setting the stage for government oversight of all construction and development processes occurring on federal lands, funded with federal dollars or requiring a federal permit (e.g., FAA, FCA, CORP, etc.).

1966 National Historic Preservation Act (NHPA)
(Public Law 89-665; 16 U.S.C. 470 *et seq. Section 1(b)(2)*)

The 1966 National Historic Preservation Act (NHPA) was established to require federal agencies to determine if their actions threatened properties or archaeological sites that could be placed on the list of National Register of Historical Places. This legislation (sparked by Lady Bird Johnson as a part of the Johnson Administration's beautification program) created the National Register of Historic Places, the list of National Historic Landmarks, and the posts of State Historic Preservation Officers, with the intent of preserving historic and archaeological sites through project review and oversight. Additionally, the NHPA required the establishment of an Advisory Council on Historic Preservation, to advise the President and the United States Congress, as well as requiring each federal agency to establish procedures for identifying, inventorying and evaluating the Register Eligibility of historic properties (Neumann and Sanford 2001). This act established a federal mandate requiring that cultural resource investigations be completed as a part of any federal land development and construction process. Eventually, subsequent laws required all land altering activities that would be completed with federal funds to be subject to archaeological survey/work. The 1966 National Historic Preservation Act was the catalyst for cultural resource management. However, it was Section 106 of the Act that caused archaeology to become a "compliance industry" (Neumann & Sanford 2001:29).
Compliance can be interpreted in many ways. For contract archaeologists in New York State working hand in hand with engineers, developers and the New York State Office of Parks Recreation and Historic Preservation (NYSOPRHP), compliance means "doing what the various laws require an agency to do to manage its impact on the cultural environment" (King 1998:10). "Due diligence" or compliance is in the best interest of potential cultural resources with regard to the development's impact. Even when compliance meets resistance or is viewed negatively in the eyes of developers, engineers or private land owners, it is an attentive, standardized, and balanced way to manage impacts on existing and potential cultural resources throughout the nation.

Section 106 Review of the National Historic Preservation Act
Protection of Historic Properties
(36 Code of Federal Regulations Part 800)

Section 106 of the NHPA applies only to federally funded projects. Its main objective is to ensure that cultural resources are preserved or at least documented. Essentially, Section 106 asks the lead federal agency of a construction project to take into account any effects or impacts of their activities on cultural resources in their defined area of potential effect, as well as giving the Advisory Council the opportunity to review, comment and suggest archaeological actions to protect the cultural resources found within the project area.

> The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in

> or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking [Section 106 of NHPA as cited in King 1998:59].

Federal agencies requiring permits that necessitate archaeological assessments may include but are not limited to the following agencies; Department of Transportation (DOT), Department of Environmental Conservation (DEC), Corps of Engineers (CORP), Environmental Protection Agency (EPA), Federal Highway Administration (FHWA), Federal Aviation Administration (FAA) and the Federal Communication Administration (FCA).

Additionally, Section 106 made it clear that not only is it the responsibility of the involved federal agency to determine whether or not the land development is a type of activity that could affect or impact historic properties, it should also be determined if the property/ properties should be included on the National Register of Historic Places or if the property meets the criteria for the National Register. There are four site criteria set forth under the National Register Criteria (Section 36 CFR 60.4). A site is evaluated on these criteria and must satisfy one or more of the following criteria to be considered eligible:

> 1 be associated with events that have made a significant contribution to the broad patterns of our history;
>
> 2 be associated with the lives of persons significant in our past;
>
> 3. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;
>
> 4. have yielded, or may be likely to yield, information important in prehistory or history [Section 36 CFR 60.4 of NHPA].
>
> The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed on the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service (NPS) which is part of the U.S. Department of the Interior [Flaherty et al. 1987:1].

If a property is deemed eligible for inclusion on the *National Register of Historic Places*, the appropriate State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) must be consulted during the evaluation, mitigation and/or avoidance process. If it is determined that the type of development activity will not have an adverse effect on the historic properties, the federal lead agency has no further Section 106 obligations. Flaherty et al. (1987) list some benefits of having a property/site listed on the National Register:

> 1. recognition that the property is significant to the nation
> 2. eligibility for certain federal tax credit/cuts
> 3. consideration in planning for public projects-protection of cultural resources (Flaherty et al. 1987:4).

In the determination of National Register eligibility listed in the National Register Bulletin #16, there are five categories used. They are as follows:

> 1. Objects, i.e., monuments, statues, documents
> 2. Sites, i.e., prehistoric or historic occupants, multi component sites
> 3. Buildings, i.e., churches, houses, post offices
> 4. Structures, i.e., bridge, canal, towpath
> 5. Districts, i.e., objects or building that have a common, uniting theme (Flaherty et al. 1987: 41-42).

An example of a National Register Eligible property is the location of the first meeting place for the Female Charitable Society. Figure 1 exhibits an historical marker located on NYS Route 31, adjacent to Female Charitable Society Site A06709.000080, SUBi 1387 (Hohman 1994). It marks the location of the first meeting of the Female Charitable Society, one of the earliest women's organizations in the United States and reads, "On this hill, in the original house, 31 women organized the Female Charitable Society, second oldest woman's society in the US, July 27, 1817" (see Figures 1 and 2).

