# HISTORY OF CAYUGA ACCULTURATION:

# AN EXAMINATION OF THE 17TH CENTURY CAYUGA IROQUOIS ARCHAEOLOGICAL DATA.

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## ABSTRACT

# HISTORY OF CAYUGA ACCULTURATION: AN EXAMINATION OF THE 17TH CENTURY CAYUGA IROQUOIS ARCHAEOLOGICAL DATA

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During the 17th century, the Cayuga Iroquois of what is now central New York State underwent numerous changes. The fragmentary European historical record, however, readily documents neither the cultural changes nor social transformations which occurred during the initial century of extended European contact. While the majority of Cayuga sites have been substantially altered or destroyed by pothunters and industrial development, quantities of Cayuga materials have been preserved in museum collections. These collections, most of which have not been subject to any sort of formal analysis, along with the archaeological notes and writings of Harrison C. Follett and the Central New York Archaeological Association, represent a substantial body of Cayuga archaeological material. A study of this material clearly indicates particular behavioral patterns at different times during the 17th century. By comparing these changes in behavior, it is possible to discuss the particular social and cultural transformations specifically, and the acculturation process in general.

To Harrison C. Follett

Who no longer has any need of this. If not for his fifty year dedication to Cayuga Archaeology, this study would not have been possible.

"At any rate, let this be a reminder to the Archaeological Society Member of the importance of careful preservation of the recovered articles, regardless of how unimportant they may appear. Even though but fragmentary, they can frequently be pieced together which will enable a determination to be made in a conclusive and satisfactory manner."

Harrison C. Follett 1946f: 4

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unpublished material about the Contact Cayuga.

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# CHAPTER 1

## INTRODUCTION

As societies attempt to expand their territorial ranges, they come into contact with different groups not of the same cultural tradition. The result of this contact may be that one or both groups will impart aspects of their society on the other. While this process, the flow of ideas and material between different societies, is commonly referred to in modern scholarship as acculturation, it has long been recognized as a powerful factor in society. Herodotus' discussion of the Scythians mentions that they, like the Egyptians, were dead set against foreign ways and did not tolerate Greek manners (Herodotus, in Sélincourt 1984: 295). Particular Greek products and behavior, however, such as wine and wine consumption, were adopted (Herodotus, in Sélincourt 1984: 291). Clearly, the distinctions in which items they made their own and those which continued to be foreign illustrate the complexity of acculturative process. It is this process, and its different aspects, which are the focus of this work.

In North America, the most discernible archaeological example of this phenomenon is the influx of European goods into Native American societies. Within a relatively short period of time,

individuals from a Stone Age came in contact with a preindustrial, Iron Age complex civilization. While the final outcome of extended contact between the different systems was predetermined, given the European and later colonial Manifest Destiny, it is the initial period of extended contact which may be most illustrative of the acculturative process.

The Native Americans were not, by any means, passive European "copycats". While this type of interpretative view may be accurate in describing certain situations, such as the Hellenization of Palestine, there is nothing to suggest that Native American populations had a conscious desire to re-organize their behavioral patterns to mirror those of the Europeans. Indeed, the existing ethnographic collections, while focusing their attention upon the continued maintenance of traditional material culture and behavioral patterns, illustrate the fact that certain societies, such as the Iroquois of New York State, were manufacturing pre-contact type items into the mid and late 19th century (L.H. Morgan collection). While these collections are extremely limited and are incredibly heavily biased in their representations, they do serve to illustrate the fact that not all aspects of the pre-contact society were abandoned with the arrival of European goods.

Also, there is little reason to suspect that all new items were valued at the same level or the same way. Acceptance of anything is not inevitable; it is differential and selective. There is no premise which would allow for the treatment of Native Americans as passive recipience in an active process.

Previous studies of acculturation have failed to adequately deal with this issue (see Chapter 2 below). In North America, since extended contact preceded the decline of indigenous societies, it is far easier to patronize the naturally good-natured but naïve Indian who was seduced by the unscrupulous European capitalist into selling Manhattan Island for some glass beads. In reality, while this fantasy, an off-shoot of the myth of the noble savage, fosters the image of Native American as victim, it distorts the historical past and does not allow for a proper understanding of the acculturative process to occur.

The archaeological culture of the Cayuga Nation, a member of the Iroquois Confederacy who inhabited what is now Central New York State, will be examined in order to make inferences about the behavioral patterns in general and acculturative process specifically during the initial century of extended contact. From the historical record, it is clear that the Iroquois Confederacy underwent tremendous change during the course of the 17th century. First

recorded in 1615 by Champlain as an obscure enemy of a French ally, within a period of fifty years the Iroquois became the dominating Native American power in the Great Lakes and the mid-Atlantic colonies. In spite of numerous European contacts, ranging from extended contact with French Jesuit missionaries during the third quarter of the 17th century to Denonville's Seneca Punitive Campaign of 1687, the Iroquois were able to continue to be a major economic and military power until the American War of Independence. It was not acculturation which destroyed the Iroquois but surrender at Yorktown.

While there has never been any question that European goods were utilized by the Iroquois, the role these objects played in Cayuga society has not been thoroughly explored. For example, what where the "adaptive" social transformations, if any , which occurred in Cayuga society as a result of this contact? Were European items simply adopted as soon as they became available or were only certain European goods desirable? Were European items used preliminarily as a raw material to construct traditional tool types or were they used in an unmodified form? Conversely, did certain European items totally replace native artifact types or did the European items form new artifact types, functions for which there are no pre-contact parallels? Since traditional bone and stone

artifacts are mentioned as occurring on later contact sites (Houghton 1922, Skinner 1922), did all types of traditional artifacts continue to be made of locally occurring materials or were only certain artifact types? Did the use or function of European items in Cayuga society change through time? Were new European items slowly integrated into the society or did the role of European objects radically differ from one site assemblage to the next? Were there discernible phases of European artifact usage and is it possible to tie the appearance of particular European items to a known historical event?

In short, how does this active process function? For example, while it appears to reason that the new technology would be quickly utilized by the Stone Age society there is the question of what do the Native American need the new technology for ? Also, what is more likely to be moved from one society to another and what does not or is less likely to move? Are there different phases of movement and acceptance ?

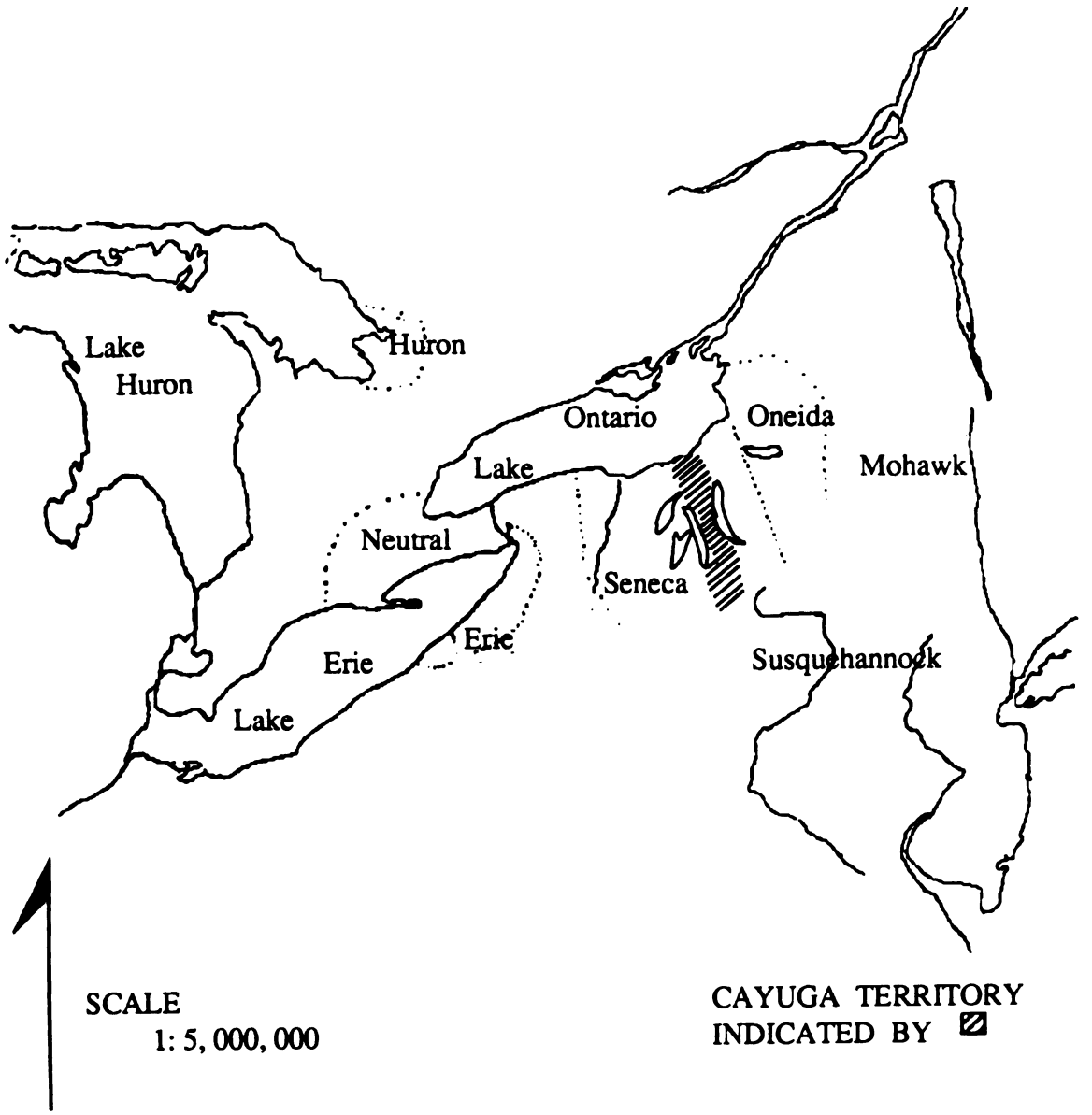
Since all artifacts and sites are in essence by-products of human actions (i.e. behavior), the identification of changes in artifact types and/or usage should reflect changes in behavior patterns. For example, during the third quarter of the century, it is known that the Jesuit missionaries were active among the Iroquois,

but to what extent did their religious teachings replace, modify or add to the native belief system is still undetermined. By examining burial practices, as well as the possible presence of Native American and/or European religious goods interred with the dead, it should be possible to determine which religious observances were followed at the time of death. Similarly, given that the Iroquois, like all Native American groups, had suffered greatly from European epidemic diseases, possible changes in the traditional burial customs may have begun previous to the arrival of the Jesuit missionaries among the Cayuga Nation (Wray et. al. 1991:404-405).

Clearly, the existing conceptions about cultural change and acculturation cannot focus upon one aspect of either change or continuity, for if they do, they are more likely to produce a skewed picture of the events past. Only by using a holistic approach, which examines the intertwined processes of both change and continuity, can a more balanced and more accurate picture of the process of culture change be drawn.

Given that like all the Iroquois, the Cayuga occupied a specific location for a relatively short period of time, all the items recovered from that particular location are presumed to be from the same temporal period, and thus serve to illustrate the behavior practices of a particular period of time. By comparing the different

site-specific artifact assemblages against each other, one may be provided with a way of examining the acculturative process and cultural change during the initial century of extended contact. From this specific Cayuga information, it may be possible to generalize about the process of acculturation as a whole.




TAKEN FROM TANNER 1987: MAP 5

**Figure 1**

Map of Cayuga Territory
And Surrounding Area

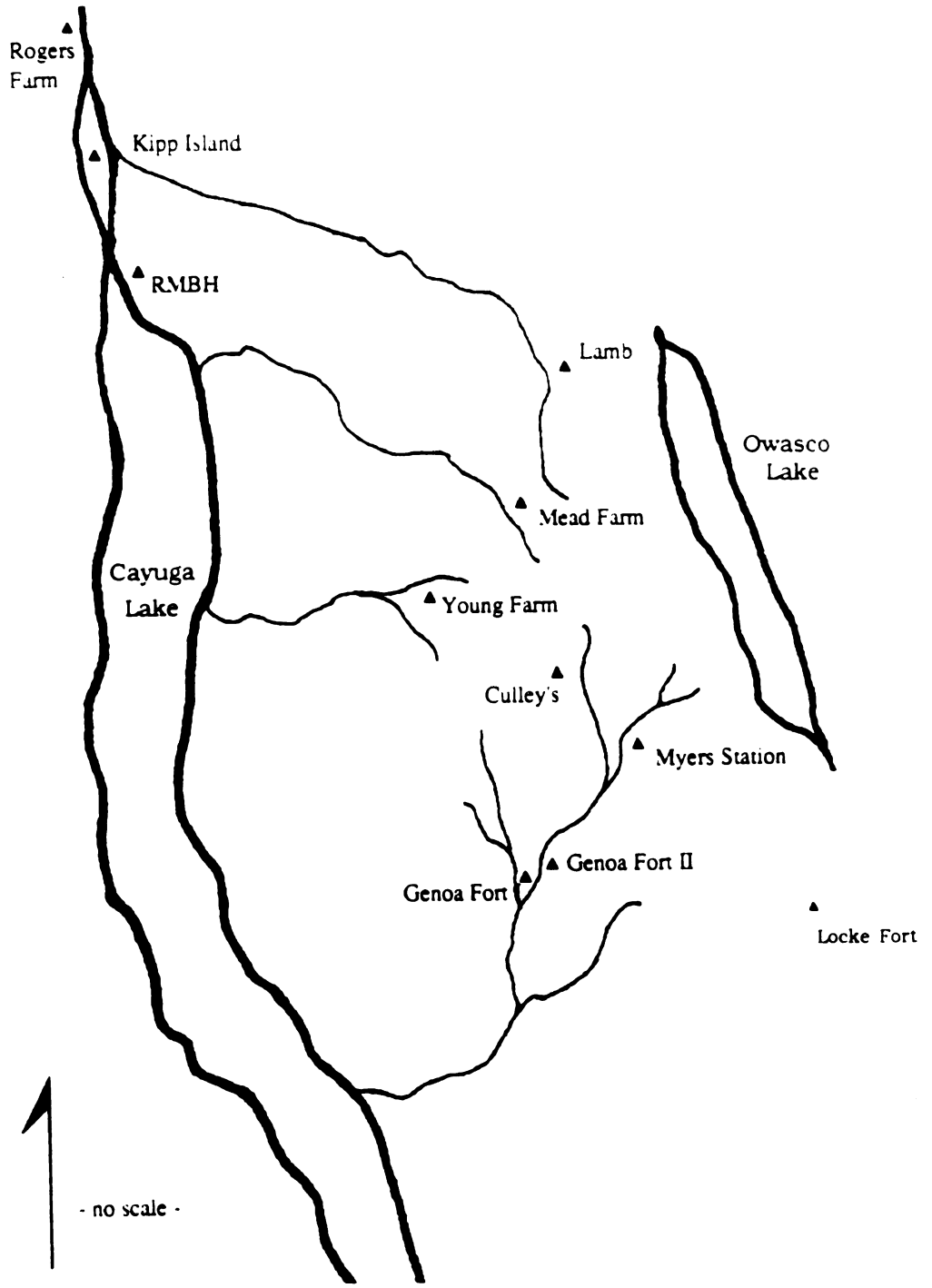



**Figure 2**

Map of 17th Century Cayuga Sites

| Time | General Information | Sites |
|---|---|---|
| c. 1000 AD | Late Woodland, Early Owasco Phase | Carpender Brook<br>Maxon-Derby<br>Jack's Reef |
| c. 1100 AD | Late Woodland, Middle Owasco Phase | Levanna<br>Lakeside Park<br>O'Neil Stratum I |
| c. 1250 | Transitional, Canandaigua Phase | Underwood<br>Chamberlin |
| c. 1350 | Early Iroquois, Castle Creek Phase | Mahaney |
| c. 1400 | Chance Phase | Great Gully Fort<br>Cato<br>Fort Hill -Auburn |
| c. 1450 | Late Iroquois, pre-Contact sites | Klinko<br>Nolan |
| c. 1550 | European goods first enter Iroquois territory | Locke Fort |
| 1608 | French establish Quebec | Genoa Fort I |
| 1624 | Dutch establish Fort Orange, Iroquois begin to expand their territorial ranges | Myers Station<br>Culley's Dean |
| 1648 | Destruction of the Huron by the Iroquois | Rogers |
| 1656 | Jesuit missionaries enter Iroquois territory | Mead Farm |
| 1687 | Destruction of the Seneca by Denonville | RMBH, Lamb |
| 1701 | French and Iroquois establish a peace | Young Farm |
| 1715 | Death of French King Louis XIV | Paddington |
| 1753 | Absorption of the Tutelo and Saponi tribes into the Cayuga Nation | Watkins<br>Dill Farm |
| 1779 | Sullivan Campaign destroys Cayuga villages | Peach Town |
| c.1800 | Cayugas dispersed from traditional homeland | Kirkland |
| 1851 | **League of the Iroquois** first published | |
| 1890 | 183 Cayugas mentioned living in New York State | |
| 1920's | George Decker appeals Cayuga Land Claim to League of Nations | |
| 1946 | Formation of the Archeological Society of Central New York | |
| c.1965 | Rebirth of Native American movement | |
| 1991 | Cayuga enter into a law suit against the US government in order to regain a portion of their traditional lands | |

Note: In addition to the primary research used to generate Figure 3, information was taken from Niemczycki 1984 and 1990, White at. al. 1978, and Stewart 1970 .

**Figure 3 Cayuga Chronological Chart**

## CHAPTER 2

### BACKGROUND INFORMATION

While the subject of cultural change and acculturation has long been an area of anthropological research, there exist few studies which deal specifically with the Cayuga Iroquois. To this day, the Cayuga are one of the more perplexing societies in the Northeast, and are the least understood Nation in the Iroquois Confederacy (Figure 1). While there are a number of reasons for the current state of Cayuga studies, it is not for the lack of interest in this subject.

As early as the 1840's, Cayuga remains were examined by Squier and Davis and were included in their work (Squier and Davis 1848, Squier 1851). Continuing throughout the late 19th and early 20th century, the historic Cayuga were a topic of interest for local historians, relic collectors and amateur archaeologists. A statue was erected in the center of the City of Auburn honoring Chief Logan, and public talks as well as various publications, were produced on the ever popular Cayuga (Clarke, Adams, etc.). In 1921, the noted Alanson Skinner made a collection of Cayuga artifacts for the Heye Foundation and came to the conclusion that "most of the sites have been more greatly despoiled than those of neighboring counties" (Skinner 1921:37). However, in spite of Skinner's laments,

excavations of Cayuga sites continued to be made through the second and third quarters of the 20th century and the finds of Harrison C. Follett and other individuals were presented in the **Bulletin of the Central Archaeological Society of Central New York.** Most recently, Robert DeOrio presented a paper on the "Preliminary Sequence of the Historic Cayuga" (1978), and Mary Ann Palmer Niemczycki, while primarily directing her attention to the *in situ* development of the Cayuga from a local Owasco population, discussed the Historic Cayuga in her dissertation on the **Origin and Development of the Seneca and Cayuga Tribes** (1984).

The body of archaeological Cayuga literature is extremely limited. Given the non-disturbed nature of the pre-Contact Cayuga sites, prehistoric archaeological studies have recently been successfully conducted (Edmonson 1976, DeOrio 1980, Niemczycki 1984, DeOrio 1989), albeit to a somewhat limited degree (Niemczycki 1984: 21). Contact studies, however, are another matter. In spite of the fact that the last hundred and forty years of research have generated numerous studies that deal with the contact Cayuga (Squier 1851; Morgan 1851; Clark 1874; Hawley 1879; Adams 1888; Beauchamp 1892, 1900, 1902a, 1902b, 1905; Taft 1913; Houghton 1916; Skinner 1921; Parker 1922; Follett 1946, 1947, 1948, 1951, 1953, 1955; Pratt 1968; Ward 1951b; Engelbrecht n.d.;

White, 1978, n.d.; Nelson 1977; DeOrio 1977, 1978, 1980; Niemczycki 1984; Secor 1987; Mandzy 1990), few are of any use. For example, those studies conducted in the late 19th century frequently misinterpreted Algonquin fishing villages as sites of Jesuit missionary activity (Clark 1874, Hawley 1879, Adams 1888). The literature generated during the first half of the 20th century severely lacks any sort of critical investigational methodology or even the most basic numerical analysis of the archaeological information (Follett 1946, Ward 1953). The majority of these works is a simple notation of interesting articles recovered in the course of excavation ("... noted a small piece of greenish metal protruding ... [which] turned out to be a small, true heart shaped metal" Gifford 1953: 20). Even DeOrio's preliminary site sequence (1978) is of limited use, since it presents only the result of his study and does not include a description of the methodology or the data upon which the results were based.

Although a substantial number of works about the Cayuga have been generated during the late 19th and early 20th centuries, a thorough analysis of the contact Cayuga has never been completed. Even Follett's review of the Cayuga data, made in the 1940's, does not meet this need, since it offers only brief descriptions of each relevant site. From the historical record, we know that the Cayuga

are much smaller in size, both in population and territorial control, than their Seneca neighbors to the west (Morgan 1851: 27). Most works on the Iroquois identify the homeland of the Cayugas as the region between the Cayuga and Owasco Lakes, in what is now Cayuga County, New York (Figure 2). However, their hunting territory was considerably larger, and extended north to Lake Ontario and south toward the Susquehanna River (Figure 1). From the **Jesuit Relations**, it is known that the Cayuga made heavy use of the natural resources in their immediate area and relied more on hunting and fishing than did the other Nations of the League (White et. al. 1978: 500). In the account of Wentworth Greenhalgh, which was made in 1677, the Cayuga "have three towns, do in all consist of about 100 houses and .... pass for 300 fighting men" (Greenhalgh 1677, in O'Callaghan 1850: 16). In the "Enumeration of the Indian Tribes of 1736", the Cayuga are listed as forming a single village of 120 warriors (O'Callaghan 1850: 21). For a better orientation on the history of the Cayuga Iroquois, a chronological chart is included (Figure 3).

While the lack of a published material on the Historical Cayuga has previously greatly hindered the incorporation of this data into more general, theoretical analysis, there exists a great deal of literature which is devoted to the study of cultural change and the

acculturative process in the northeastern United States. As early as 1672, Nicholas Denys noted that the individuals who lived along the North Atlantic coast had " abandoned all their own utensils, whether because the trouble they had as well to make as to use them, or because of the facility of obtaining from us, in exchange for furs which cost them almost nothing, the things which seemed to them invaluable" (Denys 1672, 1: 440-441, in Bradley 1987:166) Unfortunately, the view that natives adapted western goods as soon as they became available is too simplistic and may not be accurate.

In 1951, Quimby and Spoehr produced **Acculturation and Material Culture**. In this work, the authors examined the Chicago Museum of Natural History's collections of items from North America and Oceania to "determine the regular changes of form, material, use and technological principles expressed in such specimens in the contact situation" (Quimby and Spoehr 1951:107). In examining these objects, the first problem was one of classifying the kinds of change they expressed. "A number of categories of change were then formulated. ... [in order to determine] the process of change rather than ... [to categorize] the objects *per se* " (Quimby and Spoehr 1951:108). The resulting classification divided all objects into A) New Types of Artifacts Introduced Through Contact and B) Native Types of Artifacts Introduced Through Contact.

The conclusions drawn from this work indicated that the earliest stage of cultural contact involved material things - artifacts. The realized "superiority" of iron over lithic materials resulted in the replacement of stone tools. Given the ethnographic nature of the collection examined by Quimby and Spoehr, native types of artifacts modified by the substitution of a new material for an old material were frequently encountered, while objects introduced through trade were not (Quimby and Spoehr 1951:146). Their work also suggests that particular indigenous forms seem to be resistant to change more than material or content (Quimby and Spoehr 1951:147).

In 1953, Charles Wray and Harold Schoff produced a model of the Seneca Sequence in western New York State (Wray and Schoff 1953). By examining the changes in the Seneca material culture from circa 1550 to 1687, they were able to develop a relative chronology of Seneca sites. Their work, while generally of a descriptive nature, places an emphasis on the appearance or substitution of European for indigenous artifact types. As a result, the conclusions allow not only for a short discussion of the changes of material culture ("The stone axe was the first native tool to be replaced by its European iron counterpart." [Wray and Schoff 1953: 41]), but what is more important is a correlation of historical facts

and the archaeological record in an attempt to explain behavioral patterns (" Basic burial customs were slow to change and aside from the ever-increasing amount of European material given to the dead, little change took place until the Jesuits were established among the Seneca around 1650. The extended form of burial was slowly adopted and by 1687 nearly half of the burials were extended" [Wray and Schoff 1953: 41]).

The impact of Wray and Schoff on Iroquois Contact studies in western and central New York State continues to this day (Wray et. al. 1990). As a result of the 1953 study, a great emphasis was directed toward generating site sequences for the remaining five Iroquois Nations (Pratt 1969, Bradley 1976, DeOrio 1978, McCashion 1979, Bennett 1984a). Unfortunately, the majority of these other works were not as successful as Wray and Schoff, since they were not able to utilize such an extensive archaeological data set. In order to offset some of these limitations, certain absolute dates proposed for the appearance of European artifacts in the Seneca archaeological record were used to explain inconsistencies within non-Seneca data sets (Wray et. al. 1987: 5). As a result, non-Seneca chronologies continue to be reworked,while the Seneca has not undergone substantial revision (Wray et. all. 1987: 4.)

Not all contact studies in New York State, however, attempted

to duplicate Wray and Schoff. In 1961 Charles Hayes' work on "An Approach to Iroquois -- White acculturation through Archaeology" identified substantial differences in the assemblages recovered from Native American and Euro-America sites. In spite of the severe limitations of working with a small artifact assemblage and a "standard trait table" which listed artifacts by material type, it was clear that these Seneca sites, in spite of two hundred years of extended contact, maintained aspects of their material culture which are uniquely Native American (Hayes 1961: 18). While not directly stated, the recovery of celts, a healing stone, a muller, and phalangeal ornaments, is apparent from the data charts.

The continuation of this study in **The Orringh Stone Tavern and Three Seneca Sites of the Late Historic Period**, suggests that while the "existing Indian population may have utilized many items of non-Indian origin, thus superficially demonstrating a high degree of acculturation when actually other aspects of the [indigenous] culture may have persisted" (Hayes 1965: 45). Unfortunately, the inconsistencies of the conclusions are not further explored and are swept aside as being the result of "inadequate interpretations" (Hayes 1965: 45). The work concludes with a comment on the inadequacies of the archaeological record in explaining behavioral practices and makes reference to the

existence of substantial collections of mid-19th century Iroquois ethnographic collections (Hayes 1965: 46).

Quimby's 1966 work, **Indian Cultures and European Trade Goods**, presents an anthropological history of the Upper Great Lakes from the time of first contact with Europeans to the nineteenth century. While the majority of the chapters found in this work were previously published, in the introduction Quimby suggested a list of artifact change criteria categories that "reflected the process of cultural change and translated it into practically imperishable form" (Quimby 1966: 9). The categories of change, as reflected in particular artifacts, were as follows:

1) new types of artifacts received through trade or other contact channels;
2) new types of artifacts of forms copied from introduction models but reproduced locally of native material;
3) new types of artifacts of introduced forms, made /or decorated locally, partly from native materials and partly from imported materials;
4) new types of artifacts of introduced forms manufactured locally from imported materials through the use of an introduced technique or a native technique similar to the introduced one;
5) old types of artifacts modified by substitution of an imported material for a local material by the substitution of an imported material for a local material that was inferior in physical properties, lacking in prestige, or harder to obtain;

6) old types of artifacts modified by substitution of an either imported material or heretofore unused local material, the use of which involves a different technological principle to achieve a similar end product;

7) old types of artifacts modified by the introduction of a new element of subject matter.

Quimby 1966 : 9 - 11

While each of these categories is illustrated with examples of particular artifact types recovered from the archaeological record, these criteria were not further developed in the body of the text. Indeed, while the single paragraph which follows the artifact categories suggested a variation for the treatment of artifacts in the different temporal periods (Quimby 1966:11), little substantiated evidence for these categories is included to suggest that each of the temporal periods displays a particular artifact treatment. The only interpretation of the proposed criteria states that "old types of artifacts modified by the substitution of an imported material, ... as manifested in the Late Historic Period, 1760-1820, seems to be a reflection of cultural conservatism, whereas in the Early Historic period,1610-1760, it is primarily a manifestation of innovation" (Quimby 1966: 11). Keenly aware of the limitations of the relatively small amount of information available for the Early and Middle Historic periods in the Upper Great Lakes, he

was forced to conclude his discussion of cultural change with: "At some future time, it should be possible to analyze each culture and period in terms of category and quantity of cultural change as well as the rate of change" (Quimby 1966: 11).

In 1977, when comparing the artifact assemblage from Fort St. Joseph in Berrien County, Michigan, Charles Hulse attempted to "affiliate particular items with one specific group" (Hulse 1977: 21). While the recovery of a small amount of clearly identifiable French European personal items from the site may in part reflect the collecting biases inherent in the collection, Hulse suggests that since "the French assimilated Indian customs and dress", European personal items may not have been used to the same extent as in other, large French outposts (Hulse 1977: 29). " It is quite possible that the low frequencies of these artifacts from St. Joseph may be a result of the degree to which its inhabitants adopted the Indian life-style" (Hulse 1977: 29). If such interpretation is correct, then it serves to illustrate the two-way street of cultural change which results from acculturation.

An examination of the cultural transformations which occurred among the Illinois during the contact period revealed that numerous factors were involved (Brown 1979). "Population change in terms of the absolute reduction of numbers by external factors, such as war

and disease, is not a significant factor...; only in the company of other factors does it have explanatory power" (Brown 1979: 262). Thus, since usually more than one stress affects a society at any given time, there is no need to search for a monocausal explanation.

With this in mind, there may be more than one reason for change to have taken place. It is commonly believed that the change from earthenware vessels to copper/brass kettles resulted in the practical move to a more durable item. However, there may be other reasons. Given the Native American desire to possess a set of indigenous, though rarely occurring substances, such as shell, native copper, and crystalline minerals (Bradley 1987: 169), the copper/brass kettle may have been the best way of procuring the "special" material. On early contact sites, one rarely finds complete kettles, yet copper/brass ornaments, pendants and spirals are common. Most probably, kettles were originally desired for the copper/brass material, and that only later was the kettle used for food preparation and storage. While it is possible to suggest that the kettle later came to be used in its original function as a response to the changes in the society (time once spent in manufacturing pottery vessels may have been redirected in the pursuit of the more economically beneficial practice of fur collecting and processing) as a time saving device (much like the

micro-wave), it is unclear for which reason or more probably, which combination of reasons (durability, copper/brass, time management) were finally responsible for the substitution of the copper/brass kettle over the earthenware vessel as the container of choice.

In the course of excavating a Narragansett Indian burial ground of the third quarter of the 17th century in Rhode Island (RI100), it became apparent that in spite of the large quantities of European grave goods recovered, there was a continuation of the traditional Narragansett mortuary practices (Robinson, Kelley, and Rubertone 1985: 107). "All burials recovered were buried in a flexed position; most lay on their right side , facing east, with the top of the cranium pointing toward the home of the Cautantowwit (southwest). In general, grave items were positioned in the areas east of the individuals" (Robinson, Kelley, and Rubertone 1985: 114).