1969 The National Environmental Policy Act (NEPA)

The National Environmental Policy Act (NEPA) followed the NHPA in 1969. The NEPA requires environmental Impact Statements for federal jobs to protect the environ-

Figure 1. Historical marker located on NYS Route 31, adjacent to Site A06709.000080 (SUBi 1387) looking southeast.

Figure 2. Existing house foundation Site A06709.000080 (SUBi 1387), looking southwest

ment through the evaluation of proposed federal development activities. The term environment in this usage is interpreted as being both natural and cultural resources. "NEPA regulation includes guidelines for conducting Environmental Assessments (EA) and preparation of Environment Impact Statements (EISs)" Neumann & Sanford 2001:45). The 1969 NEPA added environmental accountability for every involved agency. "NEPA complimented the NHPA through encouragement of impact assessment and evaluation of archaeological sites that may have local or regional importance even if there is no direct national significance" (King as cited in Rosenburg 1981:45).

Often land developers and engineers believe that satisfying the National Environmental Policy Act also satisfies NHPA Section 106 requirements, which is not accurate. The requirement for cultural resources to be recovered and documented before land-altering activities takes place is independent and unrelated to the determination of the National Environmental Policy Act (NEPA) compliance. Of course, there are always exceptions to the rules. The exception to the Section 106 requirements is a revised code to NEPA (Section 36 CFR 800.8) allowing an Environmental Assessment or an Environment Impact Statement to be a "substitute for the specific steps of the 106 process, but the process itself cannot be compromised" (Neumann & Sanford 2001:29).

1980 The New York State Historic Preservation Act (Section 14.09)

Each state has a State Historic Preservation Office (SHPO). The 1980 New York State Historic Preservation Act (SHPA) was passed into law in order to declare historic preservation as policy in the interest of the State of New York.

> This act created the New York State Register of Historic Places, the official list of sites, buildings, structures, areas or objects significant in the history, architecture, archeology or culture of the state, its communities or the nation. The act also requires state agencies to consult with the SHPO if it appears that any projects being planned may or will cause any change, beneficial or adverse, in the quality of any historic, architectural, archeological or cultural property that is listed on the National Register of Historic Places or listed on the State Register or that is determined to be eligible for listing on the State Register. The act also establishes agency preservation officers within state agencies for the purpose of implementing these provisions [Section 14.09].

According to Flaherty et al. (1987),

> The New York State Register was authorized by the New York State Historic Preservation Act of 1980. The same eligibility criteria are used for both the State and National Registers. In New York, the State Register is administered by the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) acting as the State Historic Preservation Office (SHPO) [Flaherty et al. 1987:1].

1996 State Environmental Quality Review Act (SEQRA) (6NYCRR Part 617 of the New York State Environmental Conservation Law)

The State Environment Quality Review Act is rather recent legislation.

SEQRA applies to projects undertaken or permitted by county and local governments; consequently, many thousands of projects statewide that fall outside the purview of the state and national historic preservation acts are reviewed. New implementing regulations for SEQRA went into effect in 1996. Under this act, municipalities may request that a project be reviewed by the State Historic Preservation Office (SHPO). All SHPO comments under this review are advisory only [http://nysparks.state.ny.us/shpo/environ/preservation.htm].

SEQRA requires that all governmental agencies determine whether the construction activities they are proposing, either through funding or approval, will have a significant impact on the environment.

The basic purpose of the SEQRA is to incorporate the consideration of environmental factors into the existing planning, review and decision-making processes of state, regional and local government agencies at the earliest possible time. To accomplish this goal, SEQRA requires that all agencies determine whether the actions they directly undertake, fund or approve may have a significant impact on the environment, and, if it is determined that the action may have a significant adverse impact, prepare or request an environmental impact statement [http://www.dec.ny.gov/regs/4490.html#18109].

The goal for land developers and engineers is to either avoid or mitigate the negative impacts of their construction activities.

Archaeological Assessment Phases In Regulatory Compliance

The New York Archaeological Council (NYAC) has provided state standards for cultural resource investigations and the curation of archaeological collections. These standards were adopted by the New York State Office of Parks Recreation and Historic Preservation (NYSOPRHP). While the NYSORHP offers specific report standards, they provide only field investigation guidelines; they ask archaeologists practicing in New York State to refer to NYAC standards. When applying regulatory compliance for cultural resource management, there are three general phases of archaeology:

Phase I

> The primary goals of Phase I Cultural Resource Investigations are to identify archaeologically sensitive areas, cultural/sacred areas and standing structures that are at least 50 years old, that may be affected by a proposed project and to locate all prehistoric and historic cultural/archaeological resources that may exist within the proposed project area [NYAC 1994:1].

Phase II

> The primary goals of Phase II Cultural Resource Investigations are to obtain detailed information on the integrity, limits, structure, function and cultural/historical context of an archaeological site sufficient to evaluate its Potential National Register eligibility [NYAC 1994:4].