This situation at the RI100 site is not unique. In the course of excavating the Onondaga Pen site in central New York State, a similar situation was encountered (Pratt n.d.). "In these excavations, a total of 106 individuals were recovered from 60 graves. The graves were remarkable for their variety of content. Up to 10 individuals were interred in a single grave and various methods of burial were employed, ranging from fetal position to extended, to neatly placed bundles of detached bone" (Pratt n.d. : 2).

A variety of both European and Native American artifacts were recovered from the Pen site.

Thus, if one were simply comparing acculturation models based solely upon the artifacts recovered, very little conclusive evidence could be generated. If, on the other hand, one were to move beyond the strict confines of the material culture and incorporate such information as would better illustrate the human history of a society, in this case mortuary practices, it becomes clear that the Pen site belief system has incorporated certain European traditions (extended burials heading east) into its belief system, traditions which were not evident at the RI100 site. Thus, any new acculturation model generated must not only examine the artifacts themselves, but must also attempt to take into account the information provided by the archaeological record about the society in question.

James Bradley presents an argument of the salient features of acculturation in his work **Evolution of the Onondaga Iroquois** (1987). "Acculturation is defined as the process of reciprocal interaction that occurs when two autonomous cultures come into contact" (Bradley 1987: 167). Thus both societies are impacted by the contact. At the end of his introduction to acculturation, three major questions are presented:

1) to what degree do existing traditional cultural patterns and values serve to screen, filter, even define what is accepted and absorbed from another culture?
2) To what extent are there differential rates of change within a culture? What elements are most susceptible to influence? Which are most resistant?
3) While the acculturative process can have a negative impact, what is its potential for initiating innovation and cross-cultural creativity? What circumstances maximize this potential?

Bradley1987:167 -168

In an attempt to answer these questions, Bradley suggests that the Onondaga's response to contact was not passive, but rather active and selective. During the 16th century, selection of materials appears to have been based upon ideological considerations (the heavy preference for "life-enhancing" items such as shell, free state metals and crystalline or white siliceous stone). During the 17th century, this ideological basis waned in preference for a more utilitarian one (Bradley 1987:169). By the mid-17th century, Christian religious items became accepted and were used by the Onondaga, as are numerous other European goods.

In examining material culture with the understanding that continuity marked the acculturation process as much as change did,

a better balanced picture of the past is presented. To trace particular artifact changes, a six cell matrix with "Continuity" and "Change" across the top and "Material preference," "Form," and Function" down the left side is used (Bradley 1987: 171). By the use of such a system, Bradley identifies the change of artifact "Form" at the beginning of the 17th century. The further development of this model identifies those objects which are least likely to change and those items most susceptible of change, placing them in a scale of receptiveness to cross-cultural change.

*Least Resistant/Most Susceptible to Change*

- Material preference and related technology for making an object
- Form of an object
- Function of an object
- Cultural values and beliefs that define an object's function

*Most Resistant/Least Susceptible to Change*

Bradley 1987: 174

The final question presented by Bradley suggests that many of the changes that did occur in Onondaga society were creative and innovative (Bradley 1987: 6). It has been possible to refine this idea in recent years, due to the fact that scholars have the benefit of

twenty-twenty hindsight, which allows us to view the long-term effects of European contact as negative. This, however, may not have been the case for the Onondaga. The many adaptations of European goods to purposes other than to those which they were originally intended illustrates the ability of the Onondaga to utilize the European items as either raw material or a finished product (Bradley 1977: 17, Bradley 1987:178).

Branstner (1990) suggests that previous acculturation studies operated under a false assumption which presumed that "the outcome of contact is ultimately the disintegration of the indigenous people" (Branstner 1990:1). In order to avoid the pitfalls of past acculturation studies, she redirects her research to deal with decision-making in "complex egalitarian" societies (Branstner 1990: 4). While the processes of decision making, especially the feed-back aspect of the model, in egalitarian society can be used to explain adaptation, innovation, and adoption in the context of change, by what means does one explain the acculturation process of non-egalitarian societies? While certain points raised concerning past implications of acculturation studies are valid (Indians as passive "pawns" in the fur trade, immediate dependence on trade goods) the abandonment of such a model, especially as used by Bradley (1987), does not appear to be warranted at this time.

One comment made by Branstner needs to be understood in dealing with further acculturative studies. In previous studies, it was understood that the indigenous population lost to the Euro-Americans. While in certain instances this is true (the Virginian Powhatan), it is not always the case. Given the continued recovery of indigenous Iroquois material in both 18th century archaeological (Hayes 1961: 18) and 19th century ethnographic data sets (Hayes 1965: 46), it is clear that a continued ethnic identity was maintained many centuries after contact. At the end of the 20th century, more than four hundred years after initial contact, the Seneca Iroquois continue to maintain their group identity and limited political power. The Mohawk, another Nation of the Iroquois Confederacy, in the summer of 1990 took up arms against the government of Canada. Thus, as Branstner points out, if the acculturative process results in the destruction of a society and its cultural identity, by what means can the Mohawks wage a war if they were "neutralized" by European acculturation, a process with which they first came into direct contact during the first quarter of the 17th century?

In all these studies examined, only Branstner (1990) does not treat all aspects of society on the same level. By physically separating the technology from the ideological data, an effort is

made to discuss different aspects of cultural change separately. While the comments made about the retention of pipe making technology at the same time wthat vessel manufacturing is abandoned clearly provides an insight into the acculturation process, this idea was not further developed. Rather, the retention of pipe technology is explained as being "based on ideological and social goals and norms" (Branstner 1990: 11).

Previous acculturation studies have focused on all aspects of society the same way. As a result, changes in technology are viewed in the same way as are changes in ideology. This view, however, is superficial and oversimplified. The substitution of a superior iron blade tool over a stone one, in spite of any spiritual rare-element significance metal may have had, is one of simple practicality. The fact that iron produces a sharper and more durable blade than stone is verified by the quick spread of iron technology throughout Europe, Asia, Africa, and all points in between.

At the same time, however, one can not expect the adaptation and incorporation of a new belief system to follow the same route and to proceed at the same pace as technological acculturation. The adoption of a new religious belief system, which in essence is a manipulation of the existing value system, is not as simple as the replacement of a flint knife by one made of iron. The possible

further development of this idea will be examined throughout the course of this work.

## CHAPTER 3

## FOUNDATION FOR INVESTIGATION

### Methodology: An Overview

The following method of examining 17th Century Cayuga materials is proposed. While the majority of Cayuga sites have been substantially altered or destroyed by pothunters and industrial development, quantities of Cayuga materials have been preserved in museum collections. These materials, most of which have not been subject to any sort of formal analysis beyond a cursory survey, represent a large body of 17th century Cayuga material culture.

Since the emphasis of this study is upon understanding the process of cultural change based on archaeologically derived material culture, objects will be classified by function, rather than place of origin. By using such a system, it will become clear not only which roles the European materials fulfilled, but which new roles, if any, the European goods created. While the emphasis of this study is directed toward the changing roles European goods played in the Cayuga system, the analysis will examine the entire site assemblage. European goods are understood to be an interconnected part of Cayuga material culture, and not as a somehow separate European material sub-culture. The examination of both European

and Native materials recovered from temporally different sites should provide a ruler by which to measure 17th century Cayuga society.

The result of this analysis should identify specific phases of Euro-artifact function groupings, which when compared with the historic record, should indicate different phases of European trade and material usage. It should be possible to correlate these with particular social changes which occurred in Cayuga Society. It is also possible, however, that the adaptation of European goods in Cayuga society followed a gradual absorption with no evidence for distinct phases being present.

While a number of theoretical models have been proposed to examine the acculturative process (see above), a variation of Quimby's (1966) approach will be used to examine the Cayuga material. In the intervening years since Quimby's publication, it has become possible to examine the entire Contact history of a particular group, since the needed collections currently exist. Given that the Iroquois periodically abandoned sites as they exhausted the natural resources of the immediate area, each site's artifact assemblage represents a particular repetitive behavioral pattern of a set block of time. By comparing the difference in each of these particular patterns, it becomes possible to identify the cultural

changes during the initial century of contact.

In order to carry out such an analysis, pertinent changes to Quimby's existing model need to be made. The focus of the model will be sharpened by re-directing inquiry from artifact motif (Quimby's type 3 and 7), to artifact function. By answering the question whether European objects are new artifact forms or are merely providing the materials from which to construct traditional objects, instead of questioning whether "old types of artifacts were modified by the introduction of new element to subject matter", a clearer indication of change can be constructed. To more clearly identify these changes, the following six artifact categories are proposed:

1) Traditional artifact types made from local materials.
2) Traditional artifact types made from non-local materials.
3) European artifacts which are functionally equivalent to traditional artifact types.
4) European artifacts which are functionally equivalent to no known traditional tool type.
5) European artifacts which are functionally equivalent to European artifact types but are made from local materials.

6) European artifacts which service new European artifact types in use. No corresponding traditional tools observed.

While certain categories are self-explanatory, others may need elaboration. The first category consists of traditional artifacts which are made of local and non-local materials. Artifact types made from local materials which fall into this category are present in the proto-Historic record and are made of materials which are present in the Cayuga territories. Examples of such artifact types include: pottery vessels, bone awls, stone celts, and flint points.

The second category consists of traditional artifact types that are made of materials not found within the Cayuga Territories of Central New York State. Objects in this category would include marine shells from the Atlantic East Coast and exotic flints from western Ohio. There were also triangular brass/copper points made from European kettles, and iron awls made from European nails.

The third category describes European artifact types which replace the corresponding Native artifact types. Items which would fall into this category include: iron knives, copper/brass kettles, and white ball clay pipes.

The fourth category includes the introduction of new artifact types for which there are no corresponding traditional tools.

Objects that would fall into this category include: firearms, wine tasters, dinner bells, and panes of window glass.

The next category describes new artifacts that are made from local materials but are copies of European artifact types. Native gunflints are the most common artifacts which are included in this category.

The final category includes new artifact types which are introduced into the existing cultural system to service the new artifact types that have come into use. Included in this category are: iron files, bullet molds, and iron mirror-boxes.

In addition to these specific artifact categories, non-artifactual data will be incorporated into the final analysis. This will include a discussion of such things as settlement patterns, mortuary practices, and subsistence activities. Any pertinent contemporary historical sources will also be incorporated into the conclusions at that time.

By way of a final note, a conscious effort will be made to identify any differences in the treatment of different artifact types (tool acculturation versus non-tool acculturation). While at this time the practical application of such a methodology is purely hypothetical, further refinement of the model may allow for the use of such an approach.

**The Corpus of Information and Its Quality**

As mentioned earlier, the Contact Cayuga are the least understood of all the Iroquois Nations. Archaeologically, Cayuga sites have been subject to intensive pot-hunting since the mid-1850's. The close proximity of the City of Auburn to the historic Cayuga sites accelerated the process of wholesale commercial excavation of "Indian curiosities" (Skinner 1922, Niemczycki 1984: 21). With the demise of Auburn as the financial capital of central New York, interest in the Cayuga's past was unsupported, and many of the old "Indian an' fossil" collections were sold off or lost (DeOrio pers. comm.). Given the continuing lack of an academic or institutional interest in Cayuga archaeology, aside from that suggested by a very small sample collection in the Heye Foundation Museum of the American Indian, no representative collection of Cayuga archaeology exists.

Most existing collections of Cayuga contact represent an eclectic collection of artifacts, rather than a particular corpus of information. The three main repositories of Cayuga Contact material (Rochester Museum and Science Center, Auburn Historical Museum, and the Museum of the American Indian, Heye Foundation) each inherited their particular collections through a number of donations/purchases from different individuals, and as can be

expected, the quality and quantities between different collections is greatly varied. By systematically examining the Cayuga materials in these collections, a limited body of Cayuga Contact archaeological information becomes available for analysis. However, before one can utilize this information to generate any sort of conclusions about Cayuga behavior during the 17th century, a number of factors concerning the available information must be taken into account.

An important factor which must be taken into consideration are the intervening years between the time the collections were made and the time of current analysis (1990). In certain instances, when private collections were passed on to different institutions, certain artifacts were removed and resold, while others where discarded by the institution as being without value. Also, upon entering a museum's care, collections were not immune to the passage of time and fires, neglect and poor management. All of these have had an effect on these collections.

Also, there is a great variety in the collections available for analysis, which is in part due to the different methods of excavation employed and to the types of collecting policies used by each excavator. The types of collecting procedures employed have a great effect on the types of artifacts recovered. One simply does not get the same type and quantity of artifacts by surface collecting, for

example, as one would by plowing a field to uncover a burial plot. A surface collection would include a large number of broken, small objects, while an uncovered burial will produce a quantity of items of different sizes, as well as organic remains which would have been preserved by extended contact with copper salts.

At this time, one also has to take into consideration the collecting practices of the individual excavator. When examining a particular collection, one can not rely upon the presence or absence of certain types of artifacts, simply because any differences noted in the assemblages are most likely to reflect differences in the collecting procedures of the different collectors more than anything else. For example, it is known from the descriptions provided in the **Bulletin of the Archeological Society of Central New York**, that certain individuals only collected items which they considered to have some sort of Native American artistic value, while others recorded and kept some or most of the more "mundane" Cayuga and European items they found. To utilize any sort of a strict presence/absence table to illustrate anything more than the existence of certain items at different sites would, in all probability, most likely serve only to exemplify the difference in collecting practices utilized by the different collectors.

Another important aspect, which pertains to the available collections that must also be kept in mind, is the time when the collections were made. One can not judge the quality of a collection made in the 1920's for example, by the standards of today. Since most collections of the Cayuga Contact were in existence before the beginning of the Second World War, it would be foolish to expect certain materials, such as fauna, to have been included into existing collection. Faunal remains are rarely encountered in the Cayuga Contact collections for the simple reason that the recording of unworked bone was not part of the accepted archaeological field methods in use at the time the collections were made.

These however, are not the only problems encountered in the existing collections. Another major factor which effects these collections is lack of documentation on the materials in question. In most of these collections, there is little or no documentation of the actual provenance of the artifact aside from a general site name, or in certain cases, township location. While references in the **Bulletin of the Archeological Society of Central New York** are of great help in providing documentation on older collections, there is no information, other than those included with the artifacts, on those collections made after 1950. As a result, the conclusions one can make about certain collections is very limited.

Also, both the types and quantities of artifacts available for analysis vary and certain collections (Rogers, Mead) appear to be made up entirely of grave goods, while others (Genoa Fort I) were excavated primarily from refuse. In all good faith, it is not appropriate to compare items recovered from a refuse heap to those materials recovered from a burial ground, since the behavioral patterns which accounted for each particular deposition are radically different. The items placed with the deceased were carefully chosen by the surviving relatives and may have been specially hoarded, modified or even made for the specific purpose, while those items thrown away (refuse) were discarded without any thought given to their disposal and final deposition. While one cannot dictate the parameters of the presently available information, one must be aware of and take into consideration the two radically different behavioral processes involved in forming the artifact assemblages before drawing any sorts of conclusions from the existing collections of the Cayuga contact period.

Similarly, one needs to consider the differences between sites of different types. Certain locations may have served as temporary fishing and hunting stations, while other locations may have been utilized year round. For example, certain sites, such as Genoa Fort I, are believed to be year round habitation sites while other sites, such

as Rene Menard Bridge Hilltop, appear to have served as temporary satellite occupations. In certain circumstances, such as encountered at the Dean site, there is simply not enough information to suggest what existed at the location in question. Since the site formation process in a seasonal work station is different from a year-round village site, one can expect to find differences in the artifact assemblages of even temporally similar sites. Again, there is no solution which would somehow resolve these inconsistencies, and the best one can do is to be aware of the limitations in the information available, and take them into consideration when formulating conclusions.

The last major factor which needs to be taken into consideration is the actual quantity of artifacts in each site assemblage. Certain artifact assemblages, such as those from Genoa Fort I, Mead, and Rogers, are quite large and it is possible to compare differences in the types of artifacts recovered from a single site (Figure 5). The existing collections from other Cayuga Contact sites, such as Genoa Fort II, Dean, and Young, are not nearly as extensive and do not allow for such intricate comparisons to be made. The lack of any available artifacts for analysis from Lamb, Culley's and the Locke Fort, and the presence of but a handful of artifacts from such as sites as Kipp Island, Rene Menard Bridge

Hilltop and Myers Station places severe limitations on the types of interpretations which can be drawn from the existing information. While there is no magical solution which would somehow resolve the inconsistencies inherent in different size samples, one must be conscious of the fact that larger assemblages will have greater diversity than their smaller counter-parts.

With all the limitations of the available information, it is not surprising that the Contact Cayuga have been referred by some as "despoiled and therefore can not provide data" (Niemczycki 1984: 21). While the preceding quote made specific reference to Cayuga Contact sites, this type of mentality has also been carried over to existing collections. As a result, the existing Cayuga Contact collections rarely have been subject to any sort of thorough analysis. However, by drawing upon the existing collections of Cayuga Contact material which are presently housed in the three different museum depositories, as well as previously published Cayuga Contact site descriptions (Follett 1946, Ward 1950), a limited body of information becomes available for analysis. While keeping in mind the limitations of the available information, it will be possible to generate from the existing information a better understanding of Cayuga society during the initial century of extended Euro-American contact.

## Control of Space and Time

Before one can begin to look at changes in Cayuga society, it is necessary to organize the archaeological materials into a comparative chronological framework. From the historical data, as well as all known Iroquois archaeological models, it is understood that the Cayuga utilized a number of sites during different periods of the 17th century (Figure 2). Given that all of the Iroquois Nations periodically moved their village settlements as they exhausted the resources in their immediate area, each of the abandoned village areas reflects the behavior practices of the society only at the particular period of time (Wray and Schoff 1953:33, DeOrio 1978). By examining the differences in these temporally sensitive sites, it will be possible to draw inferences about Cayuga society from the archaeological data.

While both the works of Harrison Follett (1946-1947, 1951) and Robert DeOrio (1978) provide a general chronology of Cayuga sites, neither was well suited for organizing the existing archaeological collections used in this study. As the presently available Cayuga archaeological material includes collections recovered from sites which were not mentioned by Follett or DeOrio, the use of either chronology would have made it necessary to "plug in" the new data to an existing chronology, or more likely, to reject

it all together since the artifact collections used in these previous studies are no longer available for analysis. While Follett's dated chronology provides an informative description of the then known Cayuga contact sites, he does not explain the criteria used in developing his chronology. In avoiding certain unresolved issues inherent in the material DeOrio had to work with (multiple names for an individual site, the same name of a site used by different individuals at different location, limited second hand information), his work combines sites, which he believes to be contemporary to each other under a single heading and then briefly describes them (1978). To rely upon DeOrio's conclusions, which are presented in summary form only, as well as Follett's, may perpetuate any possible errors in chronology introduced in their work. As neither existing chronology adequately organizes the existing Cayuga collections, it was deemed necessary to develop a new framework which would organize the collections currently available for analysis.

Unfortunately, since the existing scattered historical references are too vague to provide a workable framework of Cayuga site settlements, another methodology must be used (DeOrio 1978). Absolute archaeological dating techniques, while having significantly developed over the last fifty years, are only marginally

capable of providing dates for sites within the same hundred year occupation, particularly for historic sites (William Lovis 1990: pers. comm.). Thus, by process of elimination, the only practical way of organizing the Cayuga sites is by using a relative site chronology.

While there are two methods which are generally used in a relative dating - stratigraphy and seriation - the stratigraphy method can not be used since it is only applicable to a single site (Dunnell 1970:305). The seriation method, which includes "a set of assumptions, their corollaries and relations, organized for a solution of a particular class of problem (e.g., chronology" [Dunnell 1970:305-306]) is well suited for comparing sites (groups) of the same cultural tradition (Dunnell's second criteria [1970: 311)] and will be used in organizing the existing Cayuga collections.

Using the entire artifact assemblage from each site to generate a chronology for the Cayuga contact period, such as the one utilized by Wray and Schoff (1953) in the development of the Seneca sequence, is impractical due to the variation in both quantity and quality of the existing Cayuga collections. If one were to employ a similar frequency seriation method to examine the available Cayuga material, the results would, in all probability, more likely reflect the limitations of the existing information rather than anything else.

Similarly, to use an occurrence seriation method which would identify each type of artifact as a particular class (parameter) is not very viable, since the available collections present a smattering of items which were thought to be of interest to the excavators and the curators of the collections, rather than any sort of controlled sample. The presence or absence of a particular "flashy" item, such as effigy pipes, cannot be included into a vigorous occurrence seriation since these types of objects were commonly subject to intensive post-excavation manipulation, as such items were commonly separated from the Cayuga collections (display, auction sales) and not returned to the assemblage. To develop a chronology based on the presence/absence of materials that appear on the opposite end of the collector desirability scale, such as iron knife blades and debitage, may also produce false impressions of the archaeological record, since such items were often not kept when found. Also, while such objects as Iroquois sherds, Christianization rings, and firelocks have a known absolute date of manufacture (*terminus post quem*) or a generally agreed to common period of occurrence on Iroquois sites, to base a chronology on only a handful each of a few items is much less valid than to develop an occurrence seriation using a large number of items, and then validating it by using items whose dates are derived independently of hypothetical

chronology.

Indeed, in examining the collections available, the only type of artifacts that appear in sufficient quantities from which an occurrence seriation can be developed are European glass trade beads. These items, which are found in substantial numbers on all but the earliest 16th century Cayuga Contact sites, were usually collected and kept, while other less eye-appealing objects never made it into museum collections. Also, since beads are rather common, it is unlikely that an entire bead assemblage was subject to the same level of manipulation as were the far more unique larger objects. Variability in the construction, color, and style of different bead types provide a combination of attributes which can be manipulated. Operating under the assumption that European beads were as cheaply acquired by the Cayuga as they were by the other Iroquois Nations, lost beads were frequently replaced with new ones. While an individual bead string may have been curated for one or more generations (DeOrio, pers. comm.), the majority of beads had an assumed predictable life expectancy similar to a coin's circulation expectancy, approximately 20 years (Pratt 1983: 216), and thus are of "comparable duration" (Dunnell 1970: 311). Also, since all the beads have been removed from sites of the same cultural tradition and local area, the conditions needed to conduct a seriation are met.

Since a seriation is only inferred to be a chronology, the results of the bead occurrence seriation will only provide a hypothetical ordering of the 17th century Cayuga sites (Dunnell 1970: 310). In order to give more credence to this hypothesis, those other types of artifacts which were not included in the seriation, but whose absolute dates of manufacture or deposition have been derived previously from studies independent of this seriation, will be used to check its validity. The four artifact types which will be compared against the bead seriation include: human effigy "September morn" figurines, Christianization rings, firelocks and coins.

While the seriation occurrence method is not new, it may be worth-while to review this methodology. Since the Cayuga periodically relocated sites when the resources of the immediate area were depleted, each site can be assigned a beginning and ending date of occupation (temporal range). Thus, the bead assemblage of a particular site is an indicator of the site's temporal dimension (duration). By comparing the types of beads deposited at one site to the beads from another site, it is possible to argue for greater or lesser temporal correspondence of sites based on the differences and similarities in the bead assemblages. Thus, sites with similar bead assemblages will be treated as temporally more similar than

those of radically different bead assemblages. Sites from which no archaeological bead collections currently exist will only be added later to the chronology based on references in the archaeological literature.

Given the nature of the collections available, it was decided to look at the presence and absence of particular bead types rather than the frequency of occurrence. In doing so, the effects of the sample were minimized and it became possible to compare assemblages from different types of depositions (mortuary data to surface collections and trash piles).

While it would be preferable to use Kenneth Kidd's classification system (a system which addresses bead manufacturing processes, interior bead color, exterior bead color, bead form, and size of bead) in developing the bead-based chronology, the use of this system is not possible given the time constraints needed to conduct such a study. Also, given that certain museum policies do not allow the extensive manipulation of beads, those beads found on tightly wound strings were not available for the level of examination needed to implement the Kidd system (to observe the interior bead core color of beads tightly strung together would require de-stringing the beads in question; Kidd 1970).

In place of the Kidd system, a simplified version is used. This system identifies only two types of variation, exterior bead shape and the exterior bead color, as significant attributes. Thus, a large solid red round bead which was made from of the re-heating of a tube bead (Kidd type IIa1), a small red round bead with a black core (Kidd type IVa1) and a red wire round (Kidd type WIb8) will be classified together as Red Round, since all three beads display attributes held in common by all three beads assigned to this class (Dunnell 1970:307). When the variable assigned during the course of this study correspond to the criteria used by Kidd, the equivalent identifying numbers will be provided (for example, Kidd classifies Octagonals as WIIc).

In all but one example, the beads used in this analysis come from three museum collections: The Cayuga Museum of History (CMH) in Auburn, New York; the Rochester Museum and Science Center (RMSC) in Rochester, New York; and the Museum of the American Indian (MAI) in New York City (see appendix for a full listing of all items recovered from each site). Since no bead assemblage was available from the Culley's site, the description given in a previously published work was utilized (DeOrio 1978). Descriptions of the glass bead assemblages from the two remaining 17th century Cayuga sites, Locke and Lamb, are not available and these sites will

not be included in the seriation.

Given the history of these collections, the quantity of beads available for analysis from each site varies considerably between sites, from thirty-seven at Genoa Fort II to the over 3,000 beads recovered at Mead Farm. A large collection of beads was also recovered from the Rogers Farm (2,457 beads) and Genoa Fort I (1,127). The remaining five sites all produced between a hundred and one thousand examples. In total, 8,416 glass beads were examined.

In the course of examining these European glass trade beads using the above mentioned criteria (exterior bead shape and exterior bead color), eighty-five separate bead types were identified. Among these, seed beads were rejected for use in the seriation, since, due to their extremely small size, the recovery of these items requires meticulous excavation techniques, and as such, given the history of these collections one is more likely to be measuring the variations in different excavation techniques rather than temporal or spatial variation.

Of the remaining seventy-two bead types, thirty-six bead types were encountered at only a single site (thirteen at GFI, two at Myers, one at Culley's, seven at Rogers, six at Mead, two at RMBH and five at Young). The other thirty-six bead types were recovered from

more than one site. Given the large quantity of beads available for analysis at both Rogers and Mead (2,483 and 3,399 respectfully), it should not be surprising that both sites display a variety of bead types not represented in any other assemblage. The greater variety of single bead types shown at GFI suggests that either the assemblages of sites from similar temporal dimensions are so small, that they can not produce the same amount of variability than a larger assemblage, or that GFI may occupy a temporal position at either the beginning or the end of chronology. The recovery of five bead types only at the Young site suggests that this site may also occupy a temporal position at either end of the chronology, while the recovery of seven and six bead types at Rogers and Mead respectively may be a result of the greater variation encountered with a larger assemblage.

In the course of organizing the bead types before beginning the actual occurrence seriation, it was noted that particular shapes of beads were common on a particular site. For example, on GFI it was noticed that there exists a great variety of round bead types, while on Rogers and Mead there are many different types of tubular beads. Also, certain bead types were noted among most of the site collections examined, and are presumed to be common 17th century European glass trade beads (Black Rounds, French Horizon Blue

Rounds, Red Rounds, Union Blue Rounds, White Rounds, Union Blue Tubes, Red Tubes and Twisted Red Tubes).

Given the large quantity of beads available for analysis and the limited number of sites, the graphic presentation will show sites (groups) as vertical axes and particular bead types (classes) as horizontal rows in order to clearly display the matrix. As the frequency of the bead types is of no importance at this time, notation is made solely on the presence or absence of a particular bead type at a particular site (Dunnell 1970: 308).

Since the observation that beads of the same shape, rather than color, tended to be recovered from a particular site duration, it was hoped that this apparent phenomenon could be expanded upon to order the bead artifact classes. Thus, as way of a preliminary organization, beads of the same shape were clustered together along the vertical axis for preliminary occurrence seriation.

The resulting graphic representation suggested a way of organizing the sites (groups) along the horizontal rows (Figure 4a). The clusterings first noted in the particular bead site assemblages were recognized as possible patterns in the developed seriation matrix. While originally it was intended to only use those bead types which occurred on more than one site in the seriation (Figure 4a), when a second seriation was undertaken by using all seventy

two bead types (Figure 4b), the clusterings noticed in the second seriation were much more pronounced. In spite of the arguments of excluding those bead types which occurred only on a single sites due to the extreme variation that exists in the different site collections, the matrix which results by not excluding the individual bead types is more vivid than the one which results by excluding those bead types which are only encountered on a particular site. Also, an argument can be made to include those bead types which are encountered only at a particular site, since their presence may indicate a concentration of similar bead types at a particular period of time. Thus, if there are multiple variations of a particular bead style at a given site (different styles of chevrons at GFI, different colored football shaped beads at Mead), the concentration of these variations may indicate the popularity of a certain bead style. Based on this assumption, the resulting matrix may be more illustrative in indicating serial ordering of the 17th century Cayuga sites. In any event, the inclusion of those bead types which occur only at a particular site makes it possible to differentiate between those bead assemblages whose relative order was arbitrary (e.g. RMBH and Young). While the graphic presentations of both seriations are included in this work (Figures 4a and 4b), this study will rely on the distribution model generated by including all beads types (minus

seed beads) encountered in available collections.

The model developed (Figure 4b) shows the distribution of European glass trade beads among the 17th century Cayuga Iroquois sites. Bead types are generally grouped by shape, although chevrons and marble beads are separated from the round bead types, since their distribution appears to be temporally sensitive. Sites are depicted in vertical rows and are so listed along the left hand side of the table. The way the table is organized, when looking at the occurrence of particular bead types, a concentration is noted at the bottom left hand corner and at the upper right hand position. While the graphic presentation of the material was intentionally modified to display the matrix in this type of configuration, the results illustrate one way the distribution model can be organized - a configuration most useful for ordering the material to the required pattern (Dunnell 1970: 310). In using this configuration, the clusterings of particular bead types can be recognized more readily and be used to organize a seriation matrix to show the desired configuration.

The first thing noticed in the distribution model (Figure 4b) is the common occurrence of certain bead types in most of the 17th century Cayuga assemblages. French Horizon Blue Rounds, Red Rounds, Union Blue Tubes, and Red Tubes were clearly utilized by the

Cayuga throughout the century. Also, it appears that Black Rounds, Union Blue Rounds, White Rounds, and Twisted Red Tubes were popular, even thought they are not as well documented at those sites from which there is limited information. While discounting these bead types as potential indicators which could be of use in organizing the sites, these bead types serve as a common thread which links the matrix together.

In addition to the identification of those beads types which are encountered throughout the assemblage, the eleven clusters of different bead types (in actuality "the occurrence of a particular combination of attributes and not sets of objects" [Dunnell 1970: 307]) noted in the matrix were thought to be most representative for illustrating the seriation. These clusters, which are made up of similar bead types, are noted as being either related directly to shape (Footballs, Octagonals) or to a variation of a color and/or design on a particular bead shape (Blue Chevrons, White Chevrons, French Horizon Blues with Stripes, Red Round with Stripes, Translucents, Black Tubes with Stripes, White Tubes with Stripes, and Romans). While it is possible to designate these eleven "clusterings" as the representative of actual artifact classes and use them for the seriation, the actual analysis will rely upon the original matrix for its information, and will only use these clusters

when discussing general trends.

**The Actual Seriation Distribution Model**

At this time it may be beneficial to go over the seriation of sites generated by using this model. GFI is the first horizontal row in this seriation and includes a variety of Chevron and other Round glass beads styles. While there is a limited amount of beads available for identifying the precise relative order of GFII, it is arbitrary placed at this location and could be reversed. Myers is the following horizontal row in this seriation. Two new types of tubular beads are noted from this assemblage (French Horizon Blue Tubes and Red Tubes with White and Blue Stripes), as are a variety of French Horizon Blue Rounds with Stripes, Red Rounds with Stripes, and Chevrons. The limited literary description of the bead types recovered from Culley's notes the presence of different types of Chevrons. In spite of the limited bead assemblage from Kipp Island, identification of Black Tubes with White Stripes places this site at this horizontal row location. The identification of Black Tubes among the bead assemblage from the Dean site suggests that this site post-dates all sites examined. Beads from the Rogers Farm include a variety of new types, including Black Tubes with Stripes, Union Blue Tubes with Stripes, Gold Tubes, White Tubes with

Stripes, Romans, and Footballs. The inclusion of these new bead types, which are noted in later site assemblages (even much smaller ones) suggests that Rogers Farm site was abandoned at a later date than those listed previously. The bead assemblage available from the Mead site is similar to that from Rogers, but the recovery of a variety of Footballs and a new bead type, Romans, place this site later than Rogers. In spite of the small bead assemblage from RMBH, the recovery of Black Tubes and Black Tubes with Red Stripes suggests a similar period of site use as Mead and Rogers, but the recovery of a new bead type, Octagonals, indicates that this site was abandoned at a later date then either Rogers or Mead. The Young site is positioned on top of all the horizontal rows since not only does it include a variety of Tubes with Stripes, Footballs, and Octagonals, but five new bead types are noted (Russian Green Rounds, Yellow Rounds, Black Tubes with red and White Stripes, Green Tubes and Green Corn).

The described seriation is simply a formal order, and can not be automatically used to infer a chronological sequence. For this transition from seriation to chronology to occur, certain assumptions must be met. A discussion of these assumptions, as well as the validation or rejection of the hypothetical order of the 17th century Cayuga sites using such temporally sensitive items

which were not included in the original seriation, is presented below.

**From Seriation to Chronology**

As mentioned above, while "seriation operates upon cultural material to establish a chronology," this chronology "must be *inferred* " (Dunnell 1970:305, 310). Before such an inference can be made, however, certain assumptions and conditions must be met. First, the units of a seriation must display characteristics of the group (Dunnell 1970: 307). In this example, the variation in the different types of European glass trade beads provides the groups from which seriation can occur. The second assumption refers to the actual units which "must always be conceived of as events rather than objects" (Rouse 1967: 158, in Dunnell 1970: 307). Since the glass beads recovered exist from time of manufacture to the present, each item takes on the temporal parameters of the site (from first to last addition) and are perceived to be illustrative of a particular temporal dimension (Dunnell 1970: 307). It is these events which are compared in the actual seriation.

The primary criteria that Dunnell uses is that a "seriation makes the hypothesis that the classes (artifact types) used are indeed "historical" or "temporal"" (Dunnell 1970:310). Indeed, since

one relies upon the classes to illustrate a particular event, it should be self-evident that these items, which constitute these classes, illustrate temporal variation, and not spatial variation. While this concern may be relevant when examining prehistoric societies, it is less of a concern for societies who not only are historic and have written documents, but also possess a mythological tradition which, in this situation, clearly define the borders of the Cayuga local area. Also, while the variation in the "frequency of occurrence" of ceramic types encountered by Dunnell at the same site is attributed to spatial variation (1970:314), the variation noted may be the result of functional differences, rather than either space or time.

Since forms vary continuously through space and time, the seriation will never eliminate the spatial dimension of variation (Dunnell 1970: 315). The other two conditions mentioned by Dunnell, which state that all groups included in the seriation must be of comparable duration and that all groups in the seriation must belong to the same cultural tradition, however, are much easier to fill. Since all groups included in this seriation include bead types which can be compared with each other, and all the sites included in this work are found on traditional boundaries of the Cayuga Nation, these criteria are satisfied.

The first criterion, however, remains a bit of a problem. While it may be possible to demonstrate that since the beads have been recovered from many locations in North America, the variation noted among the Cayuga collections is the result of temporal differences, rather than spatial variation, it is easier to demonstrate that the generated seriation is a chronology by using independent means. To do this, there exists a body of literature which discusses both Native American and European 17th century artifact types and will be used to develop this chronology.

The development of a chronology from the seriation was done by using four different types of artifacts which are found on some of the Cayuga Contact sites. Studies by Carpenter (1942) and Mathews (1980) on human effigy "September morn" figurines have noted that "Figurines are known from sites dating between 1550 and 1675, but most reported examples appear between 1590 and 1625" (Mathews 1980: 72). As can be seen from Figure 5, a substantial quantity of figurines was recovered from Genoa Fort I (16), and one from Genoa Fort II. Two figurines have also been mentioned in the literature as being recovered on Myers Station. As mentioned in the bead seriation, Genoa Fort I, Genoa Fort II, and Myers Station are identified as having similar bead assemblages, and appear to date from the first part of the 17th century.

The recovery of two Christianization rings (one I-heart and one IHS type) from Myers Station, as well as the presence of small, presently unknown, "quantities of firearms and firearm parts" suggests that this site is relatively later in the sequence than Genoa Fort I and Genoa Fort II, possibly dating to the second quarter of the 17th century (DeOrio 1978). The short descriptions of items recovered from Culley's do not allow for any reinterpretations of DeOrio's 1978 relative chronological claim that this site is later than Myers but earlier than Rogers and Mead.

The recovery of a single "type II" fire-lock (manufactured 1625-1655) and a single "type III" fire-lock (manufactured 1640 and in use until late 1640's) from the Dean site suggests that this site was most likely occupied during the middle of the 17th century (after Puype 1985: 28, 30). Besides the recovery of the European glass beads from Kipp Island, the other items recovered are not temporally sensitive and can not be used to challenge or support the bead-based seriation.

The five Christianization rings recovered from the Rogers Farm (1 embossed L-Heart, 1 embossed *Fede*, 1 engraved L-heart and 2 engraved IHS types) suggest that the site was in use during the third quarter of the 17th century (Wray 1973: 21; Mandzy 1990: 21). This absolute chronological date is substantiated by the recovery of

a single undated French *liard* coin (possible circa mid-17th century, Sempowski 1990, pers. comm) and a single fire-lock plate (type V-C; after Puype 1985:79) which is dated in its period of manufacture between 1655 and 1670 (Puype 1985: 50).

A number of temporally sensitive artifacts were recovered from the Mead site, including: four French *liard* coins (one dated 1657), a quantity of Christianization rings (which when taken together appear to date to the third quarter of the 17th century), and 18 lock plates which date approximately "1660-1680" (Puype 1985:79). The lack of available materials from the Lamb site does not allow for a more precise dating than post mid-17th century. The recovery of a single French *liard* coin (dated 1659) as well as six Christianization rings (1 IHS, 1 Christ symbol/X plus flag, and 4 engraved L-heart type rings) from the Rene Menard Bridge Hilltop site illustrate the fact that the site could not have been used before the third quarter of the 17th century (Wray 1973: 21; Mandzy 1986: 56). The four Christianization and finger rings recovered from the Young site (1 abstracted *Fede* , 1 embossed ring with an effigy of a saint, 1 engraved L-Heart and especially the 1 ring with 7 glass stones) illustrate the later date of this site's occupation (Wood 1974:101; Mandzy 1986: 57).

**The Chronology**

The chronology of Cayuga sites, which is provided in Figure 3, was developed from the bead-based seriation by utilizing the absolute dates provided by specific artifact studies. While Locke Fort may be the earliest Cayuga site which displays material evidence of European contact (Follett 1946c:2), it is only on GFI that the first noted assemblage of European materials was noted in the Cayuga archaeological culture. Glass beads are popular, and a variety of Round and Chevron beads have been encountered at this site. While there is great variation between the bead assemblages at Genoa Fort I (GFI) and Genoa Fort II (GFII), these inconsistencies are believed to illustrate the differences in the quantity of beads available for study, rather than depict any temporal or spatial differences (1,127 from GFI, 37 from GFII). Indeed, given the close proximity between GFI and GFII (GFII is located on the east side Salmon Creek at the entrance to GFI), GFI and GFII are more likely to be components of the same site, rather than two independent sites. Nevertheless, in keeping with the system set up by the excavators, GFI and GFII will continue to be treated as independent entities.

The next site in the chronology is Myers Station. The bead assemblage, in spite of its small number, is clearly similar to that of GFI, since it contains a variety of both Chevrons and Rounds.

Also, while the recovery of so-called "September morn" figurines (circa 1590 - 1625; Mathews 1980: 72) has been noted, the recovery of two Christianization rings and the notation of firearms and firearms parts (DeOrio 1978) suggests that this site post-dates GFI.

The site following Myers Station in the chronology is Culley's. While the limited information presented by DeOrio is not elaborate, the listed bead types support his claim that Culley's was occupied after Myers Station and before the Rogers and Mead Sites (DeOrio 1978).

The next two sites to be described in the chronology are the Kipp Island and Dean Sites. Since the small handful of items known to have been recovered from Kipp, before the island was destroyed in 1950 during the construction of the New York State Thruway, only allows for the inference that the site post-dates Culley's and predates Rogers, its relationship with Dean can not be determined. Also, while the material from Dean offers a more complete picture of the archaeological cultural assemblage {the absence of all but the most common Rounds, the recovery of a single "type II" fire-lock (manufactured 1625-1655; Puype 1985:28) and a single "type III" fire-lock (manufactured 1640 and in use until late 1640's; Puype 1985:30)} which suggests that this site was used after Culley's and before Rogers (most likely during the middle of the 17th century),

the relationship to Kipp can not be determined given the later's extremely limited collection. The chronological placement of the Kipp Island Site before the Dean Site is therefore arbitrary.

The Rogers Site is the next site in the chronology. The bead types noted include a variety of Tubes and the presence of Footballs, while all but the most common Rounds are absent. These changes in the bead types, along with the recovery of a single undated French *liard* coin (possible circa mid-17th century; Sempowski 1990, pers. comm), five Christianization rings (circa. third quarter of the 17th century; Wray 1973:21; Mandzy 1990: 21), and a single fire-lock plate {(type V-C; after Puype 1985:79) which is dated in its period of manufacture between 1655 and 1670 (Puype 1985: 50)} all indicate that this site (event) post-dates all the above mentioned sites.

The Rogers Site is followed in the chronology by the Mead Site. From the seriation, it is known that Tubes were immensely popular, as were Footballs. Also, Romans are first noted. The recovery of a dated French liard coin provides a *terminus post quem* (*tpq* ) of 1656, while a quantity of Christianization rings (when taken together appear to date to the third quarter of the 17th century), and 18 lock plates which date approximately "1660-1680" (Puype 1985:79). For these reasons, the Mead Site is placed in the

chronology at this time.

While the lack of available materials from the Lamb site does not allow for a more precise dating than post mid-17th century, it is commonly believed that Lamb is contemporary with Mead, given their close proximity to each other (Follett 1946e, DeOrio 1978). The account by Wentworth Greenhalgh (1677, in O'Callaghan 1850:16) which mentions that "The Caiougos (Cayuga) have three townes about a mile distant from each other" is believed to refer to both Lamb and Mead (the location of the third towne is unclear from the available archaeological literature).

The next site in the chronology is Rene Menard Bridge Hilltop (RMBH). In spite of the small bead sample size, a limited variety of Tubes were noted, as well as new bead shape, Octagonals. The recovery of a single French *liard* coin (*tpq* 1659) suggests, that the site (event) illustrates the fact that the village could not have been abandoned previous to 1659. Also, the recovery of six Christianization rings (1 IHS, 1 Christ symbol/X plus flag, and 4 engraved L-heart type rings) suggests that this site was most probably occupied during the third quarter of the 17th century (Wray 1973:21; Mandzy 1986:56). For these reasons, the RMBH is placed in this location in the chronology.

The most recent site in the chronology is Young. From the available bead assemblage, the variety of Tubes is noted, as are Octagonals, two new colors of Rounds (Russian Green and Yellow), and a new bead shape, Corn. The recovery of a finger ring with glass stone insets and three Christianization rings (1 abstracted *Fede* , 1 embossed ring with an effigy of a saint, 1 engraved L-Heart and especially the 1 ring with 7 glass stones) illustrate the later date of this site's occupation (Wray 1973:21; Wood 1974:101; Mandzy 1986: 57).

## Conclusions

In spite of the limitations presented by the existing collections, a way of temporally organizing the 17th century Cayuga sites was developed by using the seriation method. While an exact chronology was not needed for this study (given the probability that more than one site was in use by the Cayuga at any given time; Wentworth Greenhalgh 1677, in O'Callaghan 1850:16), the common problem of demonstrating that the seriation is indeed a chronology was avoided by using independent means (artifact studies and the historical record). Also, since "Most seriations probably do represent at least gross chronologies" (Dunnell 1970:315), the results of the seriation are adequate for the following study. The

ordering of sites is not the purpose of this study, rather it is only a stepping stone which will allow one to begin examining the changes that occurred in the Cayuga Iroquois society by way of the archaeological culture during the century of initial European Contact.

| | GPI | GPI | Myers | Culley | Kipp | Dean | Roger | Mead | Rabin | Young |
|---|---|---|---|---|---|---|---|---|---|---|
| BLUE ROUND CHEVRONS | x | | x | | | | | | | |
| WHITE ROUND CHEVRONS W BLUE AND RED STRIPES | x | | x | | | | | x | | |
| UNION BLUE CHEVRON TUBES (KIDD TYPE I/IK2) | x | | | x | | | | | | |
| BLACK ROUNDS | x | | | | | x | x | x | x | x |
| BLACK ROUNDS W RED IN WHITE STRIPES | x | | | | | | x | | | x |
| BLACK AND WHITE MARBLED ROUNDS | | | | | | | | x | | x |
| UNION BLUE ROUNDS | x | x | | | x | | x | | | x |
| FRENCH HORIZON BLUE ROUNDS | x | x | x | x | x | | x | x | x | x |
| FRENCH HORIZON BLUE ROUNDS W 4 WHITE STRIPES | x | x | x | x | | | | | | |
| FRENCH HORIZON BLUE ROUNDS W 4 RED STRIPES | x | | x | | | | | | | |
| RED ROUNDS | x | | x | x | | x | x | x | x | x |
| RED ROUNDS W WHITE STRIPES | x | x | x | | | | | | | |
| RED ROUND W WHITE AND BLUE STRIPES | | | x | | | | | | | x |
| WHITE ROUNDS | x | x | | | | | x | x | | x |
| BLACK TUBES | | | | | | x | x | x | x | x |
| BLACK TUBES W RED STRIPES | | | | | | | x | x | x | x |
| BLACK TUBES W WHITE STRIPES | | | | | x | | x | x | | x |
| BLACK TUBES W RED IN WHITE STRIPES | | | | | | | x | x | | |
| UNION BLUE TUBES | x | | x | x | x | x | x | x | x | x |
| UNION BLUE TUBE W 4 RED STRIPES | | | | | | | x | x | | |
| FRENCH HORIZON BLUE TUBES | | | x | | | | | x | | x |
| RED TUBES | x | x | x | x | x | x | x | x | x | x |
| RED TUBES W WHITE STRIPES | | | | | | | | x | | x |
| RED TUBES W BLUE IN WHITE STRIPE | x | | | | | | | x | | |
| RED TUBES W WHITE AND BLUE STRIPES | | | x | | | | | | | x |
| TWISTED RED TUBES | x | | | x | | x | x | x | | x |
| GOLD TUBES | | | | | | | x | x | x | x |
| WHITE TUBES | x | | | | | x | x | x | | |
| WHITE TUBES W RED STRIPES | | | | | | | x | x | | x |
| WHITE TUBES W BLUE STRIPES | | | | | | | | x | | x |
| CLEAR WHITE TUBES | | | | | | | x | | x | |
| GREEN TRANSLUCENTS | | | | x | | | | x | | |
| UNION BLUE FOOTBALLS | | | | | | | | x | | x |
| RED FOOTBALLS | | | | | | | x | x | | |
| UNION BLUE OCTAGONALS | | | | | | | | | x | x |
| CLEAR OCTAGONALS | | | | | | | | | x | x |

**Figure 4a** Cayuga Bead Seriation

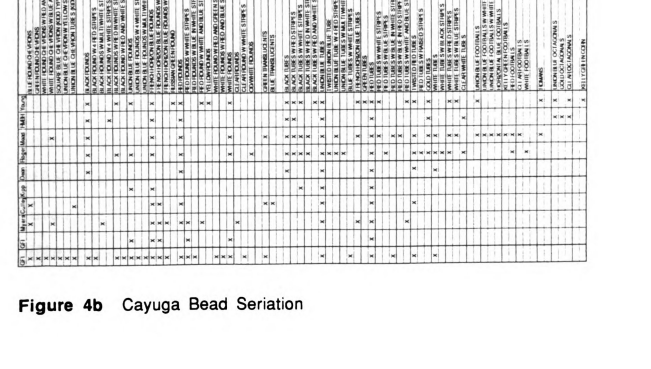


**Figure 4b** Cayuga Bead Seriation

## CHAPTER 4

### THE CAYUGA ARCHAEOLOGICAL CULTURE

While different models of Cayuga prehistory have been proposed, (Follett 1946, Nelson 1977, DeOrio 1980: 85, Niemczycki 1984), there is little agreement in the conclusions presented (DeOrio 1989). The similarities in pottery design (Skinner 1921: 30, MacNeish 1952, DeOrio 1980) and settlement pattern (Ritchie and Funk 1973) have resulted in the linking of the prehistoric Cayuga with the prehistoric Seneca (Skinner 1921: 30 and 80; MacNeish 1952; DeOrio 1980; Niemczycki 1984: 21; DeOrio 1989). As more prehistoric Cayuga and Seneca data became available (Hayes 1963, Barber 1965, Pratt 1968, Hayes and Prish 1973, Ricklis 1974, Nelson 1977), the prehistoric data available made further interpretations possible (MacNeish 1976, DeOrio 1980, Niemczycki 1984, DeOrio 1989). While certain aspects of this development are still problematic, the result of Niemczyski's 1984 study clearly illustrates the fact that "there were local antecedents to both the historic Seneca and the Cayuga in their respective territories... by 1250 A.D. These developments were probably an outgrowth of an even earlier local Early Owasco (c. 1000-1100 A.D.) phase" (Niemczyski 1984: viii).

The first evidence of Contact in Cayuga Territory comes from the Locke Fort site. The single Contact artifact recovered, an European copper/brass fragment, is from refuse and gives no indication that it was especially valued. In all probability, this artifact was treated in same manner as any other object received through trade. Artifacts and raw materials from outside the Cayuga Territory, such as marine shells from the east coast and exotic flints from the western Ohio region, are routinely recovered from early Iroquois sites and attest to the extensive exchange network in existence prior to Contact (Bradley 1987: 89). If it were not for the actual European origins of this artifact, the site could be classified as a late Proto-Contact Cayuga site.

The site description of Locke Fort, however, is not only interesting for its description of the earliest Cayuga Contact artifact recovered. The material culture of the site, as well as features and site location provide insights into the Cayuga way of life prior to direct European Contact. Artifacts recovered attest to the three dominant subsistence activities; fishing (bone fish hooks and a notched stone net-sinker), hunting (triangular projectile points, a flaker, and a spear point), and horticulture (corn storage pits). Tool manufacture is illustrated by the recovery of flint knives, an antler knife handle, bone awls, celts, hammerstones,

rubbing stones, as well as debitage. The four different types of pottery sherds recovered - a complete earthenware vessel, the "coronet" pottery pipe, and several pottery engravers - not only serve to illustrate the fact that ceramic vessels and pipes were in use, but also show that the Cayuga were engaged in the manufacture of these items as well. Burials excavated from the site were all flexed, and only one produced two grave goods (a ceramic vessel and a turtle shell rattle). Beads and pendants recovered include a bone bead and deer phalanx cone bangles. The site is fortified and occupies a heavily defensive position.

The first Cayuga Contact site from which quantities of European items have been recovered is the naturally defended Genoa Fort (the Genoa Fort I and the Genoa Fort II sites). Particular European goods, such as glass trade beads which fit into the existing artifact typology, were quickly integrated into the Cayuga material culture. Iron, a material superior in strength and durability over the traditionally available materials, quickly came to be used in producing traditional tool types. The variety of traditional items made from iron recovered from the Genoa Forts (awls, chisels, drills, fishhooks, gouges, saws, and scrapers) illustrates that the Cayuga were able to utilize the potential of the new material to provide such items as they needed.

One of the best examples of the integration of European materials to fulfill the specific needs of the Cayuga is illustrated by the iron knife blade assemblage. While iron knife blades are recovered in far greater numbers than those of flint or copper/brass, all the blades show signs of modification. Standardization in the blade types noted, regardless of the material or area of origin (American or European), suggests the existence of particular blade forms which were designed to fulfill a particular function. The existence of these blade forms in both stone and metal suggests that the functions for which these blades were created predate the introduction of iron.

The frequent recovery of European iron axe fragments, as well as occasional finds of complete axe heads, serves to illustrate the presence of these items in the Cayuga material culture. The primary and possible secondary functions of these items in Cayuga society, however, is not that clear. While the functional superiority of iron over lithic tools has been substantiated by quantitative comparison studies (Saraydar and Shimada 1971, Trigger 1976, 1: 412), the manner of use may have been very different from that which the Europeans expected (Bradley 1987:140). From the quantities of scrap fragments of iron trade axes found on all early Iroquois Contact sites, it has been demonstrated that these European tools were

frequently cut up and reformed into other tool types, such as knives, chisels and celts (Bradley 1987: 146; Wray et. al. 1991:324). While the reuse of axes on early Contact sites has been attributed to the abilities of maximizing the scarce iron commodity after breakage (Trigger 1976, 2: 411), or as an initial source of a valuable raw material rather than as useful tools (Bradley 1987: 140), another possibility needs to be examined.

The proto-Contact Cayuga artifact assemblages do not include any items which parallel the iron trade axe. The traditional stone axes and celts, which are the closest in conformity, are more compact and have a much narrower cutting blade than the European trade axe. Since tool usage primarily relies upon motor skills, a learned behavior (Quimby and Spoehr 1951: 147), it is possible that the iron trade axe with its large cutting blade was unwieldy in its original form and was not utilized in the European fashion. The commonly noted scoring which occurs on the lower part of the bit is usually attributed to the removal of a celt blank (Bradley 1979, in Bradley 1987:146-147). The removal of this blank, however, would dramatically reduce the width of the remaining blade bit, giving the axe a working edge functionally equivalent to traditional celt and adze blade widths. Also, the classification of recovered iron axe heads with reduced bit length (and thus widths) as "broken" or "

substantially worn" may in fact be a result of directed actions which were carried out on purpose to reduce the width of the axe head in order to make it more suitable for use by its new owners. Given that almost all European items integrated by the Cayuga at this time are being modified to fulfill existing, traditional functions, there is little evidence to suggest that trade axes are being utilized in their European-designed roles.

Copper/brass objects are also frequently re-used to create articles familiar to the Cayuga (bracelets, weaving needles, and projectile points). The identification of 347 pieces of cut copper/brass scrap, as well as melted copper/brass fragments, is indicative of how quickly the Cayuga gained control in the shaping and re-constructing of European items into their own desired forms.

The only objects recovered that do not directly correspond to the Proto-Contact artifact assemblage are: two iron keys, two copper/brass thimbles, a section of iron mail, and a piece of iron furniture. While a case could be made that each of these items had not yet been modified (or for that manner, was found to be unsuited for re-use), it is also possible that these items served some as yet undetermined use, such as prestige items or curiosities.

In spite of the adaptation of new raw materials into the artifact assemblage, the only change in cultural behavior patterns

noted is the inclusion of clay pipes in burials. Genoa Fort is on a defendable promontory, well away from any major water route. Corn, beans, and squash are found stored in pits throughout the village area, as at Locke Fort. Fishing is still a part of subsistence activity but now iron, as well as bone fish hooks, are used. In hunting, copper/brass points are used along with flint points, as are iron and bone spears. Pottery containers are found on the site, as are large quantities of sherds, shale pottery engravers, and a fired Cayuga pottery waster.

The initial recovery of human effigies, especially of the so-called "September morn" figurines, is an interesting phenomenon. Not encountered on any pre-Contact sites, such human effigy figures are almost edxclusively found in Iroquois child burials (Carpenter 1942, Mathews 1980: 74, Wray, et. al 1991:218-223). Given the radical increases in child and young adult fatalities, in some cases as a result of exposure to European illnesses against which the Native Americans had no natural immunities, it is possible that these figurines were used as magical charms against illness (Saunders 1991, pers. comm.). While the precise symbolism these early 17th century figurines is as of yet undetermined, 20th century Iroquois ethnographic descriptions identify tiny human figures as "mythical dwarfs who have numerous powers, including ... control

over certain illnesses" (Mathews 1980: 82). The recovery of fifteen human effigy figurines from refuse, including three in the process of manufacture, suggests a possible preparational center of these figures at Genoa Fort.

Given the stress placed upon Iroquois society by the epidemics, it would not be unexpected to find an increase in those behavioral practices which would attempt to alleviate the stress. The recovery of large quantities of effigy figurines in child burials (only a single example has been reported being recovered from an adult burial Carpenter 1942: 106) suggests that these items may have been used in an attempt to neutralize the effects of illness. Given the lack of long term success of these items in alleviating illness, figurines discontinue in use (few figurines have been reported on sites post-dating 1650).

Objects recovered from the Myers Station, Culley's and Dean sites suggest that the Cayuga are continuing to adapt European materials. European materials continue to be reshaped to fulfill the functions of traditional tool artifact types, although the forms taken by these goods often resemble the European form more than the American one. European trade axes are recovered in quantity, which suggests that any deficiencies in the supply of iron for tool manufacturing have been overcome.

Copper/brass and iron continue to be refashioned by the Cayuga to fill the demand for metal items, especially knives. The great variety of knife blade types once encountered, however, has diminished, as short, circular blades and scalpels fall out of use. Awls, needles, bracelets, and fishhooks continue to be made from European goods and be used alongside of tools made from bone and antler.

European goods, however, are no longer strictly used to fulfill traditional artifact roles. Firearms, a totally European item, are recovered in small numbers, and not only illustrate the degree to which the level of trade relations have developed between the Cayuga and the Europeans, but also depict a conscious desire by the Cayuga to acquire these arms. Indeed, the European arms provided to the western Iroquois (Seneca and Cayuga) are technologically more advanced than the firelocks used by most of the standing European armies who continued to rely upon matchlocks and wheellocks "well into the second half of the seventeenth century" (Puype 1985:87).

Also, European-made finger rings, often depicting Roman Catholic iconography, illustrate the beginning of a conspicuous adaptation of the trappings of European goods at Myers Station. For the first time, European spoons and copper/brass jew's harps are found in the Cayuga artifact assemblage at the Dean site.

Pottery containers, the dominant vessel form at Genoa Fort I and Genoa Fort II, are found in much decreased quantity at Myers Station (DeOrio 1978). Besides the recovery of a single pottery vessel from a burial at Culley's, pottery sherds are rarely ever encountered on Cayuga sites. Also at this time, copper/brass kettles are found in ever-increasing quantities.

Stone tool technologies are still in use, although at an ever-decreasing rate as metal replaces stone as the blade tool material of choice. The presence of bone flaking tools suggests that the stone working technology is still practiced, although in an ever decreasing amount. Projectile points recovered are increasingly made out of copper/brass, slowly replacing points made of flint or bone. Certain stone tools, such as small numbers of celts, hammerstones, and mullers, continue to be recovered.

The Cayuga representation of effigies dramatically decreases at this time. Of the effigies depicted as individual figurines and maskettes, only a few "September morn" figurines are found at Myers Station. Pipes, an item traditionally used only for religious and medical purposes, continue to be decorated with effigies. Ceramic pipes are more frequent than stone pipes, but for the first time, European white ball clay pipes, as well as American-made copies of trade pipes, are found.

Cayuga society was definitely undergoing change. Sites which post-date Myers Station no longer occupy naturally fortified areas, which may indicate the growth of Cayuga military power as a result of the acquisition of firearms. Storage pits, frequently noted on earlier Cayuga Contact sites, are no longer recovered. Excavated burials show an increase in both the frequency and diversity of materials being included with the dead.

Artifacts recovered from Rogers Farm, Mead Farm, Lamb and Rene Menard Bridge Hilltop sites show the extent to which the Cayuga culture has changed from the Locke Fort site. Tools are more likely to be made from European materials rather than locally available items. Awls are predominantly made from iron, as are chisels, axes, scrapers, and saws. Knives are predominantly iron and of European make, although a few native stone knives and flint blanks have been reported. Even the most simple of tool types, such a hammer, may be an imported European item rather than be locally made from stone.

Non-utilitarian objects, however, continues to use locally available materials. Combs are frequently made out of antler and bone, and depict different types of human and non-human effigies. Native clay pipes are found in large quantities and frequently also include effigies. Pottery and stone maskettes are frequently

recovered from these sites. Also, a single organic "religious" item (two snake skeletons wrapped in leather) has also been recovered from the Rogers Farm. Rattles are frequently recovered and continue to be made from turtle shell. In addition, beads and pendants are not limited to glass beads and copper/brass pendants, but also include items made of shell, bone and red shale/catlinite.

At the same time, European non-tool artifacts also play a larger role in the material culture. A copper rattle, jew's harps, unmodified blade weapons, firearms, musket bore cleaners, powder measures, bullet molds, lead bars, coins, an apothecary weight and measure, a magnifying glass, bells, a copper/brass picture frame fragment, iron corset hooks, an iron cartographic compass, window glass, an iron sickle, mirrors, mirror boxes, decorated European wooden box fragments, white clay ball pipes and smoker's companions have been recovered from these sites. The recovery of such quantities of diverse materials illustrates the level to which the Cayuga have adapted European goods as part of their everyday lives.

European religious items also are recovered from sites of this period. Copper/brass finger rings (some depicting Roman Catholic iconography), crucifixes, and medals (all depicting Roman Catholic images) have been found in large quantities. The burials excavated

at the Rogers Farm, Mead Farm and Lamb sites reflect substantial change in burial patterns. Grave goods are deposited in great numbers, and are no longer limited to a few particular item types. Rather, any type of artifact, American or European, can be included in the interment. The recovery of a copper/brass rattle from Mead Farm suggests that even traditional religious items utilize the "mystical powers" of rare earth elements. Burials recovered show great variation in the positioning of the body; flexed, bundle and extended interments being most frequently encountered. Indeed, the variety exhibited in the mortuary practices of the archaeological culture illustrate the different ways in which the living individuals came to view death, which is but a mirror reflection of life itself.

Both the amount and variety of the items recovered illustrate the degree of cultural change. Iron and copper/brass items are no longer simply providing raw material to be substituted for bone and stone in the manufacture of traditional artifact types. Rather, these unparalleled European items are new artifact types which have created a place for themselves in the Cayuga material culture. The adaptation of these European items on such a massive scale not only indicates that the Cayuga had extremely good trading relations with the Europeans (the types of firearms are superior to those in use by the majority of European armies at the time), but that the Cayuga

are engaging in a conspicuous consumption of European material goods.