Phase III

> Phase III Cultural Resource Investigations are required if an archaeological/historical resource listed on or eligible for inclusion on the State or National Register of Historic Places is identified and impacts to this resource by a proposed project are anticipated" [NYAC 1994:7].

Phase I (Phase IA & IB) investigations entails the identification of cultural resources through field reconnaissance and historic documentation. Occasionally the Phase IA background research determines that the property is not archaeologically significant and no further work is necessary. A combined Phase IA & IB accelerates the process in that once a property is determined archaeologically significant, surface and subsurface investigations can begin to locate potential sites. Phase II investigations entails testing strategies, site evaluation and identification of site boundaries. Often during Phase II cultural resources investigations it is determined that the site has been recovered completely and further archaeological excavations are not warranted. Should the boundaries of a site extend beyond Phase II determination, or it is thought that additional Historic or Prehistoric information can be gathered to further the site integrity, research potential or contribution to the Historic or Prehistoric context of the region, then a Phase III is required. Phase III investigations entail further, more intensive excavation, site data recovery, mitigation, laboratory analysis and final site completion.

Discussion

In the last several decades archaeologists have been held to a much higher field and report standard. The days of investigating sites for personal interest have been transformed into investigating sites for the purpose of national interest and protection. Site integrity and the level of significance of cultural resources to be listed on the National Register of Historic Places is now in the forethought of contract archaeologists. Often while the contract archaeologist is working for the documentation and protection of cultural resources,

resistance is encountered from some lead agencies and land developers involved in the development plan. More often than not, an explanation of the necessity of regulatory compliance is enough to quell any resistance, but sometimes questions about archaeological compliance arise. Cultural resources have to be mitigated pursuant to Section 106 of the NHPA. This being said, the New York State Office of Parks Recreation and Historic Preservation (NYSOPRHP) reviews and makes recommendations for all proposed construction and development projects enabled with federal, state or local funds or requiring permit approval.

There are several levels of difficulties that the Contract Archaeologist may face in this process, perhaps because of the overwhelming workload at NYSOPRHP. First, oversight and recommendations are not always consistent for similar proposed projects. While not every project has the same field conditions or archaeological level of significance, land developers and engineers working in a close niche of engineering firms, and even archaeologists on occasion, have a hard time understanding why one project is required to shovel test the entire area of potential effect (APE), while a similar project is required to mechanically strip the entire APE. The level of archaeology required may vary substantially, depending on the individual state preservation officer assigned (by county) to the oversight of the project. The definition and promulgation of state standards would go a long way toward alleviating some of these inconsistencies. Specific field work requirements might be defined, for example, such as the number of shovel tests required per acre as part of a walk over reconnaissance; or the circumstances which require consultation with Tribal Historic Preservation Officers (THPO); or establishment of a specific set of protocols for sites which fall outside of road right-of-ways and utilities. Land developers and engineers, as well as contract archaeologists, are often frustrated by the lack of such standards in their efforts at compliance.

The lack of consistent field standards also causes cost discrepancies between CRM companies. If one company can obtain a "No Effect" letter for a project by placing only one shovel test per acre during a walkover reconnaissance while another company charges a higher amount for the completion of five shovel tests per acres, two problems arise. One is that the CRM company with the lower bid for the one shovel test per acre will most likely win the bid, forcing the other company out of business. As a result competition may be reduced and this may lead to the formation of monopolies. Secondly, the CRM company with the higher standards for shovel testing may start to lose bids due to their higher cost and may choose to decrease the number of shovel tests per acre, to lower cost, win the bid and remain competitive. In the long run, this may decrease the potential for encountering cultural resources by forcing CRM companies to embrace the lowest common denominator in order to remain viable as a business.

Additionally, the number of reports submitted to NYSOPRHP is often overwhelming, resulting in significant delays in response time for consultation on proposed scopes of work. The delays often frustrate developers, and increase tensions between them and contract archaeologists. Another problem is that recent New York State SHPO standards (2005) do not require a check of previous archaeological surveys conducted within a one-mile radius of the proposed construction area. This often results in a duplication of work or the completion of unnecessary work.

There is sometimes debate regarding differences in the training and educational background of academic and contract archaeologists:

> University and college archaeologists normally are required to have doctorates to hold faculty or research appointments. While a large number of professional archaeologists also have doctorates, there are large numbers of people with master's and bachelor's degrees employed as archaeologists too. Indeed, not only is it true that half of all anthropologists who make a living as anthropologists and archaeologists working outside of a university setting, it is also true that professional archaeology is one of the few social sciences where a person with a bachelor's degree can get professional employment in his or her major [Neumann and Sanford 2001:19].

It must be noted that most contract archaeologists have had an academic education, either at the Bachelor's or Master's level. A combination of education, and actual years of field excavation experience produces many well-rounded experienced professional archaeologists. Figures 3 & 4 are examples of the excavation of contracted test units, illustrating the use of professional field methods. Sometimes, CRM investigations require heavy machinery, as in other types of archaeological endeavors. Whether it is for deep trenching, removal of pavement or for mechanical stripping, the use of heavy equipment is occasionally necessary (Figure 5).