While the existing archaeological data is not that great, items from the Young site illustrate the degree to which the Cayuga culture adapted European items into its system at the end of the 17th century. The continuous consumption of European goods by the Cayuga, as seen at the Rogers Farm, Mead, Lamb, and Rene Menard Bridge Hilltop sites, continues at the Young Farm site, although to a somewhat lesser degree. There is a distinct decrease in both the variety and quantity of "exotic" non-tool European items recovered. European artifacts which are fulfilling the functions of traditional tools types are the predominant tool types recovered at the site. Objects which display the use of European iron and copper/brass as a material to make traditional objects are: some copper/brass points, a few iron awls, an iron needle, and copper/brass needles. The only artifacts which could suggest a modification in form for a use other than the originally designed European function are a single piece of window glass rounded upon one edge for use as a scraper and a single piece of unworked European iron rod, 5 cm thick and 19 cm long. No other objects display any sign of modification which could indicate a change in the function of the European-designed artifact.

As with the above mentioned sites, effigy combs, maskettes, beads, pendants, and effigy pipes continue to be made from non-European materials. Functional bone and stone tool types, such as bone awls and flint points, are still to be found in small numbers.

A few new European artifact types are found at the site. An European iron hoe, a copper/brass host container, a round iron file, and an iron container fragment have all been reported to be found at the site. While a glass bottle (Genoa Fort I) and two glass bottle sherds (Dean) have been previously reported at other sites, it is at Young where glass bottles and glass bottle sherds are found in substantial numbers.

The types of burial recovered at the Young site vary from those reported earlier. Coffin burials appear in addition to the types reported at the Rogers and Mead (single and double flexed, multiple burial and bundle burial). There is also a substantial drop in the amount of grave goods interred with the dead. While European non-tool artifact types are found far less frequently at the Young site than at the previous Mead Farm site, European Christian items (crucifies, medals, a host container) continue to be found in substantially greater quantities than previously reported at any other site.

**Cayuga Data Summary**

Clearly, a few distinct phases of European trade and material usage are evident in the Cayuga materials discussed. From the changes in the treatment and the types of European goods recovered, it is possible to illustrate particular social changes which occurred in Cayuga society. Some of these changes are gradual adaptations which display no distinct patterns. Other transitions, however, are more clearly indicated.

Materials from the earliest discussed Cayuga site, the Locke Fort site, are all Proto-Contact artifact types. Artifacts recovered are all traditional artifact types made of either local or non-local materials. The single European artifact was treated the same as any other non-local material in this analysis.

With the establishment of trade colonies by the French at Quebec (1608) and the Dutch at Fort Orange/Albany (1624), the trade routes were shortened and substantial quantities of European goods appear on the Cayuga sites of Genoa Fort I and Genoa Fort II. These new materials are treated as both a raw material and a new type of artifact which are functionally equivalent to traditional artifact types. A few artifacts are also recovered that have no functional Cayuga equivalent (iron keys, mail armour, bells). Most objects recovered, however, are functional tool types. The adaptation of

European items at the Genoa Fort I and Genoa Fort II sites illustrate the treatment of European objects, for the most part, as a raw material to be molded into existing artifact forms. European knife blades are substantially modified for use, while axes are cut apart for use as celts.

Materials from the Myers Station, Culley's, and Dean sites illustrate the cultural transitions underway. From the historical literature, it is known that the Cayuga are becoming more involved with the fur trade network, devoting more of their energies to collecting and processing beaver pelts. Time once spent in the manufacture of traditional items, such as pottery vessels, is re-directed toward acquiring functionally equivalent European objects (copper/brass kettles) to replace the time-consuming items previously made by the Cayuga. This temporal re-alignment makes it possible to devote more energy to the processing of fur pelts for the European market.

The majority of artifacts recovered shows this transition from the manufacture of traditional artifact types from European materials to the replacement of traditional artifacts with functionally equivalent European tools (from iron celts to iron axes). For the first time, European objects that have no known traditional function are recovered from the sites (firearms, jew's harps) and

native copies of European artifact types (gun flints, a white ball clay European pipe) are encountered. The transition from fortified sites to unfortified sites noted at this time may be a result of the defeat of the Susquehanna.

The material culture from the Rogers Farm, Mead Farm, Lamb, and possibly, the Rene Menard Bridge Hilltop sites shows that the Cayuga have the purchasing power not only to supply their firearm needs, but also to purchase any European item they desire. Artifacts recovered are predominantly either European artifacts which are functionally equivalent to traditional artifact types, or are European artifacts with no known traditional equivalents. To service the new European artifact types in use, other new European artifact types are also now in use (bullet molds, powder horns).

In spite of their increased purchasing power, however, traditional items continue to be made. Non-functional artifact types recovered include native-produced transitional artifact types (pipes, effigies, rattles) as well as religious Roman Catholic iconography (medals, crucifixes).

Materials from the Young site suggest a decrease in the conspicuous consumption which previously dominated Cayuga purchasing decisions. Burial goods are less frequent in number, and European trinkets appear to be less varied than those from the Mead

site. Artifacts recovered, however, include examples from all six artifact categories: traditional artifact types made from local (bone awls) and non-local materials (iron awls), European artifacts which are functionally equivalent to traditional (iron axes) and non-traditional (firearms) artifact types, European artifact types made from local materials (native gun flints), and European artifacts which service the new artifact types (iron files). Artifacts which represent the European Roman Catholic belief system (a *pyxis* or host box, an effigy of the Madonna with Child, extended coffin burials) indicate the influence of the Jesuit missionaries among the Cayuga. Effigy pipes and bone effigy combs continue to be found in the Cayuga material culture.

**Table 1** Summary Table of Appendices

| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | Locke | CFI | CF II | Myers | Culley | Kipp | Dean | Rogers | Mead | Lamb | RMBH | Young |
| 2 | ANTLER FLAKING TOOLS | 1 | 59 | | (1 | • | | 11 | | 7 | | | 1 |
| 3 | GOUGES | | 1 | | | | | | | | | | |
| 4 | ENGRAVERS | | 3 | | | | | | | | | | |
| 5 | HAMMERSTONES | 1 | 5 | | • | • | | | 1 | | | | (1 |
| 6 | IRON EUROPEAN HAMMERS | | | | | | | | | 1 | | | |
| 7 | MULLERS | | 3 | | • | • | | | | | | | |
| 8 | PESTALS/GRINDING STONES | | • | | 1 | | | | | | | | |
| 9 | METATES | | (1 | | | | | | | | | | |
| 10 | ANVIL STONES | | (4 | | | | | | | | | | |
| 11 | DIGGING STICKS | | | | | | | | 1 | 1 | | | 1 |
| 12 | IRON SICKLES | | | | | | | | | 1 | | | |
| 13 | IRON HOES | | | | | | | | | | | | 1 |
| 14 | ABRAIDING STONES | | 1 | | | | | | | | | | |
| 15 | IRON FILES | | | | | | | | | | | | (2 |
| 16 | CELTS | | | | | • | | | | | | | |
| 17 | stone celts | 3 | 15 | | | | | | | 1 | | | (2 |
| 18 | iron celts | | 2 | 1 | | | | | | | | | |
| 19 | AXES | | | | | | | | | 11 | | | |
| 20 | complete iron axes | | 1 | | • | • | | | 4 | | (1 | | 1 |
| 21 | reworked iron axe fragments | | 20 | 1 | | | | | | 2 | | | |
| 22 | IRON SAWS | | 2 | 3 | | | | 1 | 2 | | | | |
| 23 | CHISELS | | | | | | | | | 1 | | | |
| 24 | bone chisels | | 1 | | | | | 1 | | | | | |
| 25 | iron chisels | | 20 | 2 | | | | 1 | 1 | 2 | | | |
| 26 | KNIVES | | | | | | | | | 33 | | | |
| 27 | stone knives | • | 1 | | 1 | | | 2 | | | | | |
| 28 | copper/brass knives | | 2 | | | | | 1 | | | | | |
| 29 | iron knives | | 7 | | • | • | | 5 | 6 | 11 | | | 5 |
| 30 | iron knife tips | | 6 | | | | | | | | | | |
| 31 | iron knives w long, pointed blades | | 9 | 1 | | | | 3 | 2 | 15 | | | 2 |
| 32 | iron knives w short, pointed blades | | 3 | | | | | 1 | | 1 | | | |
| 33 | iron knives w long, blunted blades | | 1 | | | | | | 1 | 7 | | | |
| 34 | iron blades w short, blunted blades | | 6 | | | | | 3 | 4 | 4 | | | |
| 35 | iron knives w short, circular blades | | 5 | | | | | 1 | | | | | |
| 36 | iron folding knives | | 1 | | | | | | 2 | 5 | | | 1 |
| 37 | iron scalpels | | 2 | | | | | | | | | | |
| 38 | antler knife handels | 1 | | | | • | | 1 | 4 | 2 | | | |
| 39 | SCRAPERS | | | | | | | | | | | | |
| 40 | flint scrapers | | 13 | 1 | 1 | | | | | 2 | | | |
| 41 | glass scrapers | | | | | | | | | | | | (1 |
| 42 | iron scrapers | | 6 | | | | | 2 | 4 | 6 | | | (1 |
| 43 | RUBBING STONES | • | | | | | | | | (5 | | | |
| 44 | REAMING TOOLS | | 2 | | | | | | | | | | |
| 45 | DRILLS | | | | | | | | | | | | |
| 46 | flint drills | | 1 | | 1 | | | 1 | | | | | |
| 47 | iron drills | | 1 | 1 | | | | | 1 | | | | |
| 48 | AWLS | | | | | | | | | | | | |
| 49 | bone awls | • | 143 | | | • | | 11 | | | | | 2 |
| 50 | copper/brass awls | | | 3 | (1 | • | | 3 | | | | 1 | |
| 51 | iron awls | | 43 | 2 | (1 | • | | 1 | | 10 | | | 3 |
| 52 | NEEDLES | | | | | | | | | | | | |
| 53 | bone needles | | 70 | | | | | | | 1 | | | |
| 54 | copper/brass needles | | 2 | | (1 | | | 1 | | 1 | | 1 | 4 |
| 55 | iron needles | | | | | | | | | | | | 1 |
| 56 | IRON SCISSORS | | 6 | | | | | 3 | 1 | 4 | | | 3 |
| 57 | IRON STRIKE-A-LIGHTS | | | | | | | | | 9 | | | (1 |
| 58 | FISK HOOKS | | | | | | | | | | | | |
| 59 | bone fish hooks | 2 | 5 | | | | | | | | | | |
| 60 | copper/brass fish hooks | | 2 | | • | | | | | | | | (2 |
| 61 | iron fish hooks | | | | | | | | | 3 | 1 | | 2 |
| 62 | PEBBLE STONE NET SINKERS | 1 | 1 | | | | | | | | | | |
| 63 | HARPOONS | | | | | | | | | | | | |
| 64 | bone harpoons | | 14 | | | | | 1 | | (1 | | | |
| 65 | iron harpoons | | 1 | | | | | | | 2 | | | (1 |
| 66 | BONE / ANTLER | | | | | | | | | | | | |
| 67 | bear | 1 | 42 | | | | | 1 | 2 | 15(6 | | | 3 |
| 68 | elk | | 4 | | | | | 1 | | | | | |
| 69 | deer | 1 | 66 | | | | | 6 | | 2 | | | 1 |
| 70 | dog/wolf | | 33 | | 1 | | | | | 1 | | | 5 |
| 71 | beaver | | 28 | | | | | 2 | | | | | |
| 72 | porcupine | | 10 | | | | | | | | | | 12 |
| 73 | turtle | | | | | | | | | 1 | | | 1 |
| 74 | racoon | | 1 | | | | | 1 | | 1 | | | |
| 75 | bird | | 2 | | | | | | | 6 | | | 2 |
| 76 | fish | | | | | | | | | | | | • |
| 77 | pig | | 1 | | | | | | | | | | |
| 78 | unidentified bone/antler | | 60 | 2 | 3 | | | 21 | | 5 | | | 5 |
| 79 | IROQUOIS EARTHENWARE CONTAINERS | 1 | 4 | | 2 | (1 | | | | | | | |
| 80 | large Iroquois earthenware containers | | 2 | | | | | | | | | | |
| 81 | small Iroquois earthenware containers | | 4 | | | | | | | | | | |
| 82 | Iroquois earthenware sherds | 6 | 96 | 4 | 4 | | | | | | | | |
| 83 | EUROPEAN CERAMICS | | | | • | | | | | | | | • |

## Table 1 (cont'd)

| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | COPPER/BRASS KETTLES | | | | • | • | | | 10 | 10 | (4 | (1 | 5 |
| 85 | copper/brass kettle fragments | | 29 | | (2 | | | 16 | 1 | 2 | | (1 | 3 |
| 86 | copper/brass kettle patches | | 2 | | | | | 2 | 5 | 1 | | | |
| 87 | PEWTER CUPS | | | | | | | | 1 | | | | |
| 88 | PEWTER MUGS | | | | | | | | 1 | | | | |
| 89 | WOODEN BOWLS | | | | | | | | | | | | 1 |
| 90 | IRON KETTLES | | | | | | | | | | • | | |
| 91 | IRON OCTOGONAL BOXES | | | | | | | | | | | | 1 |
| 92 | IRON MIRROR BOXES | | | | | | | | 2 | 14 | (2 | | 1 |
| 93 | EUROPEAN GLASS BOTTLES | | (1 | | | | | 2 | | | | | 1 |
| 94 | ARMOUR | | • | | | | | | | | | | |
| 95 | EDGED WEAPONS | | | | | | | | | | | | |
| 96 | reused rapier blade fragments | | 3 | 1 | | | | 2 | | | | | |
| 97 | unmodified European rapier blades | | | | | | | | 1 | | | | |
| 98 | unmodified European stiletto blades | | | | | | | | 1 | | | | |
| 99 | European edged weapon parts | | | | | | | | | 1 | | 1 | (1 |
| 100 | PROJECTILE WEAPONS | | | | | | | | | | | | |
| 101 | bone spear points | 1 | 21 | | | | | | | | | | |
| 102 | iron spears | | 2 | | | | | | 5 | 1 | | (1 | |
| 103 | conical bone points | | | | | | | 16 | | 1 | | | 2 |
| 104 | conical copper/brass points | | | | | | | | | | | (1 | |
| 105 | triangular flint points | 2 | 665 | 15 | 11 | • | | 4 | 3 | | | (1 | • |
| 106 | copper/brass flint points | | 160 | 30 | (6 | • | | 20 | 13 | 27 | | • | 12 |
| 107 | iron points | | 3 | 2 | | | | | | | | | |
| 108 | wooden bows | | | | | | | | | | | | 1 |
| 109 | FIREARMS | | | | • | | | | | | | | |
| 110 | complete muskets | | | | | | | | | 5 | | | |
| 111 | musket parts | | | | • | • | | 9 | 8 | 85 | (2 | • | 2 |
| 112 | pistol parts | | | | | | | | 1 | 1 | | | |
| 113 | fire lock plates | | | | | | | 2 | 1 | 19 | (1 | | 1(1 |
| 114 | musket barrels | | | | | | | | 1 | 6 | (4 | (1 | 3 |
| 115 | GUN FLINTS | | | | | 1 | • | 4 | 17 | 26 | | | 7 |
| 116 | LEAD MUSKET BALLS | | 4 | | • | • | | 1 | 21 | 64 | (2 | | |
| 117 | IRON BULLET MOLDS | | | | | | | | | 1(4 | | | (1 |
| 118 | JEW'S HARPS | | | | | | | | | | | (1 | |
| 119 | iron jew's harps | | | | | | | | 1 | | | | |
| 120 | copper/brass jew's harps | | 1 | | | | | 1 | | 1 | | | |
| 121 | MAGNIFYING GLASSES | | | | | | | | | 1 | | | (1 |
| 122 | IRON COMPASSES | | | | | | | | | 1 | | | |
| 123 | COINS | | | | | | | | | | | | |
| 124 | French coins | | | | | | | | 1 | 3(1 | | (1 | |
| 125 | non-French coins | | | | | | | | | | | | (2 |
| 126 | LEAD SEALS | | | | | | | | | (2 | | | |
| 127 | WEIGHTS AND MEASURES | | | | | | | | | 1 | | | |
| 128 | FINGER RINGS | | | | | | | | | | | | |
| 129 | copper/brass bands | | 3 | | | | | 1 | | | | (1 | |
| 130 | iron bands | | | 2 | | | | | | | | | |
| 131 | abstract basal design rings | | | | | | | | | | | | 1 |
| 132 | glass stone inset rings | | | | | | | | | 1 | | | 1 |
| 133 | BRACELETS | | | | | | | | | | | | |
| 134 | iron bracelets | | | | | | | | 7 | 11 | • | | 2 |
| 135 | copper/brass bracelets | | 2 | | • | | | 2 | 1 | 7 | • | | |
| 136 | BUTTONS | | | | | | | | | | | • | |
| 137 | European shell buttons | | 1 | | | | | | | | | | |
| 138 | black glass "Cassock" buttons | | | | (1 | • | | 2 | • | | | (1 | |
| 139 | European metal buttons | | | | | • | | | | | | | 6 |
| 140 | European copper/brass buttons | | | | | | | 2 | 1 | | | | 3 |
| 141 | BUCKELS | | | | | | | 1 | | 3 | | | |
| 142 | BROACHES | | | | | 1 | | | | | | | |
| 143 | CORSET HOOKS | | | | | | | | • | | | | |
| 144 | BELLS | | | | • | • | | | | 2 | | | |
| 145 | copper/brass hawk bells | | | 1 | | | | | 1 | 5 | | | 2 |
| 146 | BEADS | | | | | | | | | | | | |
| 147 | wampum | | 51 | 124 | 21 | • | 21 | | 926 | 1198 | (1000 | 56 | 5 |
| 148 | tubular shell beads | | 63 | | 12 | | | | 169 | 195 | 9 | 1 | |
| 149 | shell crescents | | | | | | | | 20 | 132 | 13 | | |
| 150 | olivella shell beads | | 53 | | | | | | | | | | 42 |
| 151 | shell runtees | | | | | | | | 9 | 42 | | | |
| 152 | shell discodial beads | | 283 | | 9 | • | | | | 34 | | | 2 |
| 153 | shell loon pendants | | | | | | | | 2 | 37 | | (1 | 5 |
| 154 | shell pendants | | 6 | | | • | | | | 4 | | 2 | 21 |
| 155 | red shale /catlinite tubular beads | | | | 1 | | | 4 | | 4 | | | 18 |
| 156 | red shale/catlinite pendants | | | | | | | 11 | | | | | 18 |
| 157 | bead tooth pendants | | 15 | | | | 1 | 1 | | 1 | | | |
| 158 | dog/wolf tooth pendants | | 9 | | | | | | | | | | |
| 159 | turtle shell pendants | | | | | | | | 1 | | | | |
| 160 | elk tooth pendants | | 16 | | | | | | | | | | |
| 161 | round bone beads | | | | | | | | 2 | | | | (4 |
| 162 | bone tube beads | (1 | 22 | | | | | | | | | | 3 |
| 163 | human skull pendants | | 2 | | | | | | | | | | |
| 164 | gorgets | | | | | | 1 | | 1 | | | | 3 |
| 165 | deer phalangy cone (finger) beads | • | | | | | | | | 1 | | | |
| 166 | copper/brass jinglers/bangles | | 21 | 10 | | | | 15 | 8 | 44 | | 1 | 45 |

**Table 1** (cont'd)

| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 57 | stone pendants | | 5 | | | | | | | | | | 2 |
| 58 | stone discoidals | | 1 | | | | | | | | | | |
| 59 | copper/brass tubular beads | | 32 | 1 | | | | | | 6 | 25 | | |
| 70 | copper/brass seed beads | | | | | | | | | 121 | * | * | |
| 71 | copper/brass spiral beads | | 2 | | | | | 7 | | | 6 | | |
| 72 | copper/brass spring beads | | | | | | | | | 33 | 11 | | |
| 73 | copper/brass pendants | | 28 | 2 | | * | | 1 | | 1 | 1 | | 1 |
| 74 | "china beads" | | 4 | | (2 | | | | | | | | |
| 75 | pottery beads | | | | | | | | | | (3 | | |
| 76 | discodial pottery beads | | 8 | | | | | | | | | | |
| 77 | glass beads (see Figure 4) | | 1049 | 36 | 117 | * | 60 | 379 | 2457 | 3108 | 2600 | 188 | 968 |
| 78 | glass seed beads | | 487 | | | | 1 | | | 1758 | | | 41 |
| 79 | "LUCKY STONES" | | 23 | | | | | | | 1 | | | |
| 80 | COMBS | | 18 | | | * | 1 | | | | | | |
| 81 | combs in progress of manufacture | | 9 | | | | | | | | | | |
| 82 | cootie combs | | | | | | | 3 | 1 | 2 | | | |
| 83 | effigy combs | | 2 | | | | | | | | | | 5 |
| 84 | human effigy combs | | 2 | | | | | | 2 | | | | 1 |
| 85 | animal effigy combs | | 5 | | | | | | | 1 | | | 1 |
| 86 | HUMAN EFFIGY FIGURINES | | 16 | 1 | (2 | | | | | | | | |
| 87 | antler effigies | | | | | | | | | | | | 2 |
| 88 | MASKETTES | | 1 | | | | | | | | | | 1 |
| 89 | PIPES | | 4 | | | | 1 | | | | | | 1 |
| 90 | square topped coronoet pottery pipes | 1 | (1 | | | | | | | | | | |
| 91 | effigy pipes | | 7 | 2 | | 1 | * | | | | | | |
| 92 | pipe bowl fragments | | | | | | | 1 | | | | | |
| 93 | animal effigy pipes | | 3 | | 1 | (1 | | 1 | | 2 | | | 1 |
| 94 | human effigy pipes | | 1 | | | | | 2 | | 2 | | | 1 |
| 95 | copper/brass pipe bowl liners | | 3 | | | | | | | | | | |
| 96 | wooden pipe bowl fragments | | | | | | | | 2 | | | | |
| 97 | extended ring coil elbo pipes | | | | | * | | | 1 | 2 | | | 1 |
| 98 | trumpet bowl pipes | | 1 | | | | | | 1 | | | | 2 |
| 99 | stone mic-mac pipes | | 1 | | | | | | | | | | |
| 100 | pewter pipes | | | | | | | 1 | | 4 | (1 | | |
| 101 | copper/brass pipes | | | | | | | | | | | | 1 |
| 102 | white ball clay (kaolin) pipes | | | | (1 | * | | | 1 | 1 | | | 1 |
| 103 | white ball clay (kaolin) pipe stems | | | | * | | | 30 | | | | | |
| 104 | IRON SMOKER'S COMPANION | | | | | | | | | 1 | | | |
| 105 | RATTLES | | | | | | | | | | | | |
| 106 | turtle shell rattles | 2 | 1 | | | | | | 1 | 4 | (1 | | 1 |
| 107 | copper/brass rattles | | | | | | | | | 1 | | | |
| 108 | CHRISTINIZATION "JESUIT" RINGS | | | | (2 | * | | | | (50 | (5 | (2 | |
| 109 | embossed Christinization rings | | | | | | | | 2 | 4 | | | 2 |
| 110 | engraved Christinization rings | | | | | | | | 3 | 10 | | 4 | 2 |
| 111 | CRUCIFIXES | | | | | | | | | | | (1 | |
| 112 | wooden crucifixes w copper/brass corpus | | | | | | | | 1 | 1 | | | |
| 113 | copper/brass crucifixes | | | | | | | | 1 | | | | |
| 114 | MEDALS | | | | | | | | | | | | |
| 115 | circular copper/brass medals | | | | | | | | 1 | | (1 | | |
| 116 | octogatal copper/brass medals | | | | | | | | 1 | | | | |
| 117 | EUROPEAN RELIGIOUS EFFIGIES | | | | | | | | | | | | 1 |
| 118 | COPPER/BRASS HOST CONTAINER | | | | | | | | | | | | 1 |
| 119 | IRON KEYS | | 1 | 1 | | | | | | 3 | | | |
| 120 | QUANTITIES OF PAINT PIGMENT | | | | | | | | | 9 | | | 2 |
| 121 | GAMING STONES | | | | | | | | 5 | | | | 1 |
| 122 | ANTLER /BONE BUTTON DICE | | 18 | | | | | | | | | | |
| 123 | IRON NAILS | | 5 | | | | | 30 | 6 | 9 | | | 19 |
| 124 | COPPER/BRASS NAILS | | | | | | | | | | (1 | | |
| 125 | POTTERY TOOLS | * | 97 | 1 | | | | | | | | | |
| 126 | LADLES | | 2 | | | | | | 7 | (2 | * | | 2 |
| 127 | SPOONS | | | | | | | | | | * | | |
| 128 | wooden spoons | | | | | | | | | | | | 1 |
| 129 | pewter spoons | | 1 | | | | | 4 | | | | | |
| 130 | copper/brass spoons | | | | | | | | 1 | | | | 1 |
| 131 | SPATULAS | | 3 | | | | | | | 1 | | | |
| 132 | IRON POT HOOKS | | | 1 | | | | 1 | | | | | 1 |
| 133 | IRON COOKING SKEWERS | | 1 | 3 | | | | | | | | | |
| 134 | COPPER/BRASS THIMBELLS | | 1 | 1 | | * | | | | 5 | | | |
| 135 | WHETSTONES | | 10 | 1 | | * | | | 2 | 11 | | | |
| 136 | WHIZZERS | | | | | | | 1 | | | | | |
| 137 | WINDOW GLASS | | | | | | | | 1 | 1 | | | |
| 138 | MIRRORS | | | | | | | | | 1 | | | |
| 139 | BONE WHISTLES | | 1 | | | | | | | | | | |
| 140 | FLINT CHIPS | | | | | | | | 5 | | | | |
| 141 | SHELL FRAGMENTS | | | | 2 | | | | | | | | |
| 142 | COPPER/BRASS FRAGMENTS | (1 | 347 | 3 | | | | 35 | 41 | 27 | * | * | |
| 143 | MELTED COPPER/BRASS | | 17 | | | | | | | | | | |
| 144 | IRON FRAGMENTS | | 5 | | | | | 1 | | 4 | 1 | | 1 |
| 145 | SILVER FRAGMENTS | | 1 | | | | | 10 | | | | | |
| 146 | PEWTER FRAGMENTS | | | | | | | | 2 | | | | |
| 147 | LEAD SPLASH | | 30 | | | | | | | | | | |
| 148 | | | | | | | | | | | | | |
| 149 | | | | | | | | | | | | | |

**Table 1** (cont'd)

| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [illegible] | | | | | | | | | | | | | |
| [illegible] | NATURALLY DEFENSIVE SITE LOCATIONS | • | • | • | • | | | | | | | | |
| [illegible] | PITS | 100 | 6 | | | | | | | | | | 1 |
| [illegible] | NUMBER OF CEMETERIES | 1 | 2 or 3 | | 2 | 2 | | | 2 or 3 | 3 | 1 | | 5 |
| [illegible] | BURIALS | 50 | 34 | • | 100 | | | 1 | 40 | 10 | 15 | 1 | 46 |
| [illegible] | no grave offerings in burials | 49 | 28 | | | • | | | 3 | | | | 4 |
| [illegible] | number of burials with grave offerings | 1 | 4 | | • | | | 1 | 23 | 10 | 5 | 1 | 39 |
| [illegible] | flexed burials | 50 | 28 | • | | • | | | 8 | | | | 18 |
| [illegible] | extended burials | | | | | | | | | • | | 1 | 14 |
| [illegible] | coffin burials | | | | | | | | | | | | • |
| [illegible] | single burials | | 29 | | | | | | 11 | | 1 | | 19 |
| [illegible] | multiple burials | | | | | | | | 10 | | 3 | | 14 |
| [illegible] | ossuary/mass burial | | | | | | | | 1 | | | | 2 |
| [illegible] | bundel burials | | | | | | | | 2 | | | | 1 |

KEY

1 - one item noted in a museum collection

(1 - one item noted in the archaeological literature

• - item noted in the archaeological literature, but no quantity given

# CHAPTER 5

## SUMMARY AND CONCLUSIONS

The archaeological culture of the Cayuga Iroquois provides a way of examining acculturation, culture contact and culture change. While the conclusions drawn about the Cayuga specifically and the acculturative process in general were the focus of this study, the other benefit of this work was the creation of a corpus of data on the Cayuga Contact. Given the apparently small amount of material available to work with, the early historic Cayuga were not studied previous to this work. In developing a Cayuga data set from the existing scattered collections, however, a substantial corpus of information was generated which is reproduced in the appendices and is summarized in Figure 5. Thus, as a result of this study, a thorough analysis of all the available Cayuga Contact archaeological information was completed for the first time in the hundred and forty some odd years of Cayuga archaeology.

### General Commentary on the Cayuga Acculturation Process

The archaeological culture provides a way of extrapolating general information about the behavioral practices and specifically about the acculturative process which occured in Cayuga society

during the initial century of contact. This information, presented in summary form, follows below.

The appearance of the first European item at Locke Forte, a copper/brass fragment, shows no indication of special treatment of the object on the basis of its European origin. The recovery of substantial amounts of modified European iron blade tools at Genoa Fort indicates an adaptation of the European iron technology to produce superior indigenous tool types. Glass beads, copper/brass bells, iron keys, and copper/brass ornaments are also recovered in large numbers, and may be accounted for by the value placed by the Cayuga on naturally occurring rare-earth elements. The wide-spread adaptation of human effigy figurines at this early contact site may have resulted from an attempt by the Cayuga to use their existing belief system to counteract the effects of European epidemics.

Sites which post-date Myers Station show that a major transformation had occurred in Cayuga society. Sites no longer occupy defensive positions and food storage pits are no longer used. European iron blade items are no longer subject to modification and are used as received. While ceramic vessel production is discontinued, ceramic pipe production increases. Non-utilitarian European items are found in increasing amounts on sites of this time, as are firearms and their accoutrements.

The material culture from the Rogers Farm, Mead Farm, Lamb, and the Rene Menard Bridge Hilltop sites show that the Cayuga have entered a period of conspicuous consumption of European goods. Not only have they the purchasing power to supply their firearm needs, but also to acquire any European item they desire. While certain traditional tools and apparently nonutilitarian indigenous artifacts continue to be recovered, many of those items found are European artifacts which are functionally equivalent to traditional artifact types, or European artifacts with no known traditional equivalents. An argument can also be made for the Cayuga's use of European subsistence practices (the recovery of an iron sickle) and a monetary system (the frequent recovery of European coins and an apothecary weight). All types of non-functional belief system artifacts continue to be found, including those which have prehistoric equivalents (pipes, effigies, rattles, quartz crystals), those which do not appear to have prehistoric antecedence (maskets), and those which are new (European Roman Catholic metals and crucifixes). A mixture of different types of burial practices appears to support the idea that Cayuga are adapting aspects of different belief systems to produce the desired end result.

Limited information concerning the Young site suggests a

decrease in the conspicuous consumption of apparently nonutilitarian European items. At the same time, however, there appears to be an increase in the types of European domestic items recovered (glass bottles, an iron hoe, a metal bucket). Indigenous European belief system items are recovered, and coffin burials are first noted at this time.

**General Commentary on the Acculturative Process**

The most far reaching aspect of this study is the commentary about the general practice of acculturation. The successful use of the six criteria proposed in the methodology to examine the material culture generated by the Cayuga Iroquois during the initial century of contact allowed us to make note of certain behavior patterns and make general comments on the acculturative process.

One of the first things noted was that not all aspects of change in the society follow the same route or speed. This may be attributed to the fact that different aspects of society respond to the different stresses in a different way. In other words, even if a change of the settlement pattern was perceived by the group as a necessity for survival, there is no indication that changes in food preparation or belief systems would also have to change.

One of the most noticeable changes that occurred in Cayuga

society at the onset of Contact was the adaptation of European iron, and its modification to produce the desired blade types. Technologically, iron blade tools are superior to any comparable stone blade for the simple reason that iron keeps its edge sharper longer. As long as there was a need to modify European iron into specific Iroquois tool types, this practice continued. Yet within a generation or two, the practice was discontinued for reasons unknown, and the Cayuga were content to only utilize the European blade tool types available.

The adaptation of new European artifact types for which there were no indigenous equivalents follows a different route in the acculturative process. While the many new types of European items are not recovered on the earlier sites, there is an exponential increase in both numbers and variety of European items recovered from sites of the second and third quarters of the 17th century. Materials recovered from Cayuga sites of the fourth quarter, however, show a decease in the variety of this type of material, while certain items, such as firearms, are still numerous. While a number of factors may be responsible for this decrease in the variety of new European artifact types for which there were no indigenous equivalents (decline of the pelt market, an increased level of xenophobia following the destruction of the Seneca villages

by Denonville in 1687), it does serve to illustrate the trends of increasing and decreasing popularity of certain items in Cayuga society.

The acculturative process follows a still different path in items of belief. The Cayuga data set indicates that in addition to the continuous usage of traditional belief articles, new beliefs were practiced. In addition to the later popularity of European Roman Catholicism, a possible new indigenous practice was utilized by the Cayuga during the initial contact ("September morn" grave kit item). The archaeological record supports concurrent usage of both indigenous and European religious iconography by the Cayuga at the end of the 17th century. Given the continued loss of life to disease, it is not surprising that aspects of both belief systems were utilized in order to counter-act the epidemics. Through time, the two belief systems became intermixed; eventually producing an Iroquois version of Christianity.

What does all this mean? Simply this. Societies do not change for the sake of change rather, they change to fulfill their primary goal: survival. The Cayuga Iroquois, during the initial century of extended contact, were no different. Given that all societies are inherently unstable entities, they utilize the existing traditional strategies to maintain a balance of social order already selected

through natural selection (the systems theory concept often called "Romer's Rule"; Chartkoff 1991: pers. comm.). Any changes perceived to achieve these goals will be followed, while conversely, any changes which are contrary to the goals of survival will not be followed. The more stressful the situation, the more radical, short-sighted changes would be implemented.

The situation encountered by the Cayuga during the initial century of contact was indeed unstable, and a number of strategies were employed to contend with the situation at hand. The changes noted in Cayuga society were not all implemented immediately throughout all aspects of the society at the same time nor at the same level. Rather, certain shifts in behavioral patterns occurred only in those instances where it was necessary or beneficial to the Cayuga Nation, while others may have occurred for a number of reasons which are not apparent at this time. All that is certain is that the society, an ever changing entity, was not altered immediately. Rather, the Cayuga society, as a whole, developed in response to the numerous changes in the social, economic, political, military, and religious behavioral patterns which came about as a result of extended contact.

In a period of instability and an extremely violent environment, the Cayuga were able to maximize the opportunities

presented by extended contact and minimize the destructive factors brought about by the new circumstances. At a time when most Native American societies witnessed a decrease in their political and economic sovereignty, the Cayuga were able to adapt to such a degree that were able to maintain a position of unchallenged authority until the end of the 18th century - a full two centuries after the initial establishment of what was continuous contact.

**Directions for Further Research**

In the course of this study, many things were touched upon, most of which could be further developed. For example, there may be other existing collections of Cayuga Contact materials scattered throughout the U.S., and it may be possible to incorporate this information into the existing Cayuga data set. Also, while a large majority of Cayuga sites have been vandalized and some have been obliterated, it may be possible to conduct some limited controlled excavations on these sites and generate some new information on the Cayuga during the initial century of contact.

Another aspect of this study which could be expanded upon is the theoretical application of the proposed model and the six criteria used in examining the Cayuga data set. The types of questions explored in the course of this study do not appear to be

temporally or geographically specific and thus the conclusions generated in the course of examining Cayuga society may be applicable to a wide variety of situations world-wide. Presently, since there exist large bodies of archaeological, ethnographic, and historical data which deal directly with effects of extended contact, it may be possible to examine some of this information in order to better understand that which came before and which made us what we are today.

# APPENDICES

## APPENDIX A

### THE LOCKE FORT SITE

The Locke Fort site is one, if not the earliest Cayuga Contact Site. Located on a high elevation and fortified by two steep ravines, the site covers an area of two or three acres half a mile west of the village of Locke. Near the bottom of the hill are "the remains of a semi-fortification" (Follett 1946c: 2), also referred to as "a log stockade, the holes being visible in rows, sometimes double, in the unplowed forest lands" (Skinner 1921: 43). The (post) molds indicate that the posts were eight or ten inches in diameter and set in holes two or three feet deep (Follett 1946c: 2).

Within the confines of the enclosure, "a hundred deep pits, probably corn caches, have been noticed" (Skinner 1921: 43). Clark, in an unpublished manuscript, makes mention of "cavities", three feet across and three feet deep being surrounded by lines of small holes being uncovered (Follett 1946c: 2). Follett interprets these cavities as corn storage pits, still visible in 1935. Upon excavation, they were found to "contain refuse" and "appear all along the north and south sides of the occupied areas" (Follett 1946c: 2).

A cemetery was excavated and "contained fifty to seventy-five flexed skeletons buried in rows" (Follett 1955: 99). The recovered grave goods, a single turtle shell rattle and an earthen pot (both from the same burial), are the only reported grave goods from the site (Follett 1955:99).

The artifacts are found on the slope of the hills and on the flat top, in ash-beds, some of which reach a depth of a foot or more (Skinner 1921: 43).

#### ARTIFACT ASSEMBLAGE

Since no artifacts were available for analysis, those which are described come from previously published works (Skinner 1921, Follett 1946c). Though no evidence for Contact was discovered by Skinner, he mentions that all artifacts were "characteristic of Iroquois sites, even [those] of the Historic period" (Skinner 1921: 43-44).

**Awls**

Several bone awls, between 5 1/4 and 3 1/8 inches long, were reported to have been found in the ash beds (Skinner 1921: 70).

**Beads and Pendants**

One bone bead, made from hollow bird-bone, and several hollowed deer phalanx cones with perforations at the distal ends (jinglers) were found at the Locke Fort Site (Skinner 1921: 70, 75).

**Celts and Hammers**

Skinner mentions the recovery of 2 stone celts and 1 stone celt re-used as hammerstone (1921: 105).

**Containers**

Six Cayuga pottery rim sherd sections are illustrated in Skinner's work (1921: XII, XIV) and include examples of Richmond Incised, Cayuga Horizontal, and Seneca Notched (MacNeish 1952: 84; DeOrio 1980: 77). A complete earthenware vessel was also recovered from a burial (Follett 1955: 99).

**Debitage**

Skinner reported debitage including: the worked base of Virginia deer antler (ash beds) and the rear portion of the inferior maxillary of a black bear, which had been cut in two by a stone knife (1921: 82/83, 71). Also a small piece of copper/brass scrap is mentioned by Follett as being recovered from the site (1946c: 2).

**Flaking tools**

One antler flaking tool is mentioned as being found in the ash bed (Skinner 1921: 82).

**Fishing Gear**

Fishing gear recovered includes: 1 complete fish hook (ash beds), 1 fish hook in progress (ash beds), and 1 notched pebble stone net sinker (Skinner 1921: 72, 104).

**Knives**

A single antler knife handle (ash beds) and "flint leaf-shaped knives" have reportedly been found at the site (Skinner 1921: 83, 43).

**Pipes**

One square-topped "coronet" pottery pipe and many pipe stem fragments have been recovered (Skinner 1921: 94, 43).

**Pottery Tools**

Several tiny celt-shaped pottery engravers have been found among the ash beds (Skinner 1921: 105).

**Projectile Points**

One bone spear point in progress of manufacture (ash beds) and 2 triangular flint points were recovered (Skinner 1921: 82,103).

**Rattles**

The perforated rear portion of the plastron of a box-turtle (rattle) was recovered from refuse, and a complete turtle shell rattle was recovered from burial (Skinner 1921: 72; Follett 195:99).

**Rubbing Stones**

An undetermined number of rubbing stones was found at the Locke Fort Site (Skinner 1921: 43).

## APPENDIX B

### THE GENOA FORT I SITE

The Genoa Fort Site (GFI) is a well known and well excavated site, one and a half miles south of the Village of Genoa, Cayuga County. This site, also known as the Lane Site, is located on the west bank of Salmon Creek, on what has been referred to as "one of the most perfect naturally fortified positions in New York State" (Follett 1951: 81). The site is bound by Salmon Creek on the east and at the entrance to the village, the banks are perpendicular, somewhere between 75 (Stewart 1942: 8) and 200 feet high (Follett 1946d: 5). "From the edge of the creek bank at the entrance to the village site is a descent of 75-100 feet, ending in a hollow. Below, a ravine extends southward and joins another (ravine) through which a small stream flows along the west side of the site. While the west banks are not as steep, they are of sufficient extent to form an approach difficult to surmount by any enemy" (Follett 1946d: 5).

The actual village area of the peninsula is less than two acres, and evidence exists that a large number established a village (GFII) directly across the gorge at the entrance to GFI. Upon the western side of the village area, several storage pits filled with refuse have been found. The refuse from the village area "was thrown over the bank to gather in valley-like depressions on the slopes (Ward 1947b: 3). While it is unclear from the existing literature if a third burial plot existed at the site, at least two cemeteries have been noted.

As of 1934, when the site was visited by James Ward for the first time, little had been excavated and it was barely mentioned by Skinner (1921: 54). Unfortunately, many collectors visited the site, and by 1960, the site resembled a Great War battlefield, complete with zig-zag trenches and water- filled pits (Saunders, pers. comm.). Besides a few short and general articles on the Genoa Fort by Follett, Ward, Austin, and Dodds, no formal documentation exists.

Excavators and collectors who have worked the site include: Robert Tweddle, William Lewis, W.W. Adams, Carl Ambruster, Harry Schoff, Elmer Wilson, Robert Gendreau, Harry Arthur, Mitchel Rea, Elmer Wilson, John Devine, Rene Voorheese, Harold Secor, Doyle,

Titus and Dillingham, among others.

**Village area**

The numerous hearths encountered in the small, two acre fortified area indicate the village was densely populated. A single structure is reported to have been found on the western bank of the ravine by Harry L. Schoff in the late 30's or the early 1940's. Viewed by Follett, "the corner post molds of house on one end that was open were exposed. When the opposite end of the house was explored, it indicated that the house had been twelve feet square. The west side of the house was down the slope four feet and the east, which was the upper side, had been dug down to a level. A trench to carry the drenching rains down the embankment, much as a tent is ditched, was plainly visible" (Follett 1946d: 6). In a later work, Follett states that the "houses discovered are small square cabins" (1951:81).

**Features**

"On the western side (of the village area) there were several corn storage pits filled with refuse. Some of the pits contained quantities of parched corn" (Follett 1946d: 6). "Parched and burned corn, beans, and squash in almost every fire pit" (Austin 1960: 30). The following list of pits from GF1 was constructed from scattered literary references, as well as the RMSC artifact list.

Pit 1 was excavated by Carl Armbruster, and contained a quantity of burnt corn and a broken Iroquois storage vessel. Reconstructed, the earthenware container measured 18 inches tall and 14 inches wide at the rim (Follett 1946d: 6).

Pit 2 was four feet deep and produced a "coronet" pipe near the bottom (Ward 1947b: 3).

Pit 3 was three feet deep and included: "a beautiful comb, a needle, a star bead, pottery and a quantity of corn and beans" (Ward 1947b: 3).

Pit 4 consisted of a fine ash filled pit. Located under a disturbed 18 inch refuse layer, pit 4 was "walled in with round stones for a depth of 1 foot and continued through solid shale for a depth of two feet." Artifacts recovered include several pieces of pottery, very thin and unlike previously recovered GF1 sherds, 4 anvil stones, 2 broken celts, 1 large matadie (metate?) and a quantity of refuse deer and bear bone. No worked bone and no trade goods recovered (Dobbs 1954:128-129).

Pit 5 A cache of Onondaga flint and quartz blanks were recovered from a pit (RMSC artifact list).

Pit #6 A large castellated pottery vessel was recovered from a refuse pit (RMSC artifact list).

**Burials**

Unfortunately, very little interment data from GF1 exists. According to Follett, by 1937, "the burial ground had been completely devastated, with no records being made" (1946d: 7). The few scattered literary references provide only vague generalizations about each particular cemetery. Of the three individual graves listed in the literature, only one is provienced to a particular location (Ward 1947b: 3). Neither are the existing artifact collections examined particularly illuminating. Of the artifacts listed in the RMSC collection as "burial", only four are documented as coming from a particular burial. The lack of corresponding field notes for the above mentioned artifacts does not allow for proper interpretation of these items.

Cemetery 1 was first discovered by Harrison Follett on a sandy knoll near the edge of the bank of Big Salmon Creek in 1935 when a single burial was exposed by erosion. Following the initial discovery, other burials were found "in the sandy loam soil on the low ground at the foot of the incline on the approach to the village area. Most graves were between two and three feet deep and articles recovered consisted mainly of clay pipes (Follett 1946d: 5).

To the northwest, in ferrous red clay, twenty-eight burials were discovered in 1937 (Follett 1955: 100). All burials from the

second burial plot (Cemetery 2) were "flexed and contained no artifacts, being typical prehistoric (pre-Contact) Iroquoian. These burials appear to be oldest part of the burial site" (Follett 1946d: 6).

In 1940, Titus and Dillingham also excavated a unknown number of graves at GF1. "Charcoal was first encountered 10 inches from surface, then 2 to 3 feet of sterile soil were excavated before burials were encountered. Graves in red clay, sometimes (they were) lined on the bottom with white sand and in others, ash, potsherds and bark" were recovered (Follett:1953b).

From the available burial information, the RMSC GF1 artifact list and Cayuga Contact literature, the few described interments are not provenienced to any particular cemetery. While it is most probable that these materials are from Cemetery 1 (DeOrio lists only 2 known cemeteries at GF1), they may come from another location, such as burial W-1. Burial W-1 was discovered within the village area proper.

W-1 was excavated by James Ward under a fire pit in the village part of the site. Large boulders had been brought in, placed on the body, and then a thin layer of earth covered the stone. The grave discovered was probably a winter burial. No artifacts were recovered (Ward 1947b: 4).

A-1 was discovered by Carl Ambruster and produced a "double handful of cracked chert pebbles and a flaking tool (Ward 1947b: 3).

S-1 was excavated by Harry Schoff and included a projectile point embedded in "one of the hip bones". The wound had not been fatal, as the point had been almost totally hidden from view by secondary bone deposition (Ward 1947b: 3).

V-1 One Red Round, 1 French Horizon Blue, 2 pieces of copper/brass, 1 hawk bell, 3 perforated copper/brass pendants, 1 elk tooth pendant, 1 copper/brass projectile point, and 1 flattened lead musket ball are identified as coming from a single burial; Rene Voorheese collection, RMSC.

W-1 1 castellated pot and 1 string of 100 mixed glass beads, including: 11 Black Rounds, 11 Union Blue Rounds with Multiple White Stripes,1 Union Blue Round with 4 White Stripes, 74 French Horizon Blue Rounds, 3 French Horizon Blue Rounds with 4 White Stripes, 1 French Horizon Blue with 4 Red Stripes, and 4 Red Rounds, and are identified as being from Burial 1; Elmer Wilson collection, RMSC .

W-2 1 rim notched rim vessel and a string of: 1 Black Round with 4 Red Stripes, 303 French Horizon Blue Rounds, 1 French Horizon Blue Round with 4 White Stripes, 1 Clear White Round, and 9 Blue Chevron Rounds are provienced to Burial 2; from Elmer Wilson collection, RMSC collection.

ARTIFACTS ASSEMBLAGE

The majority of artifacts examined comes from the RMSC collection (site number 205). The dozen or so artifacts examined from the CMH are thus noted in the Artifact Assemblage. Artifacts described in the existing Cayuga Contact literature are also so listed.

**Abraiding stones**

A single abrading stone was found in refuse.

**Armour**

One section of iron mail has been reported in the RMSC artifact list. Unfortunately, this item (catalog number 7778/205) from refuse can not be located.

**Awls and Needles**

The site yielded: 4 bone splinter awls, 1 larger bone splinter awl, 2 bone ulna awls, 1 turkey leg bone awl, 1 raccoon penis bone awl, 125 bone awls and 43 iron awl (re-used European iron).

Needles recovered include: 44 deer rib weaving needles, 12 bone weaving needles (CMH), 3 bone needle points, 1 large bone needle, 10 bone needle fragments, and 2 copper/brass weaving needles.

**Axes, Celts and Chisels**

Cutting tools recovered from the site include stone and iron celts, bone and iron chisels, and a complete iron axe. All objects are provenienced to refuse.

Celts recovered include: 2 miniature shale celts, a fragment of a miniature bar celt, 7 stone celt bits, 5 complete stone celts, and 2 iron celts (remade from European iron, probably axes).

Chisels recovered include: 1 bone chisel, 15 iron chisels made from European iron objects, 2 iron chisels made from European axes, 1 iron chisel made from a knife, and 2 iron chisels made from European rapier blades.

Also recovered were 28 iron trade axe fragments and 1 complete iron trade axe with a manufacturing mark. A second iron axe head was recovered with the bitted end removed. The recovery of other iron axes is reported in the Cayuga Contact literature (Follett 1946d; DeOrio 1978).

**Beads, Pendants and Gorgets**

Beads and pendants recovered were made of a number of materials, including: shell, bone, terra cotta, stone, copper/brass and glass.

All shell objects were recovered from refuse and include: 51 white wampum, 83 tubular shell beads, 53 olivella shell beads, 253 shell discoidal beads, and 6 shell pendants.

Beads and pendants made from bone from refuse include: 5 bear canine pendants, 9 bear canine tooth pendants,1 partially drilled bear canine tooth, 6 perforated dog/wolf canine pendants, 1 perforated dog/wolf tooth, 2 partially drilled dog/wolf's tooth pendants, 1 perforated elk tooth, 3 perforated elk incisor tooth pendants, 11 perforated elk canine pendants, 22 tubular bone beads, 1 perforated bone pendant, and 2 human skull pendants. A single elk tooth pendant was recovered from a burial.

Objects made from stone were recovered from refuse and include: 1 shale pendant, 4 slate pendants, and 1 stone discoidal.

Copper/brass beads recovered include: 2 long tubular brass beads, 30 tubular copper/brass beads (refuse), and 2 spiral brass beads (refuse). The copper/brass pendants recovered include 2 curved round brass pendants(refuse), 22 copper/brass flat disk

pendants (refuse), 3 small copper/brass disk pendants (burial), and 1 large brass pendant (burial). The 21 copper/brass bangles and the single flattened brass spiral ornament recovered came from refuse and complete the copper/brass bead and pendant artifact description.

Beads and pendants made from terra cotta were all recovered from refuse and include: 4 re-worked pottery beads from pipe stems, 1 unperforated discoidal pottery bead, and 7 perforated discoidal pottery beads.

Glass beads recovered from the surface and refuse include different color varieties of the basic shapes of round glass beads, tubular glass beads, chevron glass beads, and seed glass beads.

Round glass beads recovered not from burials include:18 Black Rounds, 4 Black Rounds with Red in White Stripes, 1 Black Round with Red and White Stripes, 1 Black Round with White Stripes, 397 French Horizon Blue Rounds, 41 French Horizon Blue Rounds with 4 White Strips, 2 French Horizon Blue Rounds with 4 Red Strips, 2 Union Blue Rounds, 5 Union Blue Rounds with 4 White Strips, 35 Red Rounds, 13 Red Rounds with White Stripes, 6 Red Rounds with Blue in White Strips, 1 White Round with Red and Green Stripes, 2 White Rounds with Red and Blue Stripes, 58 White Rounds, 1 Clear White Round, 1 Clear Round with White Stripes and 2 Green Clear Rounds.

Tubular glass beads recovered from the surface and refuse include: 2 Union Blue Tubes, 2 Blue Tubes with White Stripes, 19 Red Tubes, 1 Red Tube with Blue in White Stripe, 1 Twisted Red Tube and 2 White Tubes.

Chevron beads recovered not from burials include:125 Blue Round Chevrons, 2 Green Chevrons, 2 White Chevrons with Red and Green Stripes, 13 White Chevrons with Blue and Red Stripes, 1 Squared Blue Chevron (Kidd type IVk5), 1 Union Blue Chevron with Yellow Stripes, and 2 Blue Chevron Tubes (Kidd type IIIk2)

Glass seed beads recovered from refuse and surface at the site include: 2 Black Glass Seeds, 276 Union Blue Seeds, 69 French Horizon Blue Seeds, 71 Red Seeds, and 77 White Seeds.

Glass beads recovered from burials include round glass beads (Rounds), tubular glass beads (Tubes), chevron glass beads (Chevrons) and seed glass beads (Seeds). Types recovered include:11 Black Rounds, 1 Black Round with 4 Red Strips, 11 Union

Blue Rounds with Multiple White Strips, 1 Union Blue Round with 4 white Stripes, 425 French Horizon Blue Round, 4 French Horizon Blue Round with 4 White Stripes, 1 French Horizon Blue Round with 4 Red Stripes, 1 Clear White Round, 4 Red Rounds, and 1 Red Round with White Stripes. Tubes recovered from burials include: 2 Union Blue Tubes. Chevrons recovered from burials consist of: 9 Blue Chevron Rounds. Glass Seeds recovered from burials include: 25 Black Seeds, 10 Union Blue Seeds, 4 French Horizon Blue Seeds, 2 Green Seeds, 1 Red Seed, and 26 White seeds.

A single stone gorget in progress of manufacture was also recovered from the site.

**Beaming tools**

Two bone beaming tools were recovered from refuse.

**Bells**

A single copper/brass hawk bell was recovered from a burial.

**Blade weapons**

An iron European rapier point and 2 iron European rapier blade sections were recovered from the refuse of the site. The rapier point displays cut marks, indicating intentional cutting for reuse, while the two rapier blade sections were remodeled to function as chisels.

**Unworked fauna**

Faunal remains encountered in examined collections include: bear, birds(including eagle), deer, elk, dog/wolf, beaver, porcupine, raccoon and pig. "Bones of elk, bear, deer, and beaver are found in abundance" (Ward 1947b: 3).

Unworked faunal remains examined in the RMSC include the following. Bear faunal remains include: 18 complete canines, 8 canine fragments, 4 molars, 2 incisors and 3 claw cores. All examples recovered are from refuse. Bird remains encountered are from refuse and include: 1 eagle claw core, and 1 unidentified bird claw core. Deer remains are from refuse and include: 2 toe bones and 25 phalanges cones. Unworked elk remains include: 1 molar (refuse), and 3 canines (1 from burial and 2 from refuse). A total of 33

unworked dog/wolf canines were recovered from refuse. Beaver remains are from refuse and include: 27 incisors and a complete right mandible (with dentition). All porcupine fauna recovered is refuse and includes: 9 incisors and a complete porcupine mandible. A single raccoon mandible section, 1 pig tusk and 23 unidentified teeth were recovered from refuse.

From the Cayuga Contact literature, it is noted that "Many beaver jaws, some with incisors intact, have been recovered from the site" (Ward 1959: 21).

**Bracelets**

The 2 copper/brass bracelet fragments recovered from the refuse are of native manufacture from re-used European copper/brass.

**Buttons**

A single European colonial shell button was found in refuse.

**Combs, Figurines and Maskettes**

Materials recovered from refuse include: 9 antler comb blanks, 18 antler comb fragments, 2 complete effigy antler combs, 1 standing human effigy antler comb, 4 bird effigy antler comb fragments, 1 complete antler "September morn" figurine comb (CMH), 12 antler "September morn" figurines (8 from RMSC, 4 from CMH), 3 antler "September morn" figurines in process of manufacture, 1 mid-section of a limestone figurine, 1 shell effigy of animal head, and 1 perforated antler maskettes. Ward mentions that "several figurines have been found, mostly in graves of 6 year old children" (1959: 21).

The Cayuga Contact literature also mentions that an antler wild turkey effigy was recovered at the site (Ward 1947b: 3).

**Containers**

A number of complete pottery vessels were recovered from the site, including: 1 castellated pottery vessel (burial), 1 large castellated pottery vessel (refuse pit), 2 notched rim pottery vessels (burials), and 1 notched and incised pottery vessel (burial). Fragments of containers were also recovered from refuse and include: 72 decorated rim sherds (including examples of barbed,

frilled, Ithaca Linear, Richmond Incised and Cayuga Horizontal MacNeish 1952, DeOrio 1980), 7 human effigy pottery rim sherds, 16 decorated body shard, 1 baked pottery waster, 2 brass kettle patches, 16 identifiable copper/brass kettle section, and 13 iron kettle bail fragments.

The Cayuga Contact literature makes mention of a large pottery vessel (18 inches tall and 14 inches wide at rim) that was excavated by Carl Armbruster and later sold at auction to an out of state dealer (Follett 1946d: 6). Also mentioned in the literature are rim sherds which depict human effigies (Ward 1959: 23; Austin 1960: 26).

Although the recovery of kettle copper/brass scrap suggests that kettles reached the site, no complete vessels exist in collections examined. While Follett states that a few kettles were recovered from GFI (1946d: 6), more recent accounts merely suggest that such vessels probably reached the site (DeOrio 1978).

Mentioned also in the literature was the recovery of an intact hand-blown bottle, the "kind that usually occur on later sites" (Ward 1947b: 3).

**Debitage**

Debitage recovered from refuse at the site includes bone, stone, copper/brass, lead, iron and silver fragments.

Recovered stone and bone debitage include: 4 pieces of chipped stone, 2 polished stone fragments, 1 bone tool fragment, 1 worked large bone section, 3 pieces of cut antler, 5 large pieces of worked antler, 40 pieces of cut and worked deer antler tine, 50 pieces of worked and cut bone and antler fragments, 1 bear canine tooth with knife cuts, 6 pieces of worked bear canine teeth tips, 1 perforated deer heel bone, and 1 worked small mammal tooth. Bone shavings are also reported to have been found at GFI (Ward 1947b: 3). Follett reports the recovery of worked deer phalanges at the site (1946d: 6).

Worked metal at the site includes: 347 pieces of cut and worked scrap copper/brass, 13 pieces of brass wire, 17 sections of melted brass, 30 pieces of lead drippings or splash, 1 large iron staple, 4 iron fragments, 1 broken European iron object (blade section remaining) and 1 small rolled piece of silver.

**Dice**

Button dice recovered from refuse include: 9 antler "button" dice, 1 stone die, refuse, 2 clay dice, and 6 pottery dice.

**Drills**

One flint drill and 1 iron drill were recovered from refuse.

**Fishing Gear**

Different types of fishing gear was recovered from the site including: 3 bone fish hooks, 2 fish hook blanks, 2 iron fish hooks, 1 stone net sinker, 1 unilateral barbed bone harpoon, 1 bilateral barbed bone harpoon, 1 single barbed harpoon, 2 bone harpoon points, 1 base of large bone harpoon, 4 small bone bilateral harpoons, 1 bone harpoon section, 3 bone harpoons, and 1 iron harpoon.

Follett also reports that single and double barbed harpoons, net sinkers, bone fishhooks, and 3 antler harpoons were recovered (1946d: 6).

**Flaking Tools**

Recovered from refuse were 59 antler flaking tools.

**Food**

Subsistence remains recovered include: a quantity of charred beans (RMSC), a quantity of carbonized corn and beads (CMH), and carbonized pig nuts (RMSC). "Parched and burned corn, beans, and squash are found in almost every fire pit" (Austin 1960: 30).

**Gouges and Engravers**

One iron gouge was recovered from refuse. Engravers recovered all come from refuse and include: 2 beaver tooth engravers, and 1 porcupine tooth engraver.

**Hammerstones, Mullers, Pestles, Metates and Anvilstones**

Hammerstones recovered include: 1 rectangular shaped stone hammer, 3 round pebble hammer stones, and 1 discoidal hammer stone. Three stone mullers were recovered from refuse.

Stone pestles have been reported in the Cayuga Contact literature as being found at the site (Follett 1946d: 6). Also

mentioned are a matadie (metate?) and 4 anvil stones (Dobbs 1954: 128).

**Jew's Harps**

One copper/brass jew's harp fragment was recovered from refuse.

**Lucky Stones**

A total of 23 concretion "lucky stones" were recovered from the site.

**Keys**

One iron key was recovered from refuse.

**Knifes and Scrapers**

The wide variety of knives recovered from the refuse of GFI suggest that different blades may have fulfilled different purposes. Knives identified are predominantly iron, although other materials are also used. Among the iron knives recovered, the standardization of iron knives by the Cayuga occurred to such an extent that American-produced iron knives can be classified with European-made knives. The major types recovered include: long, pointed blades; long, sharp blades; short, pointed blades; short, blunted blades; short circular blades, and scalpels. Others types also occur in single numbers.

Iron knives with long, pointed blades recovered include: 1 American made flat-stock knife with a straight blade; 6 European-made rat-tail knives with straight blades; 1 European-made flat-stock knife with a straight blade, and 1 European-made flat-stock knife with a curved blade.

Long, blunted knife blades recovered include: 1 iron European-made flat-stock knife with a straight blade.

Iron knives with short, pointed blades recovered all have straight blades and include: 2 European-made rat-tail knives, and 1 American-made flat-stock knife with a straight blade.

All short, blunted knives recovered have straight blades and include: 1 American-made iron rat-tail knife, 4 European-made iron rat-tail knives, 1 European-made iron flat-stock knife, 2 American-

made iron flat-stock knives, and 1 American-made copper/brass knife.

Knives with short, circular blades recovered are made of iron, have straight blades and include: 4 European-made rat-tail knives and 1 American-made flat-stock knife.

Scalpels recovered include 1 European-made iron scalpel blade and 1 American-made copper/brass scalpel blade.

Other knives recovered include:1 complete European-made iron folding knife blade, 1 American-made copper/brass scraper/knife with short, straight and blunted edge, and 1 "crude" American-made sandstone knife. Three iron knife blade fragments, 3 iron flat-stock knife handle fragments and 5 iron knife/scissor tip fragments were also recovered from the site. One iron flat-stock knife blade re-made into a saw was also recovered from the site.

Scrapers recovered include: 6 flint scrapers with serrated edges, 7 flint scrapers, and 6 iron scrapers re-made from European objects.

**Minerals**

Two iron pyrite nodules and 1 graphite pigment lump were recovered from the refuse of the site.

**Nails**

Five iron nails were recovered from refuse.

**Organics**

Two sections of carbonized bark were recovered.