Summary

In essence, CRM is public archaeology. The concept of an adverse effect to a property that would diminish the integrity of those aspects of the property that would make it eligible for the National Register can be a hard concept to communicate to land developers and construction engineers. The mitigation of those adverse effects can be an even more

Figure 3. CRM unit excavation, showing surface sod layer removal.

Figure 4. CRM unit excavation.

Figure 5. CRM Investigation using heavy machinery to look for a buried cultural A Horizon in Dansville, New York.

complex concept to relay. The degree of effectiveness of cultural resource management is clear. Archaeological sites, structures, and properties are recovered, protected and avoided through the processes of cultural resource management. However, the lack of consistent standards and procedures sometimes reduces the efficiency and effectiveness of CRM.

This article did not touch upon legislation including the American Indian Religious Freedom Act of 1978, or the Native American Graves Protection and Repatriation Act of 1990 or even Executive Order 13007 for sacred places, all of which are directly related to CRM excavations involving Native American sites and human burials. These are issues that would require discussions beyond the parameters of this article. It is the opinion of this author that cultural resource management is often misunderstood and under-valued. Perhaps as more issues associated with CRM are raised, greater awareness will be achieved and changes in standards and procedures will be effected.

Acknowledgements

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References Cited

Hohman, Christopher D.
1994 Archaeological Reconnaissance for PIN 3802.10.101 (Baldwinsville Bypass) Village of Baldwinsville and Towns of Lysander and Van Buren, Onondaga County, New York. The Public Archaeology Facility Binghamton University, Binghamton, New York.

King, Thomas F.
1998 *Cultural Resource Laws & Practice, An Introductory Guide*. Altamira Press, Walnut Creek, California.

Lipe, W.D., and A. J. Lindsay, Jr.
1974 *Proceeding of the 1974 Cultural Resource Management Conference*. Museum of Northern Arizona Technical Series No. 14. Flagstaff, Arizona.

Neumann, Thomas W. and Robert M. Sanford
2001 *Cultural Resources Archaeology, An Introduction*, Altamira Press, Walnut Creek, California.

Rosenburg, Ronald H.
1981 Archaeological Resource Preservation: The Role of State and Local Government. *Utah Law Review* 4:727-802.

Electronic References

Advisory Council on Historic Preservation
1966 Section 106 Regulations Summary. Retrieved November 15th, 2007. http://www.achp.gov/106summary.html

Bonafide, John A.
2005 Phase I Archaeological Report Format Requirements, NY, New York State Historic Preservation Office. Retrieved on November 15th, 2007. From http://nysparks.state.ny.us/shpo/environ/forms/ReportStandard.pdf

Cultural Resource Standard Handbook
1994 Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State, The New York Archaeological Council as Adopted by NYSOPRHP. Retrieved on November 15th, 2007. http://nyarchaeology.org/mainpages/about/standards.htm

Code of Federal Regulations
2004 Section 36 CFR 800.8 36 CFR Part 800 — Protection Of Historic Properties (incorporating amendments effective August 5, 2004), Title 36 Parks, Forests, and Public Property Chapter National Park Service, Department of the Interior Part 60. *National Register of Historic Places*. Retrieved on November 15th, 2007. http://www.achp.gov/regs-rev04.pdf

Code of Federal Regulations
2004 Section 36 CFR 60.4, Title 36 Parks, Forests, and Public Property Chapter National Park Service, Department of the Interior Part 60. *National Register of Historic Places*. Retrieved on November 15th, 2007. http://archnet.asu.edu/topical/crm/usdocs/36cfr60.html

Federal and State Preservation Legislation
2007 The State Environment Quality Review Act. Retrieved on October 7th, 2007. http://nysparks.state.ny.us/shpo/environ/preservation.htm

Federal and State Preservation Legislation
2007 Section 14.09, Retrieved on October 7th, 2007. From http://nysparks.state.ny.us/shpo/environ/preservation.htm

Flaherty, Thomas, J. Conway, and C. Manning
1987 The Red Village 2.4-1. Retrieved on October 7th, 2007. http://www.attica.org/Final%20Document%20PDF/Chapter%202/Chapter%202.4_Historic%20Resources.pdf

Library of Congress
2007 The Mission of the Library of Congress. Retrieved on September 30th, 2007. http://www.loc.gov/about/mission/

National Register Bulletin List
1990 Guidelines for Completing National Register of Historic Places Forms. Bulletin #16, pp. 41-42. *National Register of Historic Places*. Retrieved on November 15th, 2007. http://www.nps.gov/history/nr/publications/bulletins/nrb15/

State Environmental Quality
1976 SEQRA Part 617 of 6 NYCRR., Retrieved on November 15th, 2007. http://www.dec.ny.gov/regs/4490.html#18109

In Memoriam

Floyd I. Brewer (1921-2005)

Photo courtesy of Clark H. Galloway.

Floyd I. Brewer, of Delmar, New York, author of numerous archaeological papers and founder of the Bethlehem Archaeological Group and Bethlehem Archaeological Laboratory, died on November 8, 2005.

The son of Elwood T. and Mary (Estey) Brewer, he was born in Bridgewater, Maine on May 6, 1921. He earned a Bachelor of Science degree at the University of Maine in Gorham in 1944 and spent three years in the U.S. Air Force during World War II. After his discharge in 1946, he earned a Master's degree and a Doctor of Education degree in guidance and student personnel services at Teachers College, Columbia University. He worked as an administrator and professor at three institutions of higher education before retiring from the University at Albany in 1983.

Despite his career choice, Floyd was strongly drawn to the field of archaeology, and in college took many of the courses appropriate to that area of study. During his working years, he spent many summers participating in digs at several sites in Europe and in North America.

After retirement he was free to pursue his interests in archaeology. The classes he then taught at Hudson Valley Community College in Troy produced a number of eager amateurs and led to his organizing the Bethlehem Archaeology Group and the current Bethlehem Archaeology Laboratory. The numerous digs in the Town of Bethlehem resulted in several published papers and a well-organized collection of artifacts.

He is best known in the Town of Bethlehem for his quarter century of volunteer service as town archaeologist, editor of the town history, *Bethlehem Revisited—A Bicentennial Story 1793-1993*, and author of several journal articles on the town's rich history. Other books include *Bethlehem Diary, Stories and Reflections 1983-1993*, which was published in 1994, and *A Dutch-English Odyssey—Stories of Brewer and Estey Families in North America 1636-1996*, a family history published in 1997 and acclaimed for its blend of genealogical information with cultural history.

Besides his parents, Floyd was predeceased by two brothers, Gerald R. Brewer and Merrill E. Brewer who was killed in World War II, and a sister, Maxine Brewer Savoie. He is survived by his wife of 61 years, A. Coleen (Hamilton) Brewer; two sons and two grandchildren.

An article on a dig at the Lyon family estate was nearly completed by Floyd at the time of his death, and final editing and choice of illustrations is currently being undertaken by members of the Bethlehem Archaeological Laboratory.

Peter Christoph

Charles L. Fisher (1949-2007)

New York State archaeology suffered a great loss on February 8, 2007 with the death of NYSAA Fellow Dr. Charles L. Fisher, following a battle with cancer. In addition his scholarly acumen and fieldwork savvy, Chuck brought rp intelligence, creativity, collegiality, and humor to his rk in the archaeology of New York State. He will be ely missed, but his contributions will serve to inspire rrent and future generations of archaeologists in our state.

After receiving his BA from SUNY New Paltz, Chuck ent on to earn his Ph.D. from SUNY Albany. While his ssertation research focused on a prehistoric site at Beacon ze, Chuck is best known for his contributions to histor- archaeology. Chuck taught at SUNY Albany and sselaer Polytechnic, but his most important teaching place outside of the classroom as he mentored many ng archaeologists in his positions at the NYS Office of s, Recreation, and Historic Preservation, Bureau of ric Sites, and later, at the New York State Museum. recently, Chuck served as Curator of Historical aeology at the museum, where he organized a new it, "Beneath the City: An Archaeological Perspective bany." The exhibit opened in June 2007 in the newly ed "Charles L. Fisher Gallery."

Chuck was an active scholar and researcher, and is ularly respected for his expertise on the archaeology of ry sites and domestic landscapes. He published many -received articles in professional archaeological jour- In addition, Chuck edited several books for the New State Museum, including volumes on the historical eology of Albany, on Fort Montgomery State Historic nd, with Dr. John Hart, a publication on the archae- of domestic sites.

Chuck and his wife, NYSAA past-president Karen en, made one of New York State's most prominent ological couples. In fact, they met as students of Dr. Funk, working on a 1970s highway survey project for Chuck is survived by Karen, and by their children, Kate, and Sarah. In addition, Chuck is survived by his his sister, and close friends and colleagues too us to count.

Those who worked with Chuck over his long career in York State archaeology consider themselves very fortu- have had that opportunity. In mid-February, the New State Museum paid tribute to Chuck with a Celebration where family and friends remembered Chuck with tears and laughter. Chuck's colleagues will honor his with a colloquium, "Soldiers, Cities, and capes: Papers in Honor of Charles L. Fisher," to be the New York State Museum on December 1, 2007.

Photo courtesy of Sarah A. Fisher.

The papers will be published in a peer-reviewed volume in the New York State Museum Bulletin series.

Donations in Chuck's memory may be made to the Fisher Fund for Historical Archaeology, c/o Dr. John Hart, New York State Museum, CEC, Albany, New York 12230.

Elizabeth Peña

Beth Wellman (1946-2007)

Beth Wellman passed away on Thursday, March 29, 2007. She was born in Provincetown, Massachusetts, the daughter of Robert R. Wellman and Glenda Miller Wellman of Chadwicks, New York. Beth was a Senior Scientist (Archaeology) at the New York State Museum in Albany where she worked for 37 years. She was a member of the New York State Archaeological Association and the Society of Industrial Archaeology. Beth earned an Associate Degree at the Fashion Institute of Technology and a Bachelor of Arts degree in Anthropology at Syracuse University. She pursued a Masters degree in Anthropology at the State University at Albany while embarking on a long and productive career at the State Museum. Beth worked with Dr. Robert Funk through most of her career, making significant contributions to the knowledge of Northeast prehistory. She also worked with Dr. William A. Ritchie, and with Dr. John Hart and Dr. Christina Rieth in recent years.