**Pipes**

Pipes recovered include: 1 stone "Micmac" type pipe, 1 stone bear's head effigy pipe bowl, 1 restored bird effigy pottery pipe, 1 bird effigy head from pipe bowl, 1 human face effigy pipe, 1 complete trumpet bowl pottery pipe, 1 reconstructed native pipe bowl, 1 decorated Native pottery pipe bowl,1 broken pottery pipe bowl remade to take wood stem, 1 squared bowl pipe fragment, 7 pottery pipe bowl sections, and 3 copper/brass pipe bowl liners. A "coronet" pipe is mentioned by Ward as being recovered from a pit at GFI (1947b: 3).

**Pottery tools**

Tools for making pottery recovered include: 3 shale pottery marking tools, 1 antler pottery marker, 1 bone pottery marking fragment, and 92 unfinished gray shale pottery engraving tools. All objects recovered are refuse.

**Projectile weapons**

A large variety of projectile weapons were recovered from the refuse of the site.

Projectile points recovered were made bone, slate, flint, quarts, jasper, copper/brass and iron. Objects recovered include from refuse: 21 conical antler bone points, 1 slate projectile point, 557 complete Madison and Levanna flint triangular points, 300 broken and unfinished flint triangular points, 1 Madison flint point, 2 Brewerton notched point, 4 milky quartz triangular points, 3 jasper triangular points, 160 brass projectile points, 2 iron projectile points re-made from knife tips, and 1 iron projectile point with long tong. A single copper/brass projectile point is noted as coming from a burial.

In the RMSC artifact collection, 1 iron cooking spear and a base of bone spear point are provienced as coming from the site. The existing Cayuga Contact literature makes mentions of an iron spear (with lead or pewter ferrule) being recovered from GFI (Ward 1954:116).

While the existing Cayuga Contact literature states (Follett 1946d, DeOrio 1978) that no firearms were recovered at the site, a few firearm accouterments and a single possible firearm part have been recovered. The recovery of these few items, 2 unfired musket balls (refuse), 1 fired lead musket ball (burial), 1 lead disc made from musket ball (refuse), and 1 iron touch hole primer (refuse), however, fails to substantiate firearm age by the Cayuga at GFI. No complete firelocks or firearm fragments have ever been recovered from the site (DeOrio 1990, pers. comm.).

**Rattles**

A complete, unprovenienced turtle shell rattle with rattle stones was recovered from the site.

**Raw materials**

A cache of 300 Onondaga flint and quartz blanks (Pit #5) were examined in the RMSC collection. Antler and bone material blocked out for artifact production has also been recovered from the site (Ward 1947b: 3).

**Rings**

Three copper/brass finger rings recovered from refuse were of native manufacture.

**Saws**

The two saws recovered were from refuse and include one made from scrap and one re-worked iron knife. The iron saw that was re-made from an iron flat-stock knife had a 2 inch long blade with 13 teeth. The iron saw made from scrap measured 2 inches long and had 4 teeth.

**Scissors**

One complete set of iron scissors and 5 iron scissor fragments were recovered from the refuse of the site.

**Spoons and Ladles**

Spoons and ladles recovered include: 1 antler ladle 6 1/2 inches long, 1 antler effigy ladle, 3 bone spatulas, 1 long elk antler handle, and 1 pewter spoon handle.

**Thimbles**

One copper/brass thimble top was recovered from refuse.

**Whetstones**

Recovered from refuse were 10 whetstones.

**Whistles**

One bone whistle was recovered from refuse.

## APPENDIX C

### THE GENOA FORT II SITE

Genoa Fort II (GFII) is located one and a half miles south of the village of Genoa, Cayuga County, on the east side of Salmon Creek, directly opposite GFI.

GFII is directly related to the better known GFI. Not only are the artifact assemblages virtually identical, but the limitations imposed by the small two acre GFI severely limited its population carrying capacity. GFII were "the suburbs" of GFI. Not only is GFII located on the gateway to GFI, but it also occupies the nearest available land which can support structures.

Little has been written about this site in the Cayuga Contact literature. The earliest record of the site exists in an unpublished letter, c. 1875, of Dr. Lewis to Clark (Follett 1946d: 3). "Burying place near the forks of Big Salmon and Little Salmon Creek, one mile south of the east side of the Creek. When I visited the site, it was densely covered with forests, but graves could be distinctly seen and traced over a large tract. I firmly believe nearly or quite 40 acres nearly in the center, and on the immediate bank of the ravine was a large knoll or perhaps a mound that was filled with graves. All the graves I have opened on this ground were in a sitting (flexed) position" (Follett 1946d: 3).

Follett briefly mentions this site as an independent entity of GFI. "Articles found here (GFII) are about the same period as (those which) occur on the site of Group One, (GFI is dated c. 1600) (Follett 1946d: 3).

No known structures, or features are known as being from GFII.

ARTIFACT ASSEMBLAGE

All artifacts examined come from the Elmer Wilson and Rene Voorheese collections, presently part of the RMSC collections (site number 277). All objects examined were provenienced as refuse.

**Awls and Drills**

Three copper/brass awls, 2 iron awls and 1 broken iron drill bit were recovered from the site.

**Axes**

A single iron axe fragment, remade into a chisel, was recovered.

**Beads and Pendants**

A variety of wampum, bangles, pendants, and glass beads was recovered. Shell and copper/brass beads and pendants recovered including; 124 pieces of broken white wampum, 10 copper/brass bangles, 1 tubular copper/brass bead, and 2 copper/brass pendants.

Glass beads recovered include: 14 union blue rounds,14 French Horizon blue rounds,1 French Horizon blue round with white stripes, 3 red round with white stripes, 4 clear white round, and 1 broken red tubular bead.

**Blades**

An iron rapier blade section, remodeled to function as a chisel, was found at the site.

**Bells**

One copper/brass hawk bell was recovered.

**Chisels and Celts**

Recovered from the site were: 1 miniature iron celt, 1 iron chisel made from an iron sword blade, and 1 iron chisel made from an trade axe head.

**Containers**

Recovered from the site were 4 decorated barbed rim sherds and 1 shale pottery engraver.

**Debitage**

Two fragments of worked bone and 3 pieces of reworked copper/brass were recovered from the site.

**Figurines**

One "September morn" antler figurine was recovered at GFII.

**Keys**

Recovered from the site was 1 iron skeleton key.

**Knives and Scrapers**

The 1 iron flat-stock knife with long, pointed blade recovered from the site had a curved blade and 5 saw teeth, signifying re-use as a saw, was recovered. One flint scraper was also recovered from the site.

**Pipes**

All pipes recovered are of Native manufacture and include: 2 undecorated pottery pipe bowls, 1 undecorated pottery pipe stem fragment, and 1 pottery bird head effigy pipe fragment.

**Projectile weapons**

Projectile points recovered include: 15 flint triangular points, 29 copper/brass triangular points made from scrap, 1 copper/brass triangular point with tang, 1 iron triangular point made from tip of knife blade, and 1 European-made iron triangular point.

**Rings**

Two European-made iron ring bands were recovered.

**Saws**

The 3 iron saws recovered included: 1 short iron saw with 7 teeth, made from scrap iron; 1 short iron saw with 6 teeth, made from scrap (possibly an iron knife tip); and 1 long iron saw with 5 teeth, made from an iron flat-stock knife, were recovered from the site.

**Skewers and pot hooks**

Two iron cooking skewers and 1 iron pot hook were recovered.

**Thimbles**

One copper/brass thimble was recovered from the site.

**Whetstones**

Recovered from the site was 1 whetstone.

## APPENDIX D

### THE MYERS STATION SITE

The Myers Station Site, a multi-occupational site, is located on Lot 97, 1 mile north of Genoa, Venice Township, Cayuga County. The site, some 10 to 12 acres, is situated on the edge of a steep ravine, below which is a stream running into an eastern branch of Salmon Creek (Parker 1922: 506). Burials, refuse, a village area, as well as a smaller and later Cayuga Contact occupation have all been subject to excavation.

Bulldozing for gravel has all but obliterated the site, as earth has been pushed up and over the cliff. At present, bone fragments and flint chips can be seen in the disturbed area. Sections of the site may still exist untouched in peripheral areas (RMSC site files).

#### Village Area

The village occupied the level ground between the natural defenses of a steep ravine to the north and an embankment on the west and south side (Follett 1946d: 5). A single structure, a large house near the center of the village, was excavated by Sands Titus, Maynard Cramer, Carl Ambruster, and James Ward. Among the things recovered were broken pieces of china, some white and some blue and white" (Ward 1959: 19)

A heavy deposit of refuse was located upon the northern ravine, while a second refuse deposit filled a natural depression near the southeastern corner of the site (Follett 1946d: 5).

#### Burials

"During recent years, excavations have been made of the burial grounds. About 100 burials were unearthed on small knolls, south-east of the village" (Follett 1946d: 5). DeOrio makes mention of two known cemeteries in existence at the site (1978).

Grave goods recovered from burials include: "some thirty pipes (Follett 1946d: 5),"one iron kettle bail with copper/brass ears attached" (Ward 1949: 89), "Native pots" (DeOrio 1978), One "September morn" figurine (Follett 1950: 65), and one copper/brass

kettle ear (CMH artifact list).

ARTIFACT ASSEMBLAGE

The majority of artifacts available for analysis come from the much damaged CMH collection; three are from Maynard Cramer's collection (Heye). Artifacts descriptions taken from the Cayuga Contact literature are thus listed.

**Awls and Needles**

One copper/brass awl, 1 iron awl, and 1 copper/brass needle are illustrated as coming from the site. (Ward 1959: 22,23,24)

**Axes, Celts, and Chisels**

Iron axes have been found in large quantities at the site (DeOrio 1978).

**Beads and Pendants**

A variety of wampum, shell discodials, shell beads, red catlinite tubular beads, "china ware" pendants, and glass beads were recovered, including: 21 white wampum, 12 drilled shell beads, 9 shell discodials, and 1 red catlinite tubular bead. Round glass beads (Rounds) recovered include:1 Black Round with Multiple White Stripes (type IIb13), 58 French Horizon Blue Rounds, 9 French Horizon Blue Rounds with White Stripes, 1 French Horizon Blue Rounds with Red Stripes, 13 Red Rounds, 6 Red Rounds with White and Blue Stripes, 2 Red Rounds with White Stripes, and 2 Clear Rounds. Tubular glass beads (Tubes) recovered include:17 Union Blue Tubes,1 French Horizon Blue Tubes, 3 Red Tubes, and 4 Red Tubes with White and Blue Stripes. Chevron glass beads (Chevrons) recovered include:1 Blue Chevron (type IVk4) and 1 White Chevron with Red and Blue Stripes (type IVnn4)

The Cayuga Contact literature states that "many tubular beads (were found at the site), with (Union) blue (Tubes) the predominant color" (Ward 1948: 43, DeOrio 1978). "Two china ware pieces were found that had been drilled and worked into pendants" are also reported in the literature (Ward 1959:19).

**Bells**

"Turkey bells are mentioned in the literature as being recovered from the site" (Ward 1959: 19).

**Bracelets**

Rolled copper/brass bracelets have frequently been found at the site (Ward 1959: 19).

**Buttons**

One European black (Cassock?) button is illustrated as coming from the site (Ward 1959: 23).

**Combs, Figurines, and Maskettes**

One "September morn" figurine "with a braid" was recovered from a burial (Follett 1950: 65) and 1 figurine was recovered at the edge of the Myers Station site (Ward 1950: 36).

**Containers**

One copper/brass kettle ear (cemetery), 2 undecorated high fired body sherds, and 2 cord impressed body sherds were recovered from the site (CMH collection). A ceramic vessel and a "jar and potsherd" are provienced to the site (MAI collection).

An "iron kettle bail with copper/brass ears attached" (Ward 1949: 89) and "pieces of china ware, some white and some white and blue" (Ward 1959: 19) were also recovered. DeOrio mentions that small quantities of copper/brass kettles have been found at Myers Station (1978).

**Debitage**

One shell fragment (CMH collection), as well as other "large pieces of ocean shell" (Ward 1959: 19) have been recovered from the site.

**Drills**

One flint drill was recovered from the site (CMH collection).

**Fauna, unworked**

Two small animal teeth, 1 small mandible fragment, and 1

dog/wolf canine are provenienced as coming from Myers Station (CMH).

**Flaking tools**

One bone flaking tool is illustrated from the site (Ward 1959: 24).

**Finger rings**

An L- heart and an IHS type have been recorded as coming from the site (DeOrio 1978).

**Fishing gear**

Copper fish hooks have been reported at the site (Ward 1959: 19).

**Hammerstones, Metates and Mullers**

One grindingstone was recovered from the site (MAI collection). "Hammerstones and mullers have also been found in small quantities at the site" (DeOrio 1978).

**Knives and Scrapers**

One flint knife fragment and 1 lithic scraper, made from broken point, were recovered from the site (CMH collection). "Iron knives have been recorded to be found in large quantities" (DeOrio 1978).

**Pipes**

One American-made pipe stem and 1 decorated coil design Cayuga pipe bowl fragment are found in the CMH collection. Many different and unique Cayuga pipe types have been recovered from the cemetery; including one "monkey" effigy pipe, possibly an effigy of a European (Follett 1946d: 5). One American-made copy of a European ball clay (kaolin) pipe (Ward 1959: 19), as well as other European-made ball clay (kaolin) pipes have been reported in the Cayuga Contact literature (DeOrio 1978).

**Projectile weapons**

Eight copper/brass projectile points (1 in Ward 1949, 7 in

Ward 1959: 22,23) and 11 flint projectile points (1 in Ward 1949, 7 in Ward 1959: 22,23 and 3 from the CMH collection) have been recovered from the site.

One circular Native gun flint (CMH collection) and small quantities of firearms, firearm parts, gun flints, and musket balls have been recovered from the site (Follett 1951: 82, DeOrio 1978).

## APPENDIX E

### THE CULLEY'S SITE

The Culley's site, a multi-occupational site, is in Venice Township, Cayuga County. Also known as the Tile Kiln and "the Ten-Year Site", it is located on an unfortified fortified position on the west side of Salmon Creek. To date, a large mid-17th century and a smaller late 17th/early 18th century occupation have been identified (DeOrio 1990: pers. comm.).

**Village Area**

The site is not protected by any natural defense. "When fields were cultivated, stones burned by fire, grinding trees [sic], and many indications of occupation. No palisades, but huts huddled together" (Clark notes, in Follett 1946d: 6).

"No evidence of storage pits has been reported. That all further village sites also bear no evidence of storage pits appears to indicate the abandonment of their use" (Follett 1946d: 6).

**Burials**

"Burial grounds extended for miles along the creek, not connected, but continuous. The graves were circular, sunken holes, three to four feet across, and two or three feet deep. Usually found the skeletons in a sitting (flexed) position, bones very much decayed. Never saw any except these circular graves. Graves irregular, half a dozen to a rod square. Nearly always found gun barrels, beads, pipes, iron kettles, stone used for dressing skins, dusil-shaped [sic] pipes in imitation of human faces, and hatchets. " (Clark notes, in Follett 1946d: 6). Also, "a rare clay pot with effigies was found intact inside a metal kettle in the 1880s in a burial" (DeOrio 1978).

ARTIFACT ASSEMBLAGE

Information about this multi-occupational site is scarce. Existing artifact collections, as well as published materials are lacking, and the only descriptions of the site are in Follett (1946d:

6) and DeOrio (1978). The problems of identified poorly provenienced materials to the site are further complicated by the fact that more than one site is identified in the area (Follett identifies three sites south of Venice; 1951). All information below, accept for one pers. comm., is taken from DeOrio's artifact lists (1978).

**Awls**

Metal awls are more frequent than bone awls at the site.

**Axes and Celts**

Iron axes and (stone?) celts have been recovered from the site.

**Beads and Pendants**

Beads and Pendants recovered include: metal pendants, shell discodials, shell wampum, shell pendants, Chevrons, French Horizon Blue Rounds, French Horizon Blue Rounds with White Stripes, Union Blue Tubes, Red Tubes, Red Rounds, and Green and Blue Translucents.

**Bells**

Metal bells have been reported as being recovered.

**Buttons**

Both metal and glass buttons have been recovered from the site.

**Combs**

Bone combs have been reported as being found in small numbers.

**Containers**

Although copper/brass kettles are the predominant containers in use, one complete effigy pottery vessel was recovered from burial.

**Flakers**

There is great reduction in the presences of bone flakers at the site.

**Finger rings**

Jesuit Christianization rings have been recovered from the site, including 30 from a burial in the 1940s (DeOrio 1987: pers. comm.)

**Hammerstones, Honing stones, and Mullers**

Hammerstones, honing stones, and mullers have been noted as coming from the site.

**Knives and Scrapers**

Iron knives, including some European-made rat-tails with decorated bone handles, have been recovered.

**Pipes**

Pipes recovered as being found at the site include: American made effigy pipes, American made extended tubular concentric ring pipes, and European made white clay ball (kaolin) pipes.

**Projectile weapons**

Flint points, copper/brass points, musket parts, gun flints, and lead musket balls have been recovered at the site.

**Thimbles**

Copper/brass thimbles have been recovered from the site.

## APPENDIX F

### KIPP ISLAND

Kipp Island, located in the Montezuma Marsh, has produced numerious prehistoric sites (Ritchie 1980). In the existing Contact literature, there is no mention of this location being used by the Iroquois. Among the Cayuga Contact collections examined, nowever, both the Cayuga Museum of History and the Museum of the American Indian, Heye Foundation, produced small quantities of Contact materials provenienced to Kipp Island. Verification of a possible Contact site on Kipp Island is not probably, since all but the southern part of the island was destroyed during the course of the construction of the New York State Thruway in the early 1950's.

ARTIFACT ASSEMBLAGE

**Beads and Pendants**

Beads and Pendants recovered from Kipp are from the Cayuga Museum of History and include items made from glass, shell, gray slate, and bone. Glass beads recovered include: 6 Black TUbes with 8 White Stripes, 21 Union Blue Tubes, 30 Red Tubes, 2 Union Blue Tubes, 1 French Horizon Blue Round, and 1 Union Blue Seed. Twenty-one white wampum, 1 unfinished grey slate gorget, and 1 beaver pendant are also identified as coming from Kipp Island.

**Combs**

The 1 iron made comb recovered from Kipp Island came from the Harry Schoff auction and is now part of the Heye collection.

**Pipes**

A pottery pipe found by A. Helmes on the surface of the "canal bank, Kipp Island" is also part of the Heye collection.

## APPENDIX G

### THE DEAN SITE

The Dean Site is an unknown 17th century Cayuga Contact site somewhere in Cayuga county. All information concerning the site comes from the William Ennis collection, made sometime in the third quarter of the 20th century. The absence of data in the existing Cayuga Contact literature about this site makes the objects housed in the RMSC Collection (site number 247) the only record of this mid-17th century site.

Very little information exists about the site; even its precise location is not known. Since no notes concerning these excavations are presently available, what few features are known to exist come from the artifact lists. Materials studied come from the surface of the site, a "fire pit" (bean storage pit), a single burial, and from a refuse midden.

#### FEATURES

**Pits**

A "substantial quantity of carbonized beans was recovered from a storage pit" (RMSC artifact list).

**Burials**

A single artifact, a pewter rat-tailed spoon, has been identified as being recovered from a burial at the site.

#### ARTIFACT ASSEMBLAGE

All artifacts described below come from the RMSC collection (site number 277).

**Awls and Needles**

Excavation of the site yielded a number of bone, copper/brass and iron awls, including: 5 deer bone awls, 3 deer ulna awls, 2 deer long bone awls, 1 bone awl, 3 rolled copper/brass awls (re-used

European copper/brass), and 1 large iron awl (re-worked iron fragment). Four cut copper/brass straight needles were also recovered from the site.

**Beads and Pendants**

Beads and pendants recovered from the site include: red slate/catlinite beads and pendants, copper/brass tubular beads, copper/brass bangles, a copper/brass pendant, a perforated bear canine tooth and glass trade beads.

Red slate/catlinite recovered from this site include: 4 tubular beads and 11 pendants. Re-used copper/brass has produced 7 copper/brass beads, 15 copper/brass bangles and 1 copper/brass pendant. One perforated bear canine tooth was also recovered from the site.

All glass beads were recovered from the surface of the site and include: 8 Black Rounds,138 Red Rounds, 1 Black Tube, 1 Navy Blue Tube (white center), 227 Red Tubes, 3 Square-Twisted Red Tubes, and 1 White Tube.

**Blades**

Two iron rapier blade sections were recovered from the site. Both examples show cut marks on each end of the blade fragment, indicating intentional cutting for re-use.

**Bracelets**

The two small sheet copper/brass bracelets recovered from the refuse section of the site are American-made from European copper/brass.

**Buttons, Buckles, and Broaches.**

Excavations of the site yielded four European buttons: 1 copper/brass button, 1 hollow copper/brass button, and 2 black glass "Cassock" buttons. The single pewter buckle and the 1 lead broach were both recovered from refuse.

**Combs**

A number of combs and pieces were recovered from refuse in various stages of completion, including: 1 shovel-shaped antler comb

blank,1 diamond- shaped antler comb blank, 1 rectangular shaped antler comb blank,1 antler comb fragment, and 3 completed "cootie " combs.

**Containers**

The lack of pottery sherds in the assemblage examined indicates that either the excavator did not keep any sherds, or that alternate vessels must have been employed at the site. Copper/brass kettle usage is supported by the presence of 15 copper/brass kettle ears, 2 copper/brass patches, 1 copper/brass kettle bail and 1 iron kettle hook. Two glass bottle neck fragments were also recovered.

**Debitage**

Debitage recovered from the site includes bone, copper/brass, iron, and silver fragments. Bone pieces recovered from the site were: 10 worked and cut pieces of antler, 8 cut and worked antler tines, 1 worked piece of antler, and 1 worked piece of bone.

A number of reworked copper/brass objects were recovered from the site and include: 2 pieces of cut copper/brass, 1 bent heavy copper/brass wire piece with flattened end (similar to a modern "screw driver"), 1 straight piece of copper/brass wire, 1 coil of copper/brass wire, 3 "shovel shaped" copper/brass objects, 8 pieces of twisted sheet copper/brass, 5 reworked copper/brass pieces, 4 small pieces of copper/brass with punctured holes, 7 reshaped copper/brass strips, 1 pieces of cut copper/brass of unknown form, 1 copper/brass "ornament" and 1 copper/brass spring complete the copper/brass inventory from the site.

One iron strap fragment, 1 iron scrap fragment, and 10 sliver size silver fragments were also recovered from the site.

**Drills**

One flint drill was recovered from the surface of the site.

**Fauna, unworked**

Unworked fauna recovered includes: 6 deer phalanges, 1 raccoon penis bone, 1 bear canine tooth, 2 beaver incisors, 1 elk incisor tooth, and 1 small mammal incisor.

**Fishing gear**

One antler point with line hole was recovered from the refuse midden and may have served as a harpoon.

**Flaking tools**

Recovered from the refuse midden were 11 antler flaking tools.

**Food**

A "substantial quantity of carbonized beans were recovered from a storage pit" (RMSC artifact list).

**Jew's harps**

Two copper/brass jew's harps were found in refuse.

**Knives and Scrapers**

Knives recovered from the site include: 3 long, pointed iron knives (1 European-made rat-tail knife, and 2 American-made knife blades), 2 long, blunted knives (1 European-made iron flat-stock knife and 1 American-made copper/brass knife), 4 iron long blade fragments (1 European-made iron flat-stocked knife, 1 European-made iron rat-tail knife, 1 European-made knife fragment, and 1 American-made knife fragment), 3 short, blunted iron European-made knives (2 rat-tail and 1 flat-stock knife), and 1 short, circular European-made rat-tail iron knife. Also recovered were 1 undecorated bone knife handle fragment, 1 iron knife fragment, and 2 flint knives.

Two iron scrapers, re-worked from European iron, were recovered at the site.

**Nails**

In the course of excavation, 14 complete iron nails and 6 iron nail shanks were recovered.

**Pipes**

Among the Native pipes recovered at the site were: 1 Native pottery pipe bowl section, 1 pewter pipe stem, 1 bird effigy pipe bowl decorated with rows of dots, 1 human face effigy pipe bowl, 1

human face from effigy pipe bowl, and 1 Native pottery pipe stem. Twenty European white ball clay "kaolin" pipe stem fragments (all diameters measuring 6/64 ") were recovered from the site.

**Projectile weapons**

Firearms recovered from the site include: 1 "type II" gun lock with hammer (after Puype 1983), 1 "type III" gun lock, 2 circular native gun flints, 1 complete Dutch gunflint, 1 chip of Dutch gun flint, 1 lead musket ball, a small quantity of copper/brass swan shot, 2 copper/brass gunstock ornaments, 4 ramrod clips, 1 copper/brass rear gun sight, 1 gun reamer, 1 gun screw. Recovered also from the site were 20 triangular copper/brass points, 4 triangular flint points, 3 antler arrow point, and 13 antler points in process of manufacture.

**Finger Rings**

One sheet copper/brass finger ring was recovered (re-used European copper/brass).

**Saws and Chisels**

A single saw, made from an iron flat-stock iron knife handle fragment, was recovered from the site.

One iron chisel and 1 antler chisel were also recovered.

**Scissors**

One complete pair of scissors and two different scissor halves were recovered in the course of excavation. Initial classification of this material identified the individual scissor blades as knives, and it is possible that they may have been re-used as such.

**Spoons and Ladles**

Three complete pewter spoons, including 1 rat-tail example, were recovered from the site. A handle from a fourth pewter spoon was also recovered at the site.

**Whizzer**

One lead whizzer (similar in shape to a shell discoidal bead) was recovered from the site.

## APPENDIX H

### THE ROGERS FARM SITE

The Rogers Farm Site is a multi-occupational site in Savannah, Wayne County and occupies a point of land where Cayuga Lake is joined by Crusoe Creek and the Seneca River. Identified as early as the 1890s, the site was excavated by Rochester Museum of Arts and Sciences (presently the Rochester Museum and Science Center) in 1935. The site was also examined by Harry L. Schoff at about the same time (Stewart 1942:25). In the late 1940s, Arthur Seeley studied the prehistoric occupations of the peninsula in question and plotted the location of individual Contact artifacts (Seeley 1950: 4). The most recent collections from the Rogers Farm Site were made by Harold Secor, who surface collected in the immediate area and who had in more recent years excavated a small cemetery for the landowner. In 1983, Mr. Secor's collection was acquired by the Rochester Museum (site number 211). Material included in this study came from the Rochester Museum and Science Center's collections, and the private collections of Harold Secor of Savannah, New York, and Bob Gorall of Newark, New York.

The site consists of a small "village" area, a large cemetery and a smaller, family size cemetery. A third cemetery may have existed, but due to construction in the immediate area, there is little direct evidence for this. All artifacts recovered are either grave goods or surface finds.

VILLAGE AREA

While no direct excavations were carried out in the village area of the site, some surface collecting has been done. From the concentrations of surface finds, the evidence suggests that the village is located primarily north of Morgan Road on the Rogers property and continues onto the Hunter's Home property, producing a celt-like shape. No evidence of a palisade has been found and the exact dimensions of the settlement are impossible to establish. Almost all surface finds listed in the Artifact Assemblage are from this small location.

BURIALS

The main cemetery of the Rogers Farm Site is located southwest of the village. The cemetery was found to contain some thirty-five burials containing the remains of approximately fifty individuals. Of these fifty, ten were definitely identified as being under the age of twelve, while one burial housed the remains of eight individuals and may have possibly served as an ossuary, possibly suggesting a captured Huron population among the Cayuga (Stewart 1934).

The second cemetery was located 50 yards west of the main cemetery, farther away from the village and consisted of only six burials: three were single adult burials, one single child burial, and one double infant burial. The remaining burial did not exhibit any skeletal remains.

Although there has been no direct proof that a third cemetery existed at the site, its existence has been postulated by the location of individual Contact graves (Seeley 1950: 4). Verification of this, however, is difficult since the postulated Contact cemetery overlays an extensive prehistoric site (the Hunter's Home Site). Also, since the area in question has been extensively developed by the present owners, the issue is further complicated.

**Cemetery 1**

Cemetery 1 was partially excavated by Rochester Museum of Arts and Sciences (presently the Rochester Museum and Science Center). The information presented below comes from a single day's excavation in 1935; the notes of which are preserved in the RMSC site file. The artifacts described, if kept, were added to the RMSC Iroquois artifact collection.

B-1 at the depth of 1 foot, the leg bones of 3 disturbed skeletons and a single skull and mandible were found. Artifacts recovered include: an iron knife with a native bone handle, a chunk of iron, 2 iron knife blades, a curved iron bar, a cut bear's jaw, and 3 iron fragments. Burial dug by Bailey.

B-2 a (single?) badly decayed skeleton. An iron knife was recovered beside the lower leg bones. Dug by Bailey.

B-3 single adult flexed burial. Artifacts recovered include: a large brass kettle with a patch and containing animal ribs, hickory nuts, and fragments of ladle. Standing in a perpendicular position and extending from the kettle to bones of feet were: 1 sharpening stone, a European rapier blade, 1 disk, 5 iron spear points, a long iron saw, 4 curved wood working knives, an iron fishhook, 2 iron scrapers, 2 iron knife blades, an extended elbow pottery ring bowl pipe, 1 antler powder measure, and an iron wood-working tool with a carved bone handle. Burial was dug by Bailey.

C-1 a skull fragment, 1 mandible, and several other human bones noted. There is no mention of any artifacts. Burial dug by Cavallaro.

C-2 skull fragments and few misc. bones found. Artifact recovered include: 2 or 3 copper/brass kettle fragments. Dug by Cavallaro.

C-3 skull fragments and misc. bones only. Dug by Cavallaro.

F-1 child red ochre burial at depth of 1 foot. Artifacts include: beads, a pewter cup, a brass kettle ("tog"?), beads around the neck, 2 shell runtees, a brass medallion, several shell tubes, and a small copper/brass kettle. A toy copper/brass kettle contained red ocher. The grave was stained throughout with red ochre. Dug by Fisher.

F-2 single adult burial at depth of 3 feet containing no grave goods. Burial dug by Fisher.

F-3 just below plow line was a single adult burial. Artifacts include: 32 triangular arrow points and 1 worked chert fragment. Dug by Fisher.

F-4 (a) just below plow line, 2 adult skeletons found. Skeletons crossed "hips with hips at opposite ends". A single triangular point was also recovered. Burial dug by Fisher.

F-4 (b) adult(space); no grave goods. "Burials all flexed". Grave goods near knees in all burials. Burial dug by Fisher.

F-5 single adult bundle burial, southeast of Bailey's "iron adze grave". Grave fill very black, bones in very good condition. No artifacts were reported. Dug by Fisher.

F-6 disturbed burial few inches below surface. Adult(?) in very poor condition and no grave goods were noted. Dug by Fisher

F-7 disturbed bundle burial previously found by Hoffman (Aug. 1935) at which time the skull, 2 glass beads and bear canine tooth were removed. Several additional glass beads and a bear canine were found in the second digging. Skull saved; senile. Re-dug by Fisher.

F-8 disturbed burial of child and adult female at a depth of 1 foot. No artifacts recovered; jaw of child saved. Burial dug by Fisher.

H-1 2 feet below plow zone, two adult burials in poor condition reported; nothing saved. Dug by Hoffman.

H-2 2 feet below plow zone, double burial, one child, one adult. Artifacts recovered include: a musket barrel, an iron knife, a chisel, 2 pieces of brass, and one hammerstone. Dug by Hoffman.