Beth began her career as a field methods instructor for State University at Albany and State University at Oneonta field schools conducted on rich prehistoric sites in the Susquehanna Valley in the 1970s and early 1980s. These included excavations of the Middle to Late Woodland Street Site and the Early Archaic Johnsen 3 Site, which she helped direct with Robert Funk. Beth also instructed students in laboratory methods and collections management, and provided guidance in archaeological research—skills which she applied over the course of her career. Her enthusiasm and knowledge of archaeology inspired many students to excel.

Beth directed prehistoric site surveys in the Schoharie Valley, the Genesee Valley, and the Fox Creek Valley in the 1980s. She also directed a site investigation in the Susquehanna Valley with the Cultural Resources Survey Program of the State Museum. She was invaluable to CRSP staff in sharing her vast expertise on projectile point types, materials, and floodplain archaeology, and also served as a public liaison for prehistoric materials identification. In 1988, Beth took over the management of the extensive State Museum Archaeological Site File, shaping policies and procedures which streamlined the provision of data to professionals and researchers.

In the 1990s, Beth assisted Robert Funk with site excavations and survey on Fisher's Island, Connecticut, and with his rock shelter survey of eastern New York. In 2001, she worked with Dr. John Hart and Dr. Robert Funk at the Parslow Site on the Cobleskill Creek, and in 2002-2005, assisted Dr. Christina Rieth with State University at Albany field schools at the Smith-Holloway Site and the Pethic Site near Central Bridge. Beth also worked with Jack Foht and Ed Lenik during these years, helping to mitigate looted sites in Bear Mountain State Park. In 2005, Beth initiated a prehistoric site survey of the southeastern Adirondacks to identify preferences in lithic material sources.

Beth authored more than 15 publications over her career. These included articles on the Street Site, the Johnsen 3 Site, the Paleo-Indian Corditape Site, and prehistoric sites in the Schoharie Valley. She also contributed chapters in the *Archaeological Investigations in the Upper Susquehanna Valley, New York State* (1998), by Robert Funk. She composed a fitting tribute to Robert Funk following his death in 2003. In appreciation to Bob, she facilitated the completion of the in-progress State Museum Bulletins 503 and 504, *Three Sixteenth-Century Mohawk Iroquois Village Sites* (2003), by Robert Kuhn and Robert Funk, and *An Ice-Age Quarry-Workshop: The West Athens Hill Site Revisited* (2004), by Robert Funk, as well as an article on the Zappavigna Site in *The Bulletin* (Number 119) authored by Robert Funk, Harold Decker, William Ehlers and herself in 2003.

Photo courtesy of J. William Bouchard.

Beth carried a love of archaeology, history, art, and nature on her travels to the Southwest, the South, the Adirondacks, and the Catskills. She enjoyed hiking at majestic places. Some of her favorites were Giant Mountain, North and South Lake, and Breakneck Ridge. She created attractive gardens which kept nature close to her. Beth impressed friends and colleagues with her knowledge and energy. She enriched them with her unique observations and experiences of life.

Beth is survived by her life partner and best friend, Dan De Micco; her brother, Thomas R. Wellman of Glorietta, New Mexico; her sister, Jean Kolasky and husband, Carl Kolasky and their daughters, Catherine and Elizabeth of Anderson, South Carolina. Donations in Beth's memory to support research in New York archaeology can be made to the Robert E. Funk Foundation, c/o New York State Museum Institute, 3025 Cultural Education Center, Albany, NY 12230.

Mark LoRusso

NEW YORK STATE ARCHAEOLOGICAL ASSOCIATION

ADIRONDACK CHAPTER - QUEENSBURY
AURINGER-SEELEY CHAPTER — SARATOGA SPRINGS
WILLIAM M. BEAUCHAMP CHAPTER - SYRACUSE
CHENANGO CHAPTER — NORWICH
FREDERICK M. HOUGHTON CHAPTER — BUFFALO
INCORPORATED LONG ISLAND CHAPTER — SOUTHOLD
LOUIS A. BRENNAN/LOWER HUDSON CHAPTERKOTONAH
METROPOLITAN CHAPTER — NEW YORK CITY
MID-HUDSON CHAPTER — REDHOOK
LEWIS HENRY MORGAN CHAPTER — ROCHESTER
INCORPORATED ORANGE COUNTY CHAPTER -MIDDLETOWN
INCORPORATED UPPER SUSQUEHANNA CHAPTER — OTEGO
THOUSAND ISLANDS CHAPTER — PHILADELPHIA
TRIPLE CITIES CHAPTER — BINGHAMTON
VAN EPPS-HARTLEY CHAPTER — FONDA

Minutes of the General Business Meeting
NYSAA 91st Annual Meeting
Gideon Putman Hotel, Saratoga Springs, NY
April 20, 2007

Opening:
The NYSAA President, William Engelbrecht called to order the regular meeting of the General Business meeting at 7:10 pm on April 20, 2007.

Present:

Officers Present:

President, William Engelbrecht; *Vice-President* Marie-Lorraine Pipes, *Corresponding Secretary*, J. William Bouchard, *Recording Secretary*, Lori Blair, and *Treasurer*, Carolyn Weatherwax.

Chapter Roll Call:

Present: Adirondack, Auringer-Seelye, William M. Beauchamp, Frederick M. Houghton, Finger Lakes, Lewis Henry Morgan, Lower Hudson, Incorporated Long Island, Incorporated Upper Susquehanna, Mid-Hudson, Thousand Islands, Triple Cities, Van Epps-Hartley.

Absent: Chenango, Metropolitan, Incorporated Orange County.

A. Reports of the Officers

President: Bill Engelbrecht - report on file.

- Focus has been on getting more members, including professional archeologists in NY and neighboring states and by resurrecting the Chapter/Membership Committee. He encourages chapters to focus locally.
- He has started a newsletter and welcomes submission.

Vice-President: Sissie Pipes. No report.

- Has made additional copies of the cd rom.

Treasurer: Carolyn Weatherwax. Report on File.

- Two certificates of deposit came up for renewal: larger one renewed at 5% and the smaller one renewed as well.
- There is an additional $1500 in dues not included in the report.
- Need to pay ESAF dues.

Corresponding Secretary: J. William Bouchard. Report on File.

- Bill acknowledged the efforts of Bill Engelbrecht; 2006 membership was up to 558 (100 more than last year at this time)
- So far for 2007 there are 394 paid memberships for a total of 444 members.
- Chapter and officers' reports have been distributed.

Recording Secretary: Lori Blair. Report on file.

- The minutes of the October 2006 Executive Committee Meeting were reviewed.
- Motion made by Barbara D'Angelo to accept the minutes as written, 2nd by Bill Bouchard. Passed.

B. Report of the Committees

1. Awards and Fellowships - Peter Pratt

- Met by email—awards will be presented at the banquet.

2. Chapters and Membership - Sherene Baugher, Chair

- It was not feasible to get a table at the State Fair.
- Will try smaller, local venues with historical/ archeological themes.
- Each chapter should take some membership

brochures for distribution.
- Each chapter should have a representative for the committee.

Bill Engelbrecht would like to increase institutional memberships and encouraged chapters to contact local libraries.

3. Publications - William Engelbrecht—report on file
- Bulletin 2006 (No. 122) is at printer, should be available shortly.
- Plea for submission for 2007 Bulletin.
- There have been 2 submissions for Researches/ Transactions—looks promising.

4. Finance - Fred Stevens—On file
- Generally in good shape—we have money in the bank with a $3,000 gain in income.
- Paid 1½ Bulletins this year.
- The proposed budget was reviewed.
- There was a question about insurance—Bill Engelbrecht asked Fred and Carolyn to write up a summary about coverage for inclusion in the newsletter.
- Motion by Ruth Wakeman to pass the budget, 2nd by Bill Bouchard. Passed.

5. Library
- Still working on the catalog
- A request was made for an electronic catalog.

PROGRAM FOR 2008—Greg Sohrweide—Beauchamp Chapter

The 92nd Meeting of the NYSAA will be hosted by the Beauchamp and Thousand Islands Chapters. The meeting will be held the third weekend of April (18-20) at the Comfort Inn in Syracuse (near Routes 81 and 90). They have checked with other organizations and there are no conflicts.

2009 is still open for a hosting chapter.

Special Appointees

ESAF Liaison—Tim Abel
- The next meeting is Novemi er 8-11, 2007 in Burlington, Vt.
- The bulletins have been digitized and are available for purchase from the website—they contain minutes, reports, and abstracts of papers.
- NYSAA is entitled to ½-page ad in their bulletin.
- 2008 will mark the 75th meeting of ESAF; they would like to come to NY

NYAC Liaison—Sissle Pipes
- NYAC met and one of the items that came up was increasing the category of memberships (NYAC membership is down).
- Correspondents can participate fully although with no voting privileges. Name has been changed to Associate Members.
- Encourages NYSAA members to join; NYAC is very much aware of things that effect the archeological community including avocational archeologist .
- Ellis McDowell-Loudan—the Travel channel wants a new program encouraging "treasure hunting." The Executive Board of NYAC sent a position letter to the Travel Channel. Bill Engelbrecht also corresponded with them as NYSAA President—encouraging education. A request was made to post the NYAC letter to the website.

Funk Foundation—Wayne Lenig
- There have been three funding cycles.
- Funkfoundation.net to see awards given.
- Fall—applications accepted from professional (graduate degree and working in field) and avocational.
- Spring (undergrad and grad) student applications accepted (can't be in field full time).
- The committee is about to meet again to discuss fall fonndation.
- Available funding is $8,500—most awards range from $1,000-$3,000.
- They accept funds from individuals and request funding from NYSAA.
- He encouraged applications.

ASPI- Ann Morton—report on file
- ASPI continues "ticking along" - people are approaching ASPI now.
- Available for and have been answering questions pertaining to preservation issues and compliance regulations as well as those concerned about sites.
- Produced new brochure; materials are available in the book room.

There was a question from the floor about the Executive Committee Meeting. We will try again for October. The

committee includes the President and Secretary of each chapter as well as Association officers.