H-3 disturbed (single ?) adult burial. Artifacts recovered include: 4 glass beads and 1 small piece of copper/brass. Dug by Hoffman.

H-4 7 feet below plow zone, a single skull and a pile of bones were found. Under this pile 8 more skulls were found. No

artifacts have been reported as coming from this burial dug by Hoffman. The photo taken of H-4 has, unfortunately, been lost in the intervening years.

H-5 double burial, badly decomposed 9 year old child skeleton at 1 foot depth, poorly preserved skeleton of adult at 2 feet depth. No artifacts reported. Dug by Hoffman.

H-6 single child burial, about 12 year old, flexed position on left side facing south, head west, bones in poor condition. At the feet of the burial were 2 iron knifes (one with bone handle), 1 iron drill, some pieces of copper/brass fastened to wood (possibly a repaired wooden bowl fragment), 19 sections of worked shell, and a section of bark and hair. Burial dug by Hoffman.

H-7 disturbed 10 year old child burial. Artifacts recovered include: three copper/brass finger rings and a small string of yellow, red and black beads around neck. One ring was found under the knees, and the other two were found under the chin, suggesting that they were part of a necklace. Dug by Hoffman.

O-1 double burial at depth of 3 feet, 6 inches. Artifacts include one chunk of iron. Burial dug by Occur.

O-2 single adult burial just below plow line in very poor condition. No grave goods were recovered. Dug by Occur.

O-3 double burial, skulls crushed, bones scattered throughout grave. Artifacts recovered include fragments of pottery only. Dug by Occur.

O-4 flexed child burial at a 2 foot depth. Behind the skull was a small copper/brass kettle, a quantity of wampum, and 5 shell runtees. A quantity of shell tubes was also recovered from around the midsection of skeleton. At the feet were noted a: copper/brass spoon, an antler comb with three

figurines, an iron knife with a bone handle, 1 musket iron mainspring, 2 small pottery pipes, a snuff box (a mirror box?) with water inside, a crucifix, 1 Jesuit medal, 1 Jesuit cross, 2 pieces of an iron knife, a piece of glass, and pottery fragments. Scattered throughout the grave were numerous black and red glass beads. Grave dug by Occur.

O-5 disturbed burial of a child and an adult. Bones in poor condition and no artifacts were reported. Dug by Occur.

R-1 artifacts recovered include: a copper/brass kettle (mid. size), a wooden ladle, a wooden comb, and a piece of a green blanket from underneath the kettle. Dug by Ritchie.

R-2 good skull, adult skeleton. Artifact recovered include a copper/brass kettle and an iron axe. Burial dug by Ritchie.

R-3 adult skeleton with portions of brown blanket and bark adhering to arm and ribs bones. Artifacts recovered include: a large cut up copper/brass kettle, a wooden ladle, a copper/brass bracelet, an iron bracelet, a white ball clay "kaolin" trade pipe, 3 large animal vertebrae, and "cornbread". Dug by Ritchie.

R-8 disturbed adult burial, bones widely scattered in stained sand, "as though dug into by the Indians themselves". No artifacts noted. Burial dug by Ritchie.

R-9 Disturbed shallow child burial, bones widely scattered. "Condition similar to #8." No grave goods but a small piece of a copper/brass kettle noted. Dug by Ritchie.

**Cemetery 2**

Cemetery 2 was excavated by Harold Secor for the land-owner. The materials, as well as notes of these excavations, were acquired by the RMSC in 1983 (site number 211).

B-1 turned up by plow and included "some grave goods". Excavator unknown.

S-2 20" below B-1. Flexed burial, head facing west. A broken long musket, a copper/brass kettle, a quantity of lead bullets, a string of red glass trade beads, a mass of trade cloth, a pair of iron scissors, a small comb, and many other much corroded articles were recovered. The bent musket barrel and the lock were separated from the corresponding musket stock previous to interment. Dug by Secor.

S-3 flexed child burial, head facing west, 20" depth. A pewter mug and a small copper/brass was recovered from the north side of interment, and a string of Red Rounds and copper/ brass coils were recovered from around the neck. A quantity of long shell beads were also found around the head. A wampum belt fragment was found in the chest area, 8 or 9 beads wide and 20 inches long; the design being white with a few diagonal purple lines. At the foot of the burial, a dog skeleton was discovered. Burial dug by Secor.

S-4 flexed burial, 30" depth, head to the northwest. Iron bracelet and trade beads were recovered from around the left arm. Dug by Secor.

S-5 flexed burial, 30" depth, head to northwest. No grave goods reported. Burial dug by Secor.

S-6 double infant burial. A large quantity of glass, shell, wampum beads, several shell pendants, a copper/brass vessel, an iron knife, game stones, a tortoise shell rattle, a small wood bear effigy, and "many other objects" were recovered. Dug by Secor

**Cemetery 3**

Evidence of cemetery 3 is limited to references in the Cayuga Contact literature (Seeley 1950: 4; Secor Notes, RMSC).

Sel-1 "a Historic Iroquois grave", in the area of cemetery 3, is listed on a map of the prehistoric Hunter's Home site.

Sec-15 lists a Contact burial being recovered at the Hunter's Home Site. Among the artifacts recovered from the burial is an iron trade axe, and 1 long red glass tubular "cane" bead.

ARTIFACT ASSEMBLAGE

While the majority of the artifacts examined come from RMSC (site number 211 or AR numbers), a few objects are included that are either from private collections or the Cayuga Contact literature. Artifacts not found in the RMSC holdings are so noted.

**Axes and Celts**

Two iron trade axes were recovered from burials and 1 iron axe was recovered from the surface of the site. A fourth iron trade axe is reported as being found in a burial in Cemetery 3 (Secor notes, RMSC site file).

**Beads and Pendants**

Objects recovered include items made from bone, shell, copper/brass and glass. Materials not recovered from burials include: 1 shell gorget (3" diameter, perforated by iron and flint drills, forming 2 birds back to back in the center of the gorget and with 2 rows of drilled dots around the inside edge of gorget), 1 complete turtle shell pendant, 2 round bone beads, 1 shell crescent pendant, 8 copper/brass bangles, 27 copper/brass spring beads, 6 tubular copper/brass beads, 1 copper/brass pendant, 247 Black Rounds, 2 Black Rounds with Red in White Stripes, 2 Union Blue Rounds, 315 Red Rounds, 245 Black Tubes, 75 Black Tubes with 4 Red Stripes, 14 Black Tubes with 4 White Stripes, 6 Black Tubes with Red in White Stripes, 13 Union Blue Tubes, 1 Twisted Union Blue Tube, 1 Union Blue Tube with 4 Red Stripes, 1 Union Blue Tube with Multiple White Stripes, 195 Red Tubes, 3 Twisted Red Tubes, 1 Red Tube with Raised Stripes, 1 Red Tube with Blue Stripes, 40 Gold Tubes, 16 Clear White Tubes, 65 White Tubes with Black Stripes, 74

White tubes with Red Stripes, 5 Red Footballs, and 2 White Footballs.

Beads and Pendants recovered from burials include: 9 perforated shell runtees, 2 shell loon pendants, 23 shell tubes, 146 tubular shell beads, 926 wampum, 1 white and purple wampum belt fragment (8 or 9 beads wide, and 20" long), 19 worked shell pendants, 8 Shell ear plugs, 6 copper/brass spring beads, 121 copper/brass seed beads, 234 Black Rounds,1 French Horizon Blue Round, 379 Red Rounds, 21 OD/White Rounds, 17 Ivory Rounds, 38 Black Tubes, 61 Black Tubes with Red Stripes, 22 Black Tubes with Red in White Stripes, 10 Union Blue Tubes, 270 Red Tubes, 14 Gold Tubes, 80 White Tubes, 4 White Tubes with Black Stripes, and 13 White Tubes with Red Stripes.

**Bells**

Recovered from the site was a small copper/brass hawk bell with a wooden ball inside.

**Blade weapons**

One unmodified iron stiletto blade and 1 unmodified and complete iron rapier blade were recovered from cemetery 1.

**Blanks**

All blanks recovered are from burials and include: a large piece of iron, 4 1/8 x 2", and a curved iron bar.

**Bracelets**

All bracelets and bracelet fragments were recovered from burials and include the following: 1 bracelet made of rolled copper/brass wire, 1 complete iron bracelet, 2 iron bracelets in fragmentary form, and 4 iron bracelet fragments.

**Buttons**

Two copper/brass buttons, 1 marked "superior quality", were recovered from the site.

**Combs**

All combs were recovered from burials and include: 1 human

effigy antler comb (three full-sized human effigies crudely carved and decorated with scratched on design), 1 human effigy wooden comb (3 human figures with outstretched, joined arms and decorated with scratched on design) and 1 bone coote comb fragment.

**Containers**

While the RMSC excavation notes make mention of sherds being recovered from burials, an examination of these sherds suggests that all but two are pre-Iroquoian. Most likely, they sherds are related to the Woodland Hunter's Home site and are from the Hunter's Home occupation.

Copper/brass kettles are recovered in large quantities from burial and include: 1 large copper/brass pot with brass handle, 1 copper/brass kettle with iron handle (1 repair from inside, 5 inch height, 10 inch width at mouth, 7 inch wide at base), 1 copper/brass kettle (repaired with rivet near bottom, 4 inch height, 8 1/2 wide at rim, 6 inch wide at base), 1 copper/brass kettle with an iron handle (no repairs, 3 inches high, 7 inch wide at mouth, 4 1/2 wide at base), 1 copper/brass kettle with no ears and no bail (no repairs, 3 inch height, 7 inch wide at mouth, 4 1/2 wide at base), 1 small copper/brass kettle (2 3/4" diameter, 1 1/2" height), 1 copper/brass kettle ( 5 3/4" dia, height 2 7/8", handle and one ear missing), and 2 small copper/brass vessels with iron handles. Also reported from burials are: 1 possible wooden bowl (3 copper/brass patches with fragments of attached wood), 1 pewter cup ( 2.25" diameter, height 3.25", with small suspension hole near the rim, 1 pewter mug, 1 complete iron mirror box, 1 iron mirror box fragment and 5 copper/brass kettle patches. Five copper/brass patches are also reported as being found on the surface of the site, as is a single copper/brass kettle ear.

Two other copper/brass kettles, as reported in the Cayuga Contact literature, were not available for analysis (Seeley 1950: 4; Secor notes).

**Coins**

A single copper/brass French liard coin, no date visible, was recovered from the village area (Robert Gorall collection).

**Debitage**

Two pewter fragments, 5 flint chips, 1 copper/brass tack point fragment, and 41 pieces of scrap copper/brass were recovered from the site

**Drills**

One iron drill (burial) was recovered from the site.

**Effigies and Ceremonial Objects**

A small wooden bear effigy, a cut bear's mandible and a double-wrapped snake skeleton were recovered from burials.

**Fauna, unworked**

Recovered from the site were 2 bear canines.

**Finger rings**

Copper/brass Jesuit Christianization rings recovered from the site include: 2 engraved L and Hearts (burial), 1 engraved IHS (burial), 1 stamped-embossed L and Heart (surface), and 1 stamped-embossed Clasp Hand (burial).

**Fishing gear**

Three iron fish hooks were recovered from burials.

**Food**

Food items recovered are grave good offerings and were preserved in copper/brass kettles. Items recovered include: small hickory nuts, 3 large animal vertebrae, and a section of "corn bread".

**Gaming stones**

Five gaming stones were recovered from burials.

**Hammerstones**

A single stone hammerstone was recovered from a burial.

**Jew's Harps**

One iron jew's harp was recovered from the site.

**Knives and Scrapers**

All knives from the site are iron and European-made. Knives recovered from burials include: 2 long, pointed knives (1 straight rat-tail knife and 1 curved iron flat-stock knife), 1 curved rat-tail knife with long, blunted blade, 4 short, blunted rat-tail knives (1 straight knife with a plain bone handle, 1 curved knife with carved "circle and diamond pattern" bone handle, 1 straight knife blade and 1 curved knife), 2 unmodified folding-clasp knife blades (burial), 1 rat-tail knife with a native bone handle and a fragmentary blade, 1 flat-stock blade fragment, 2 iron knife fragments, 1 curved iron rat-tail knife fragment, 1 iron knife blade point fragment, and 1 rat-tail knife with carved "herring bone pattern" bone handle (blade fragmentary). A single rat-tail knife was also recovered from surface of the site. The one modified item, a curved iron rat-tail knife with a long, pointed blade, was made into a saw.

Of the 4 iron scrapers recovered, 3 are from burials and 1 is unprovenienced.

**Nails**

Six iron nails with adhering wood were recovered from burials.

**Organic**

Organic materials recovered all come from burials and include: 2 wood fragments, 1 sewn pieces of leather with fur, 2 pieces of iron rust with cloth impressions, 7 pieces of cloth and wool material fragments, 6 pieces of bark and reed matting from burial floor, 1 section of a bark and blanket burial floor, 1 black bear fur and hide fragment, 1 green blanket fragment, a section of a brown blanket, and 4 sections of cloth material.

**Pipes**

Clay pipes recovered from burials include: 1 small punctate designed trumpet pottery pipe (native production), 1 extended trumpet ring pottery pipe with 13 incised lines on the bowl (native production), and 1 white ball clay (kaolin) "EB" trade pipe (European production). Also recovered were 2 wooden pipe bowl fragments (burials), and 1 black pottery decorated pipe stem (surface).

**Projectile weapons**

Projectile weapons recovered include: European fire arms and accouterments; copper/brass and flint projectile points and iron spear points.

Firearms recovered include: 1 complete flintlock (burial, type V-C, after Puype 1985: 79), 1 mainspring (burial), 1 cock (surface), 1 trigger (surface), 2 sear springs, 1 long bent musket barrel with musket stock fragment and front sight (burial), 1 iron trigger guard (3 pieces, burial),1 copper/brass ramrod holder with wooden ram rod fragment (burial),1 musket brass butt plate with wooden stock fragment (burial), and 1 pistol copper/brass butt plate. Fourteen European gun flints and 3 Native gun flints were also recovered from the site.

Firearm accoutrements recovered include lead musket balls and a powder measure. Lead musket balls recovered include: 10 lead musket balls, 8 lead musket ball with molding spruce, a small quantity of lead swan shot (burial), 1 cut musket ball, 1 lead musket ball (poured short), and 1 chewed lead musket ball. One antler powder measure with perforated lug on top for suspension was also recovered from burial.

Metal projectile points recovered include: 5 iron spear points (made from 1/4" iron circular stock, between 6 -10" in length, burial),1 triangular brass point with attached shaft (burial), and 12 triangular copper/brass points.

The multi-occupational nature of the site precludes the inclusion of most lithic surface finds into the Contact period artifact assemblage. The 3 Iroquois flint projectile points recovered include: 2 concave base gray chert triangular projectile points (burial) and 1 straight base gray chert triangular point (burial).

**Rattles**

Recovered from a burial was 1 complete tortoise shell rattle.

**Religious items, European**

One round copper/brass medal (Madonna with Child on one side; Christ on the other) and 1 small octagonal religious medal with no discernible images was recovered from a single burial. Crucifixes

recovered include: 1 copper/brass upper half of a crucifix (burial) and a copper/brass *Corpus* with a portion of the wooden cross preserved (burial).

**Rings**

An iron ring, three inches in diameter, was recovered from the surface of the village area.

**Scissors**

One small pair of iron scissors was recovered from a burial.

**Spoons and Ladles**

All spoons and ladles recovered come from burials and were made of wood or copper/brass. Objects recovered include: 1 copper/brass spoon, 1 wooden ladle (in 3 pieces), 1 spoon part of wooden ladle, 1 small wooden ladle (in four fragments), 1 wooden ladle (in two pieces), 1 wood ladle handle with clinging material and 2 wood ladle fragments.

**Saws and Chisels**

Both iron saws recovered come from burials (1 European-made 11.25" long iron blade with a single serrated edge and 1 American-made saw modified from a curved iron rat-tail knife with a long, pointed blade).

The 1 iron chisel recovered came from a single burial.

**Whetstones**

A single stone pestle, re-used as a whetstone, was recovered from the surface of the site. Another whetstone was recovered from a burial.

**Window glass**

A fragment of opalized glass was recovered from a burial.

## APPENDIX I

### THE MEAD FARM SITE

This site is an extremely well known 17th century Cayuga site, a mile west of Mapleton, on 10 to 12 acres, lot 95, Fleming Township, Cayuga County. The site is located on Yawger Creek (also called Hughes, Wheeler and Van Sickles Creek), and as of 1942, a large village area, a refuse dump, multiple refuse heaps, and 3 cemeteries had been located. Given the site's central location and close proximity to the city of Auburn, it has suffered tremendously from collectors and commercial diggers, all of whom have removed large quantities of materials (Skinner 1921: 49).

Historical references in the **JR**, as well as a map made by Father Peter Raffiex S.J., locate the mission of St. Joseph as being in general proximity of the Mead Farm site. This claim is also substantiated by the archaeological materials found at the site, which indicate that the Mead Farm was occupied by the Cayuga at roughly the same time as the Mission. Thus, it is probable that the Mead Farm Site is the location of St. Joseph.

At the time the mission was in operation, however, the Cayuga occupied three villages within a league of each other (known from the historical account of Wentworth Greenhalgh's visit to the Cayuga in 1677, from Greenhalgh 1677, in O'Callaghan 1850:16). Archaeological mid-17th century material has been noted at three different locations besides that of the Mead Farm site (Fleming or Lamb site, Cranebrook east, and Cranebrook west, Follett's map). Like the Mead Farm site, these sites were also extensively looted. Nevertheless, existing information does not suggest an occupation as extensive as the one at the Mead Farm. Thus, while the possibility exists that the St. Joseph mission was at a different location, it is most probable that the St. Joseph mission existed at the Mead Farm site. However, in order not to perpetuate a possible error, the site on lot 95 will be referred to as the Mead Farm Site.

The site has also been known under the names of its various owners: Van Arsdale, John Gann (periodically mis-spelled Gan's, Gans or Ganz), and Erbeck. The site has also been erroneously referred to

as Old Town or Upper Cayuga which was destroyed by Sullivan's army in 1779 (Beauchamp 1900: 39). While certain authors refer to the Mead Site as Fleming for Fleming township, the Fleming site exists about a mile east of the Mead Farm (Follett n.d.). Also while certain individuals (Follett 1946: no. 7) identify the Mead Farm site as Mapletown for the nearest hamlet, others (Ward 1949: 22) imply a different site location from St. Joseph (Ward's name for the Mead Farm site).

VILLAGE AREA

The village component of the site has produced many house sites which "are visible when the field is under cultivation. Extensive occupation is evident in all directions east of the creek bed" (anonymous n.d., ch. 2,: 2). Unfortunately, little concrete information about the actual structures exists. Some have reported "100 cabins" in the village area, (Stewart 1942: 29) while others have indicated "13 houses" (Beauchamp 1900) and the first use of the longhouse" (Follett 1953: 45). Given that these observations are, in all probability not first-hand, little can be said at this time about the village settlement pattern.

FEATURES

No features have been identified in either the Cayuga Contact literature, or in the artifact collection lists.

BURIALS

Given that the cemeteries of the Mead site have been subject to commercial excavation since the third quarter of the 19th century, much information has been lost. The existing artifact collections, which identify finds as "burial", rarely provide any further information to the relationship between these objects. Nevertheless, two published accounts of burial excavations, as well as a few provienced individual burial assemblages, have been identified. The information presented below was taken from the Cayuga Contact literature, as well as RMSC artifact lists (site numbers 210, 250, and 281).

An undated interview conducted by General John S. Clark with Mr. Griffen in the last quarter of the 19th century is illustrative of

the types of materials uncovered. "We dug out in a space of 36 square feet nineteen skeletons, 2 gun barrels, 6 or 8 tomahawks, 1 pipe (with) very large metal stem, 18 inches long, one (skeleton) had brass/copper, and steel bracelets around arms and legs, one above wrist and one above elbow made of wire worked back and forth, tobacco, pouches, powder horns, etc. All laid north and south, laid down flat, bark plainly to be seen" (Clark: unpublished manuscripts; Follett 1946f).

**Individual Burials**

A-1 was excavated by W.W. Adams on 2 May 1888. Artifacts recovered from the single grave include: "1 brass kettle, 17 flints, 2 gunflints, 6 bullets, 6 long shell beads, 1 bone harpoon, 3 antler handles, 1 knife with an antler handle, 2 large shears, 1 gun, 1 piece of black paint, 2 trigger guards, 1 gun cleaner, a quantity of gun powder, 21 native made gunflints, 3 bars of lead, 5 rubbing stones, 16 canine teeth of bear, 2 axes, 2 pairs of shears, 4 pairs of bullet-molds, 2 gunlocks with flints, 32 knives and edged tools, 1 pipe, 1 piece of mica, 1 wormer, 1 steel and two flints, 2 melting ladles, 2500 wampum beads, and a quantity of Jesuit rings" (Skinner 1921: 51).

D-1 a single digging stick made from gun barrel was identified as coming from burial #1; Doyle collection, RMSC collection.

E-2 includes: 52 white wampum, 4 White Rounds, 60 White Seeds, 17 Yellow Seeds, 6 Green Seeds, 63 Union Blue Seeds, and 34 French Blue Seeds, Ennis collection, RMSC collection.

E-3 glass beads recovered from burial #3 include: 171 black tubes, 1 black tube with white strips, 398 red tubes, 44 gold tubes, 2 white tube with red strips, 1 black round, 43 red round, 1 white round, 136 black seeds, 43 union blue seeds, 2 French blue seeds, 146 red seeds, and 165 white seeds. Also recovered from burial #3 were: 32 two holed shell crescent pendants, 1 shell tube, 1 shell loon, 1 shell discoidal, 472 wampum beads, 33 copper/brass bangles, mount of brass seed

beads, 1 bear canine, a rectangular glass mirror, 3 small copper kettles (one 2 1/2 inch tall, 6 1/4 inch wide at rim, two 3 inches tall, 9 inches wide at rim), 1 long stemmed pewter human effigy pipe, 1 long-stemmed pewter effigy pipe, 1 antler conical projectile point, 1 copper/brass thimble, a hematite paint cup with vermillon pigment, 1 copper/brass finger ring with clasped hand motif,1 copper/brass finger ring with glass stone inset, 1 European-made iron rat-tail knife with long blade, and fragments of turtle shell rattle with 2 rattling stones, Ennis collection, RMSC.

D-4 includes 1 iron rat-tail knife with long, pointed blade. Another iron knife was reported from burial 4, but is presently missing. Both from the Doyle collection, RMSC.

E-4 artifacts include: 2 complete iron bracelets, 1 iron bracelet fragment, 1 iron bail for copper/brass kettle, 1 small copper/brass kettle, 2 1/2 in tall, 4 3/4 inch wide at rim, 1 small copper/brass kettle, 3 inch tall, 7 1/2 inch wide at rim, 1 small copper/brass kettle, 3 inch tall, 6 inch wide at rim, 1 section of turtle shell rattle, 1 iron strike-a-light, 1 section of lead bar, and 1 lead tube section; Ennis collection, RMSC.

E-5 includes: 1 iron chisel, 1 blowing mask effigy pottery pipe with short stem, and 1 iron hammer (European nail driving tool); Ennis collection, RMSC.

E-9 includes: 1 copper/brass serpentine musket ornament, 1 pointed wooden object,1 pottery pipe stem fragment, 1 iron knife with short blade and perforated handle, and 1 iron rat-tail knife with long blade and an engraved bone handle; Ennis collection, RMSC.

D-14 includes a complete musket with the following parts: an iron octagonal barrel, 1 fire-lock, 1 iron trigger, 1 iron trigger guard, 1 copper/brass butt plate, 1 butt stock fragment, 1 copper/brass gun stock clip, and 2 copper/brass ramrod holders; Doyle collection, RMSC.

## ARTIFACT ASSEMBLAGE

While the majority of artifacts examined comes from the RMSC collection (site numbers 210, 250, and 281), a string of beads is from the CMH and 5 worked bone fragments are from the author's collection. Particular artifact descriptions taken from the Cayuga Contact literature are thus noted.

### Agricultural tools

Agricultural tools recovered come from burials and include: an iron sickle and 1 digging stick made from a bent musket barrel.

### Apothecary weights and measures

One copper/brass apothecary weight and measure was recovered from a burial.

### Awls and Needles

Of the 19 iron awls recovered, 5 are from burials and 14 are without provience. One deer rib needle and 1 copper/brass weaving needle were also recovered from burials.

### Axes and Celts

Axes recovered from the site include: 10 complete iron trade axes, 1 complete iron belt axe, and 2 iron axe fragments. One complete stone celt was also recovered from the site. From the Cayuga Contact literature, there is mention that "6 or 8 tomahawks" (Follett 1946d) and 2 iron axes (Skinner 1921: 51) were recovered in the later half of the 19th century.

### Beads and Pendants

Beads and pendants recovered were made from a number of different materials, including: bone, shell, copper/brass, glass, red shale/catlinite and gray slate.

One perforated deer phalanx cone was recovered from a refuse midden and 1 perforated bear tooth was recovered from a burial. A single perforated blackbear canine pendant is reported in the Cayuga Contact literature (Skinner 1921: 74).

Shell beads and pendants recovered from burials, include: 524 wampum, 3 two holed crescent pendants, 1 shell loon, 29 shell

crescents and part of wampum belt preserved on fragment of copper bracelet. Material recovered from refuse midden include 8 tubular shell beads and 1 rectangular shell pendant. Unprovenienced shell materials examined include: 36 loons pendants, 42 shell runtees, 34 shell discoidal, 497 wampum, 100 shell crescents, 187 tubular shell beads and 3 shell goose pendants.

Copper/brass materials recovered from burials includes: 3 mounts of brass seed beads, 17 tubular brass beads on leather fragment, 4 double spiral brass ornaments, 9 copper coil beads, 42 copper/brass bangles, 4 copper tubular beads, 2 copper spring beads, and 1 spiral flat copper ornament. Unprovenienced copper/brass pendants include: 2 brass spirals and 1 brass bangle.

Glass beads recovered from burials, RMSC collection, include: 1 Black Round, 278 Red Rounds, 5 White Rounds,118 badly corroded "pressed" Translucent Kelly-Green Rounds, 287 Black Tubes, 38 Black Tubes with Red Stripes, 23 Black Tubes with White Stripes, 42 Union Blue Tubes, 6 Union Blue Tubes with Red Striped, 5 French Horizon Blue Tubes, 512 Red Tubes, 7 Red Tubes with Blue in Red Stripes, 3 red Twisted Tubes, 156 Gold Tubes, 19 White Tubes, 17 White Tubes with Red Stripes, 2 White Tubes with Blue Stripes, 231 Black Seeds, 133 Union Blue Seeds, 78 French Horizon Blue seeds, 160 Red Seeds, 6 Green Seeds, 17 Yellow Seeds, and 285 White Seeds.

Unprovenienced glass beads from the RMSC collection include: 5 White on Black Marble Rounds, 222 Black Rounds, 26 French Horizon Blue Rounds, 13 Kelly Green Translucent Rounds, 634 Red Rounds, 43 Black Tubes, 27 Black Tubes with Red Stripes, 28 Black Tubes with White Stripes, 38 Black Tubes with Red in White Stripes, 15 Union Blue Tubes, 5 French Horizon Blue Tubes, 181 Red Tubes, 5 Red Twisted Tubes, 5 Red Tubes with White Stripes, 5 Red Tubes with Blue in White Stripes, 27 Gold Tubes, 34 White Tubes, 1 White Tube with Red Stripes, 1 Kelly Green Football, 1 Union Blue Football, 3 Union Blue Football with White Stripes, 2 Union Blue Footballs with White and Red Stripes, 2 White Chevrons with Blue and Red Stripes, 2 Black Seeds,12 French Horizon Blue Seeds, 517 Red Seeds, 305 White Seeds, and 5 White Seeds with Blue and Red Stripes.

Recovered also from the site were 2 unprovenienced red catlinite beads (RMSC), as well as 1 quatrefoil stone ornament from

an ash-heap (Skinner 1921: 112).

A few unprovenienced beads and pendants from the Mead Farm site were also examined from the Ward collection, CMH. These include: 2 red shale/catlinite beads, 1 copper/brass bangle, 177 white wampum, 3 Black Rounds, 3 French Horizon Blue Rounds, 273 Red Rounds, 13 Black Tubes, 9 Union Blue Tubes, 239 Red Tubes, 1 Gold Tube, 1 White Tube, 5 French Horizon Blue Footballs, 7 Red Footballs, 3 Clear Footballs, and 7 White Seeds.

From the Cayuga Contact literature, Red Rounds and Red Tubes, "in about equal numbers", are listed as the predominant beads recovered (Ward 1947b: 2; Ward 1948: 43; DeOrio 1978). Also, in 1888, 2500 wampum and 6 long shell beads were removed from a single burial (Skinner 1921: 51).

**Bells**

Four copper/brass hawk bells were recovered from burials and copper/brass hawk bell was recovered from the surface. Also recovered from the site were 2 large brass bells (1 from surface and 1 from a burial).

**Blanks**

Two flint blanks (burial) and 1 red slate blank (surface) were recovered from the site.

**Blade weapons**

Blade weapons recovered from the site include: 1 unmodified rapier fragment, and 1 iron rapier handle guard.

**Bracelets**

Copper bracelets recovered at the site include: 3 complete copper wire bracelets (burial), 2 complete copper/brass wire bracelets (unprovenienced), 1 complete copper bracelet (burial), and one copper bracelet fragment (burial).

Iron bracelets recovered include: 6 complete iron bracelets from burial, 4 unprovenienced iron bracelets and 1 iron bracelet fragment(burial).

**Buttons, Buckles and Broaches**

Recovered from the site were: 1 copper/brass belt buckle (unprovenienced), 1 iron belt buckle (unprovenienced), and 1 copper/brass buckle (burial). Quantities of black glass "cossock" buttons have also been recovered from the site (Ward 1947b: 2; Follett n.d., p. 3; DeOrio 1978.)

**Chisels**

Two iron chisels were recovered from burials.

**Coins**

Three heavily-corroded French *liard* coins were recovered from a single burial (RMSC collection). The fourth coin, a well-preserved French *liard* coin dated 1657, is reported in the Cayuga Contact literature. "Inscription around portrait of Louis XIV. reads L. XIIII. ROY. DE. FR. ET. DE. NA. The other side of the coin reads LIARD DE FRANCE with a capital C (connotes St. LOP mint) and 3 Fluer-de le. Coin is twice perforated on opposite sides for use as a pendant, and was recovered from the surface by Miss Betty Mae Wright in the early 1950's" (ASCNYB 1952: 140).

**Combs**

Recovered from the site were 2 unprovenienced engraved cootie combs and 1 bone comb with a bird (partridge?) effigy design (burial). Also mentioned in the Cayuga Contact literature is a antler bone effigy comb which depicts two partidges facing each other (Skinner 1921: 80).

**Concretion "Lucky" stones**

One concretion "lucky" stone was recovered from the site.

**Containers**

All containers recovered at the site were made of either copper/brass or iron. Containers recovered include cooking vessels and storage containers.