NEW BUSINESS

- The Executive Committee appoints liaisons—Bill Engelbrecht suggests one with the Society of Pennsylvania Archaeology (SPA). Fred Assmus expressed his willingness to be the liaison.
- Motion by Louise Basa to appoint Fred Assmus NYSAA liaison to the SPA, 2nd by Bob Navias. Passed.

- Motion to award up to $200.00 to reimburse expenses of students who have been awarded a Funk Foundation grant to present at NYSAA plus one year student membership in NYSAA by Peter Pratt, 2nd by Delores Elliot. Passed.

- Motion by Delores Elliot to donate $300 each to the Funk Foundation, Archaeology Season and the New York State Museum in honor of Chuck Fisher, 2nd by Bill Bouchard. Passed.

General Comments:

- June Talley would like to see meeting information mailed to the members.
- Bill Engelbrecht thanked Hugh Jarvis for his work as webmaster.

Meeting adjourned at 8:15 pm.

Respectfully submitted, Lori J. Blair, NYSAA Recording Secretary

Past and Present NYSAA Award Recipients

The Achievement Award

- Charles M. Knoll (1958)
- Louis A. Brennan (1960)
- William A. Ritchie (1962)
- Donald M. Lenig (1963)
- Thomas Grassmann O.F.M. (1970)

Paul L. Weinman (1971)

- Robert E. Funk (1977, 1994)

Peter P. Pratt (1980)

- Herbert C. Kraft (1989)

Lorraine P. Saunders (1999)
Martha L. Sempowski (1999)
William E. Engelbrecht (2004)
Edward J. Kaeser (2006)

Theodore Whitney Commendation

Gordon C. DeAngelo (1998)
Charles F. Hayes III (1999)

Fellows of the Association

Sherene Baugher
Monte Bennett
James W. Bradley

- Louis A. Brennan
- William S. Cornwell

Gordon DeAngelo
Dolores N. Elliott
William E. Engelbrecht
Lois M. Feister
Stuart J. Fiedel

- Charles L. Fisher
- Robert E. Funk
- Thomas Grassmann O.F.M.
- Alfred K. Guthe
- Gilbert W. Hagerty

Charles F. Hayes III
Franklin J. Hesse
John D. Holland

- Richard E. Hosbach

Paul R. Huey

- R. Arthur Johnson

Edward J. Kaeser

- Herbert C. Kraft
- Roy Latham

Lucianne Lavin

- Donald J. Lenig

Wayne Lenig
Edward J. Lenik

- Julius Lopez

Ellis E. McDowell-Loudan

- Richard L. McCarthy

Mary Ann Niemczycki

- James F. Pendergast

Peter P. Pratt
Robert Ricklis

- William A. Ritchie

Bruce E. Rippeteau

- Donald A. Rumrill
- Bert Salwen

Lorraine P. Saunders

- Harold Secor

Martha L. Sempowski
Dean R. Snow
David R. Starbuck
David W. Steadman

- Audrey J. Sublett

James A. Tuck
Stanley G. Vanderlaan
Paul L. Weinman
Thomas P. Weinman

- Marian E. White
- Theodore Whitney
- Charles F. Wray
- Gordon K. Wright

• known deceased

Certificate of Merit

Tim Abel
Thomas Amorosi
Roger Ashton
Charles A. Bello
Monte Bennett
Daniel M. Barber
Malcolm Booth
James W. Bradley

- Ralph Brown

Art Carver
William Davis
Gordon De Angelo
Robert DeOrio
Harold R. Decker
Elizabeth M. Dumont
Lewis Dumont

- William F. Ehlers

Dolores N. Elliott
Garry A. Elliot
Lois M. Feister
John Ferguson

- Robert E. Funk

Joan H. Geismar

- Stanford J. Gibson

Gwyneth Gillette
Robert J. Gorall
R. Michael Gramly
George R. Hamell
Elaine Herold
Franklin J. Hesse

- Richard E. Hosbach

Paul R. Huey
Vicky B. Jayne
Dale Knapp
Albert D. La France

- Kingston Lamer

John R. Lee CSB
Edward J. Lenik
William D. Lipe
Kelly Lounsberry
Adrian O. Mandzy

- John H. McCashion

Ellis E. McDowell-Loudan
Dawn McMahon
Jay McMahon
Ann Morton
Brian L. Nagel
Robert Navias
Annette Nohe

- Alton J. Parker

Marie-Lorraine Pipes
Marjorie K. Pratt
Peter P. Pratt
Louis Raymond
Beulah Rice

- William H. Rice

Saul Ritterman
Lucy Sanders
William Sandy
Barbara Sciully
William E. Scott

- Harold Secor

Annette Silver
Gregory Sohrweide
Mead Stapler
David W. Steadman
Marilyn C. Stewart
Kevin Storms
Tyree Tanner
Donald Thompson
Neal L. Trubowitz
Justin A. Tubiolo
George Van Sickle
Charles E. Vandrei
James P. Walsh
George R. Walters
Alvin Wanzer

- Beth Wellman
- Henry P. Wemple

Roberta Wingerson
Stanley H. Wisniewski