The 10 cooking containers (copper/brass kettles) recovered were all from burials and include:1 small copper/brass kettle, 2 1/2 inch tall, 4 3/4 inch wide at rim, 1 small copper/brass kettle, 2 1/2

inch tall, 6 1/4 inch wide at rim, 1 small copper/brass kettle with iron bail, 3 inch tall, 5 inch wide at rim, 1 small copper/brass kettle, 3 inch tall, 6 inch wide at rim, 2 small copper kettle with iron bail, 3 inch tall, 6 3/4 inch wide at rim, 1 small copper/brass kettle, 3 inch tall, 7 1/2 inch wide at rim, 1 small copper/brass kettle, 3 inch tall, 9 inch wide at rim, 1 small copper kettle with 3 copper batches, 5 1/2 inch tall, 8 1/4 inch wide at rim, and 1 copper/brass kettle with iron bail and copper batches (5 inch tall, 9 1/2 inch wide at rim). Also recovered from the site were 1 copper/brass kettle rim section (unprovienced), 1 copper/brass patch (unprovenienced), 1 copper/brass kettle patch (surface), and 1 iron bail for copper/brass kettle (burial).

Storage containers recovered include iron and brass mirror boxes, copper/brass boxes, copper/brass furniture from wooden boxes and possible fragments of a burdon strap.

Mirror boxes recovered were all from burials and include: 1 brass mirror box lid, 1 mirror box glass, 1 large iron mirror box, 7 wooden mirror box liner fragments, 4 iron mirror box.

Also recovered from the site were: 1 copper/brass box with a decorated hinge lid, 1 copper/brass lock from a wooden box, 1 ornamental copper/brass strip, and a mount of copper/brass clips (burdon [sic] strap ?).

The Cayuga Contact literature also makes mention of a copper/brass kettle being removed from a single burial (Skinner 1921: 51).

**Corset hooks**

A mount of unprovienced iron corset hooks were recovered at the site.

**Crystals**

Three Herkimer diamonds (quartz crystals) were recovered from a burial.

**Debitage**

Recovered from the surface of the site were 37 pieces of cut copper/brass (RMSC), 4 iron fragment (RMSC), and 5 pieces of worked bone (author's collection). Also, 17 flints and 3 antler

handles have been reported from a single burial (Skinner 1921: 51).

**Faunal remains**

Faunal remains encountered at the site include examples of bear, deer, birds (different varieties), wolf/dog, turtle, and raccoon. All bear remains are from burial and include: 7 canines, 4 incisors, 1 maxillary, 2 mandibles and 1 bear claw core. Two unworked deer phalanxes cones were located on the surface of the site. Bird remains encountered all come from burials and include: 2 eagle claw cores, 2 bird beaks (possibly Heron), and 2 hawk claw cores. I wolf/dog incisor, 1 turtle long bone and 1 raccoon penis bone were recovered from burials. Six bear canines have also been reported to have been recovered from a single burial (Skinner 1921: 51).

**Finger rings**

All copper/brass finger rings in the RMSC collections are from burials and include: 1 stamped-embossed IHS design with an uncut band, 1 stamped-embossed Pieta with an uncut band, 1 stamped-embossed St. Roch with an uncut band, 1 stamped-embossed L - Heart with an uncut band, 4 engraved IHS with a 3 cut band, 1 engraved L - Heart with an uncut band, 4 engraved L - Hearts with a 3 cut band,1 engraved Clasp Hand with an uncut band,1 glass stone Inset with an uncut band, and 1 heavily corroded ring fragment.

Copper/brass finger rings, frequently called "Jesuit" for the Christian iconography depicted on many, are mentioned in the Cayuga Contact literature on a number of occasions. Sources noted include: "a quantity of Jesuit rings" (Skinner 1921: 51); "19 Jesuit rings" (Follett 1953: 48), "15 rings, of which 12 had cuts in the band, and 12 were of IHS design, were dug up" (Ward 1947: No. 3, 2), and "during spring of 1942 over fifty Jesuit rings were recovered (Follett n.d., p. 3)

**Fishing gear**

One iron fishhook, 1 iron hollowed shank harpoon, and 1 iron harpoon with small bilateral barbs were recovered from burials. One bone harpoon was also reported as being from a single burial (Skinner 1921: 51).

**Flaking tools**

Recovered from burials were 7 antler flaking tools.

**Hammers**

Recovered from a burial was one iron hammer (nail driving tool).

**Jew's harps**

One copper/brass jew's harp was recovered from a burial.

**Keys**

Three iron keys were recovered from burials.

**Knives and Scrapers**

Knives recovered are all made of iron, with all but one example being European-made. Long, pointed iron knives recovered are all European-made and include: 2 rat-tail knife blades (burial), 1 decorated rat-tail bone handled knife (burial),1 rat-tail knife with bone handle (unprovienced), 1 curved rat-tail knife, (burial), 1 flat-stock knife (unprovienced), 3 rat-tail knives with long, pointed blade (unprovienced), 3 rat-tail knives with long, pointed blades (burial), 2 curved rat-tail knives (unprovienced),and 1 curved flat-stock knife. Long, blunted iron knives recovered are all European-made and include:1 curved flat-stock knife (unprovienced), 1 rat-tail knife (unprovienced), 4 iron rat-tail knives (burial), and 1 curved rat-tail knife (burial). One short, pointed European-made iron rat-tail knife, 4 short, blunted iron rat-tail knives (2 unprovienced European-made knives, 1 grave-good European-made knife, 1 unprovienced American-made), 5 unmodified European-made iron clasp knives (burial),1 European-made iron rat-tail knife blade with long blade (burial), 1 European-made iron knife with short blade and perforated handle (burial), 1 European-made iron rat-tail knife with long blade and bone handle (burial), 3 iron rat-tail fragments (burial), 1 iron knife fragment (burial),1 iron knife bone handle (burial),1 decorated iron knife bone handled (burial), 2 iron rat-tail knife handle fragments, 1 European-made decorated rat-tail bone handled iron knife fragment (burial), and 1 European-made decorated rat-tail bone handled iron knife fragment (burial) were also recovered from

the site. Another iron knife, listed in the RMSC artifact catalog, was unavailable for analysis. The Cayuga Contact literature mentions that 1 iron knife with an antler handle along with 32 knives and edge tools were recovered from a single burial (Skinner 1921: 51).

Scrapers recovered were made of flint and iron. One flint scraper was recovered from surface, 1 flint scraper came from a refuse midden and 6 iron scrapers were recovered from burials.

**Ladles and spatulas**

One copper spatula was recovered from the surface. Two melting ladles are reported in the Cayuga Contact literature as being recovered from a single burial (Skinner 1921: 51).

**Lead Seals**

A single lead seal is listed in the RMSC artifact catalog, but was unavailable for examination. Also recovered from the site was a "silver letter seal with crossed arrows and a dolphin bearing the inscription M.K." (Adams 1888, in Follett 1946f: 4). These inscriptions, as interpreted by Monsignor Byrne, are identified as Christian iconography. "The dolphin, usually used with an anchor, is an old Christian symbol for hope, while the M.K. (probably M.R.) is an abbreviation for Marie (Mary).

**Magnifying glass**

A single magnifying glass with a bone holder is listed as being recovered from a burial (RMSC collection). Unfortunately, the item was not located for analysis.

**Navigational equipment**

An iron cartographic compass fragment was recovered from a burial.

**Nails**

Eight iron nails were recovered from a burial, while 1 iron nail was recovered from the surface.

**Organic**

A pointed wooden object and 2 fragments of animal fur attached to iron rust were recovered from burials.

**Paint**

Five chunks of graphite pigment, 1 bottle of hematite powder, 1 box of vermillon pigment, and 1 stone hematite paint "cup" were recovered from separate burials. One piece of black paint has also been reported as being recovered from a single burial (Skinner 1921: 51).

**Pipes**

Recovered from the site were: 2 Native pottery pipe stem fragments (burial), 1 pewter effigy pipe with long stem (burial), 1 long stemmed pewter pipe with human effigy (burial), 1 white ball clay "kaolin" EB pipe (refuse midden), 1 pewter pipe stem (refuse midden), 1 blowing mask effigy pottery pipe with short stem (burial), 1 complete pewter effigy platform pipe, 1 bear-effigy black clay pipe, and 2 complete extended elbow trumpet pottery ring pipes (burial). One iron smoker's companion was also recovered from a burial.

In the Cayuga Contact literature, 1 bear effigy pottery pipe, 1 long stemmed metal pipe, tobacco pouches, and 1 pottery pipe have been reported as being found at the site at the end of the 19th century (Skinner 1921: 101; Follett 1946f; Skinner 1921: 51).

**Projectile weapons**

Projectile weapons recovered from the site include a large quantity of muskets and musket parts, and a few projectile points.

Four complete muskets (lock plate types: 1 type V-C, 3 type VII, after Puype 1985:79), 2 musket barrels, 5 musket side plates, and 14 complete lock plates (1 type I, 2 type V-B, 3 type V-C, 1 type VI, 6 type VII, and 1 type IX; after Puype 1985: 79) were recovered from the site. Lock parts recovered from burials include: 7 pans, 2 vise jaws, 1 side lock screw, 2 mainsprings, 1 battery spring, 1 tumbler, 3 cocks, 8 batteries, 1 vice screw, and 1 sear. Also recovered from burials were: 3 iron musket triggers, 5 iron trigger guards, 1 copper/brass musket trigger guard, 1 copper serpentine

musket ornament, 3 wooden ram rod section, 5 copper/brass ramrod clip, 4 copper/brass musket stock clip, 1 wood ram rod fragment and copper ramrod holder, 1 musket copper/brass gunstock strip, 1 fore end tip of musket stock (pine or cedar)1 musket stock wood fragment with copper/brass band, 1 copper/brass pin from musket stock, and 1 musket rear sight. Gunflints recovered include 14 European gun flints, and 9 native gunflints.

Unprovenienced material from the site include the following lock parts: 3 lock side screws, 1 doglock cock, 1 *snaphaunce* cock, 1 cock screw, 2 cock, 1 vise jaw, unfinished with long tang, 1 vise jaw, 3 batteries, 2 battery spring, 1 mainspring, 3 pans, 1 tumbler, 3 native gunflints, 3 brass musket butt plates,1 iron butt plate, 6 copper/brass ramrod clips and 1 pistol butt plate. Two European gun flints were also recovered from the surface of the site.

For muskets to be used, a number of other parts are needed to service these pieces. At the Mead Site, not only were muskets and their corresponding parts recovered, but also were found bore cleaners, powder measures, musket balls, and bullet molds. Recovered from burials were 2 musket barrel wormers and 2 antler powder horn measures. Materials pertaining to lead musket balls from burials includes: 37 lead musket balls, 1 chewed lead musket ball, 2 fired lead musket balls and 1 split lead musket ball, a quantity of lead swan shot, and lead swan shot waste. Lead, presumingly for making musket balls was recovered from burials and includes: a section of lead bar and a piece of lead tube. Unprovenienced lead musket balls and lead scrap for musket ball manufacturing include: 1 musket bullet mold, 36 lead musket balls, 1 partially poured lead musket ball, 3 fired lead musket balls, 2 hand shaped lead musket balls, 1 chewed lead musket ball, and 17 pieces of lead musket scrap (lead spruce).

A single burial excavated in 1888 produced 1 gun, 2 gunlocks with flints, 2 trigger guards, 2 (European) gunflints, 21 Native gunflints, a quantity of gun powder, 6 bullets, 4 pairs of bullet molds, 3 bars of lead, 1 gun cleaner, and 1 wormer (Skinner 1921: 51). Also identified are: 1 doglock cock, 2 cocks, 3 Native gun flints, 1 mainspring, 1 frizzen, 1 frizzen spring and 1 iron trigger as being from the site (Schoff 1955: 80). Powder horns have also been reported as being recovered from burials (Follett 1946, no. 8).

Projectile points recovered from the site all come from burials and include: 27 copper/brass projectile points, 1 iron spear point and a single antler conical projectile point.

**Rattles**

All rattles recovered at the site are from burials and include: 1 turtle shell rattle section with 2 rattling stones, 3 turtle shell rattle sections, and 1 copper rattle with glass bead as rattling stones.

**Religious items**

One copper/brass *corpus* figure was recovered from rubbish by Kenneth Wright, Rock collection, RMSC. The recovery of a broken portion of a copper/ brass cross is reported in the Cayuga Contact literature (Follett n.d., p. 3).

Also reported in the literature is the recovery of a fragment of a small copper/brass picture frame "of ancient design". This item is interpreted by Byrne and Follett as being "part of an altar service" (Follett n.d., p. 3).

**Rings**

One hand-wrought iron ring, 1 iron wire ring and 1 iron "neck" ring were recovered from different burials.

**Rubbing stones**

Five rubbing stones are provenienced to one burial (Skinner 1921: 51).

**Scissors and Shears**

Three pairs of iron scissors and 1 pair of large iron shears were recovered from burials. Two pairs of shears and 2 large shears have been reported as being found in a single burial (Skinner 1921: 51).

**Saws and Chisels**

One iron saw, remade from a curved iron rat-tail knife, was recovered from a burial. Also recovered from burials were 2 iron chisels.

**Spoons and Ladles**

Recovered from burial was one long handled antler ladle.

**Strike-a-lights**

Of the 9 strike a lights recovered, 7 are provenienced (burial). A single steel and 2 flints have also been reported (Skinner 1921: 51).

**Thimbles**

Recovered from burials were 5 copper/brass thimbles.

**Whetstones**

Ten whetstones were recovered from burial and 1 sandstone whetstone was recovered from the surface.

**Window Glass and Mirrors**

One complete glass window (mirror?) pane, 17 cm by 12 cm, was recovered burial. One broken window glass fragment was also recovered from a burial. A single piece of mica, recovered from a burial, was reported at the site (Skinner 1921: 51).

## APPENDIX J

### THE LAMB SITE

The Lamb site, located on the property of Henry Lamb (c. 1921), is a single occupation site, lot 89, in the Town of Fleming, Cayuga County. This site, also referred to as the Fleming Site and East Cayuga (Follett n.d., chpt. 7), has been subject to such extensive looting by collectors and commercial excavators that "nothing is now visible" (Follett 1946f: 3). The only detailed information about the site available in the Cayuga Contact literature describes "a small cemetery of half an acre" (Beauchamp 1900).

Given the site's close proximity to the Mead Farm site (less than a mile away), it may be one of the three sites described by Wentworth Greenhalgh in his account of the Cayuga in 1677 (Greenhalgh 1677, in O'Callaghan 1850: 16). The existing references only make mention of a cemetery, and unfortunately, the artifact assemblage used to substantiate Skinner's claim that this site was, "probably a Jesuit mission" (Skinner 1921:49) is no longer available for study.

Excavators who are known to have worked on the site include: W.W. Adams in the 1880s or 1890s, as well as Arthur C. Parker and Earl Mann in 1921 (Follett 1946f: 6-7).

CEMETERIES

A single cemetery, discovered in the course of road construction, was excavated by Arthur Parker and Earl Mann in 1921. During the course of excavation, it became apparent that the site was excavated some thirty years earlier by W.W. Adams (Follett 1946f). Only graves in the line of construction were exposed. All information about Parker's and Mann's excavations comes from Follett (1946f: 6-7).

B-1 double adult burial. Artifacts recovered include: 2 bent gun barrels and 1 broken copper/brass kettle. Burial opened by road construction men.

B-2 no data, only mentioned as "recently disturbed". Burial opened by road construction men.

B-3 triple burial, 2 adults and 1 child. Artifacts recovered include: glass beads, crescents, fragments of kettles, broken brass and iron bracelets, 5 Jesuit rings, scraps of iron and brass, 2 iron boxes 1 and 1/2 inches in diameter contained some hardened substance. Salvage excavation conducted by Arthur C. Parker.

B-4 double adult burial. Artifacts recovered include: "some glass beads, half of lower hinge of box shell rattle, 1 kettle, wooden ladles, another with carved human female figure, 1 small kettle with bottom missing, 1 complete small kettle, 10 or 12 iron bracelets rusted together, 1 copper/brass bracelet, 2600 glass beads, over 1000 wampum, 13 perfect crescents with 2 perforations, 9 long tubular beads of shell between 4 and 6 1/2 inches long, a quantity of small brass beads oxidized together, 2 lead musket balls, ramrod clip or holder, 2 gun barrels, 1 trigger guard, 1 lock, 1 trade axe, and 3 small pipe stone beads". Salvage excavation conducted by Arthur C. Parker.

B-5 "about the same class of material as B-4, but not so abundant". Salvage excavation conducted by Arthur C. Parker.

B-6 "about the same class of material as B-4, but not so abundant". Salvage excavation conducted by Arthur C. Parker.

B-7 single small child burial. Salvage excavation conducted by Earl Mann.

B-8 disturbed burial, probably by W.W. Adams c. 1890. Salvage excavation conducted by Earl Mann.

B-9 disturbed burial, probably by W.W. Adams c. 1890. Salvage excavation conducted by Earl Mann.

B-10 recently disturbed burial. Salvage excavation conducted by Earl Mann.

B-11 recently disturbed burial. Salvage excavation conducted by Earl Mann.

B-12 disturbed burial, probably by W.W. Adams c. 1890. Salvage excavation conducted by Earl Mann.

B-13 disturbed burial, probably by W.W. Adams c. 1890. Salvage excavation conducted by Earl Mann.

B-14 disturbed burial, probably by W.W. Adams c. 1890. Salvage excavation conducted by Earl Mann.

B-15 disturbed burial, probably by W.W. Adams c. 1890. Salvage excavation conducted by Earl Mann.

## ARTIFACT ASSEMBLAGE

Since no artifacts were available for analysis, those which are listed in the Artifact Assemblage were taken by Follett from Mann's notes of Parker's 1921 dig (Follett 1946).

### Axes

One European trade axe was mentioned as being recovered from a burial.

### Beads and Pendants

Beads and pendants recovered include: 2600 European glass beads, over 1000 wampum, 13 perfect crescent pendants with 2 hole perforations, 9 long tubular shell beads, between 4 and 6 inches long, 3 small pipe stone beads, and a quantity of copper/brass beads fused together.

**Bracelets**

Bracelets recovered include: 10 or 12 iron bracelets rusted together, 1 complete copper/brass bracelet, and an unspecified number of broken copper/brass and iron bracelets.

**Containers**

Containers mentioned include: 2 small copper/brass kettles, 2 copper/ brass kettles , fragments of kettles, and two 1 and 1/2 inch wide iron boxes.

**Debitage**

Debitage recovered included scraps of iron and copper/brass.

**Finger rings**

Five Jesuit rings are mentioned as being identified at the site.

**Spoons and Ladles**

Recovered from a burial were a number of wooden ladles, one of which had a carved human female figurine handle.

**Projectile Weapons**

A number of firearm fragments was recovered from the site. These include: 2 bent musket barrels, 2 musket barrels, 1 ramrod clip, 1 trigger guard, 1 gun lock, and 2 lead musket balls.

**Rattles**

One turtle box shell rattle was found at the site.

## APPENDIX K

### THE RENE MENARD BRIDGE HILLTOP SITE

The Rene Menard Bridge Hilltop Site (RMBH) is a multi-occupational site in the Town of Aurelius, Cayuga County. Located on the hilltop of Traver's farm (periodically referred to as the Traver's Farm or Freebridge site), the site occupies the strategic position of being "the only place within a radius of several miles where the great Montezuma swamp could be crossed" (Follett 1949:55). Given the site's important location, it is not surprising the amount of materials found (at least three different Algonquin occupations have been identified, along with three periods of prehistoric Iroquois and one colonial occupation; Follett 1949: 55).

The 17th century occupation is illustrated by a small concentration of finds recovered from atop the knoll. The artifacts recovered are similar to those found at the Mead Farm Site, supporting the claim that the RMBHS is the location of the Jesuit station of St. Stephen mentioned in the **JR** of 1670 and 1672 (Follett 1946f: 3). All information about this site, accept for the description of four finger rings, is taken from the published Cayuga Contact literature.

VILLAGE AREA

"Thichero (RMBHS) was a small hamlet which served as a outpost or a trading center at the same time the main body of the Cayuga was located at" the Mead Farm (Ward 1949: 22). No other information about the settlement of the site is known.

BURIALS

Very little burial data is available about the site. While excavations were conducted for St. Bernard's Seminary Museum at the site in 1935 and in 1961 by Harry Schoff, no information is known to have survived the closing of the Seminary. While the seven skeletal remains noted in the RMSC physical anthropology records (AP 550 to AP 556) as being from the site are no longer available for an analysis, a description of an isolated Cayuga Contact burial dug

by Carl Armbruster and Herbert Bigford is given below.

**Individual burials**

A/B-1 isolated extended burial. Artifacts recovered include: a musket with an extra long barrel, gun flints, iron knives, harpoons, a bone powder measure, and thousands of glass seed beads. Burial was dug by Carl Armbruster and Herbert Bigford in 1948 (Ward 1951:108).

ARTIFACT ASSEMBLAGE

Since only four finger rings (Robert Hiler collection) and a sting of beads (CMH) were available for analysis, the majority of artifacts described below come from the Ward collection and appear as mentioned in the Cayuga Contact literature. Information from the St. Bernard's Seminary Museum collection are no longer available for study.

**Awls and Needles**

One copper/brass awl (BASCNY 1953: 42) and 1 copper/brass needle (Ward 1952: 103), both from the Ward collection, have been recovered from the site.

**Beads and Pendants**

The string of beads recovered from the site includes items made of bone, shell, copper/brass and glass. Objects recovered include: 1 bone bead, 56 white wampum, 1 shell bead, 2 shell pendants, 1 copper/brass bangle, 1 Black Round, 1 Black Round with 4 White Stripes, 2 French Horizon Blue Rounds, 70 Red Rounds, 17 Black Tubes, 1 Black Tube with 4 Red Stripes, 4 Union Blue Tubes, 64 Red tubes, 3 Gold Tubes, 5 Clear White Tubes, 3 Union Blue Octagonals, 1 Gold Octagonal, and 1 Clear Octagonal.

Also mentioned in the Cayuga Contact literature is the recovery of a bone loon pendant (BASCNY 1953: 42).

**Blades**

A copper/brass handguard from dagger or small sword is reported as being recovered from the site (BASCNY 1949: 83).

**Buttons**

A single black glass "cassock" frock button, as well as "buttons" have been reported as being found (Ward 1949: 22; Ward 1949: 77).

**Coins**

A single perforated French *liard* coin with likeness of Louis 14th and dated 1659 has been recovered from the site (Ward 1949: 22).

**Containers**

Containers recovered from the site include a complete copper/brass kettle (RMSC site file) and "1 pot ear" (presumingly an ear from a copper/brass kettle) (BASCNY, 1953: 106).

**Debitage**

"Brass parts" have been reported being recovered (Ward 1949: 77).

**Finger rings**

Copper/brass finger rings recovered include: 1 IHS ring with a three cut band (Ward 1949:22; BASCNY 1953: 42), 4 engraved L-Hearts (Bob Hiler collection, viewed Dec. 1986), and 1 X plus Flag (symbol for Christ) with a three cut band (Ward 1949:22; BASCNY 1953: 42). The single corroded dull metallic wedding ring band recovered may date to a later occupation (Ward 1949: 77).

**Fishing gear**

A single iron harpoon has been reported (Ward 1949: 89).

**Jew's harps**

Recovered from the site was one small jew's harp with the letter R engraved or stamped on the upper band (Ward 1949: 22; BASCNY 1953: 42).

**Nails**

One rolled copper nail was recovered (Ward 1952: 103).

**Pipes**

A single pewter pipe stem was recovered from the site (Ward 1949: 89).

**Projectile weapons**

Firearm parts (Ward 1949: 77), as well as one musket barrel (RMSC site file), a single Iroquois triangular point (Ward 1951: 74), and 1 three inch long perforated copper/brass conical point (Ward 1949: 89) have been identified as coming from the site. Other copper/brass points (minimum number six, maximum number is eleven) have also been reported (6 copper/brass points, Ward 1949: 89; 2 copper/brass projectile points, BASCNY 1953: 42; and 3 copper/brass projectile points, BASCNY 1953: 106).

**Religious items, European**

A corroded copper/brass disc-shaped religious medal was recovered from the site (Ward 1951:74)

## APPENDIX L

### THE YOUNG FARM SITE

The Young Farm Site, a multi-occupational site, is located on the south bank of Great Gully, lot 113, Ledyard township, Scipio village, Cayuga County. The property was originally owned by Mr. Dillingham and then was sold to William H. Young, who passed it on to his son, Ernest Young. The property was later acquired by Stanley Chase, a grandson of William Young.

The village area occupies 5 acres of level land on the south bank of Great Gully and is denoted by a dark, humus soil. In addition to the village area, five Iroquois burial plots, an early 19th century colonial village settlement, a mid-19th century agricultural "ring" and at least one Algonquin cemetery have been identified on the property (Skinner 1921, Follett 1929, Follett 1946h, Follett 1947a, Selden 1956: 68-69). Also, a small refuse dump has been located on the extreme southwest corner of the village area and "copper/brass kettles are plowed up at this location periodically" (Skinner 1921).

This site, like so many in the area, has been vandalized to a great extent. Unlike so many other Cayuga Contact sites, however, extensive notes from burial excavations are available for analysis. The earliest scientific excavations were carried out at the site by Alanson Skinner in 1916 and 1919 for the Heye Foundation, Museum of the American Indian. In 1928, during preparations for the 150 Year Anniversary of the Sullivan Campaign of 1779, excavations were carried out " in the road bank about fifty feet west of the residence door," and the "graves were exposed *in situ* for visitors to examine" (Follett 1947:1). During the course of road work in the spring of 1929, salvage excavations were carried out on the site by Harrison Follett for the Rochester Municipal Museum (RMSC). Between 29 August and 6 September 1939 Sans Titus excavated more burials for the Museum of the American Indian, Heye Foundation. The Archaeological Society of Central New York conducted excavations on 13 September 1947 in an attempt to remove a burial for display at the Cayuga Museum of History and Art (CMH). On 3-4 April 1948, Kenneth Wright excavated a few burials

for the CMH. The last known scientific excavations at the site were carried out by Newton Farwell on 3 October 1948, at which time he excavated a single burial.

VILLAGE AREA

"The village area of the site is denoted by a dark soil which covers four or five acres" (Follett 1946h: 2). Little else can be added to Follett's statement at this time, since there is no record of any excavations being carried out on the village component.

FEATURES

**Fire Pits**

Fpt-1 A deep fire pit was discovered near grave S-3. The pit was oval in shape, 6 feet long, 3 feet broad, and 4 feet deep. Objects recovered include: charcoal, ashes, burnt bone, a few plain sherds, and a white ball clay trade pipe bowl fragment (Skinner 1921: 61).

**Fireplaces**

Fpl-1 a fireplace containing a deep bed of red and white ash was excavated. Artifacts recovered include: European-made artifacts as well as an American-made flat, centrally perforated copper/brass needle (Skinner 1921: 66).

**Cesspools**

Cs-1 A colonial cesspool, possibly attributed to a cluster of early 19th century settlers' cabins and corresponding grist mill, was found in cemetery 1. This cesspool was "cylindrical, stone-lined vault," and contained a quantity of Colonial relics, including an English halfpenny dated 1804 (Skinner 1921: 66).

CEMETERIES

As of the mid 1940's five burial plots were identified, including one Algonquin and four Contact (even though Cemetery 4 is probably part of Cemetery 3, they are kept separate). The three burials not identified to a particular cemetery are listed as unprovenienced.

**Cemetery 1**

Cemetery 1 was first subject to partial pillaging before being excavated by Alanson Skinner.

G-1 skeleton with copper/brass kettle, gun, and a native clay pipe. Burial dug by Grifford (Skinner 1921: 57).

G-2 single burial, copper/brass kettle, pottery effigy pipe, a crucifix, some Jesuit rings, and a green blanket over the bones. Dug by Grifford (Skinner 1921: 57)

Sk-1 single flexed skeleton of young male, on left side, headed west, facing north. Artifacts include iron bullet-mold of small calibre, part of metal knife blade, piece of a native clay pipe of line and dot pattern, 4 engraved bone tubes, remains of a flat, narrow wooden object (nearly six foot in length), a small pile of round or barrel shaped red glass trade beads, one tiny blue polychromed "star" bead, and fragments of a 2 or 3 inch long copper/brass cylindrical object. Dug by Skinner (Skinner 1921: 58-59).

Sk-2 disturbed burial, probably representing six individuals. Artifacts recovered include: a short and narrow wampum belt, 1 iron trade axe, 1 gobular green glass bead, some very tiny seed beads, and 13 tubular catlinite beads. Burial dug by Skinner (Skinner 1921: 60).

Sk-3 single tightly flexed burial of old man, on left side, headed east and facing south. Bones surrounded by charcoal and many burnt stones. Dug by Skinner (Skinner 1921: 61).

Sk-4 single tightly flexed burial of old man, on left side, headed west, facing north. Single limestone bolder of 50 pounds weight lay upon the shoulders. Burial dug by Skinner (Skinner 1921:61).

Sk-5 single burial of woman, length on its back [sic], head to west, facing left over left shoulder to north. Right arm

over abdomen, left arm folded under the chin. Artifact recovered include: a decayed black substance, 1 engraved effigy comb with two "panthers" rampant (climbing on their own tails, and facing each other with tongues joined), 1 trumpet earthenware pipe bowl with incised lines (American made), 1 human femur which had been sawed off with a stone knife, and a quart of bones and fish scales. Dug by Skinner (Skinner 1921: 62).

Sk-6 single flexed burial of aged woman, lying on left side, facing north. Artifacts recovered include: a copper/brass kettle, a few short deerskin thongs, and a few bark fragments (probably elm). Burial dug by Skinner (Skinner 1921: 63).

Sk-7 single skeleton of infant, extended on its back, heading west. Child was flanked by 2 flintlock muskets and above the head was an iron cutlass with a iron basket hilt handguard. Other artifact recovered include: a few black round black beads, 2 long cylindrical shell beads, and a shell necklace of seven shell runtees and 2 long, tubular shell beads. Dug by Skinner (Skinner 1921: 63).

Sk-8 double burial. Single flexed burial of toothless old woman, lying on right side, heading west, facing north. Before her face were bones of an infant, extended on its back, heading west. One iron knife with bone or antler handle was recovered beside the child. Dug by Skinner (Skinner 1921: 64).

Sk-9 disturbed burial of older individual, probably female. Few traces of vermillion paint noted. Burial dug by Skinner (Skinner 1921: 64).

Sk-10 looted burial, containing a few bones stained with copper/ brass and iron. Dug by Skinner (Skinner 1921: 65).

Sk-11 looted burial, with traces of copper/brass and iron staining. Fragments of a wooden spoon or bowl recovered, a carved bone trinket, and a few "seed-incised pottery sherds" were recovered. Burial dug by Skinner (Skinner 1921: 65).

Sk-12 disturbed single bundle burial of aged individual. Artifacts recovered include: several plain bone tubes and "a large piece of the bottom of a thick, colonial glass jar or bottle". Dug by Skinner (Skinner 1921: 65).

"At least six other skeletons had been recently dug up and their bones were scattered. Traces of vermilion and green paint, copper and brass stained bones, bits of copper/brass kettles, fragments of white ball clay trade pipes and china were uncovered" (Skinner 1921: 66).

**Cemetery 2**

Cemetery 2 is located 200 yards to the east of Cemetery 1 on the brink of the ravine. The 7 burials excavated by Young " were all flexed and did not contain any objects" (Skinner 1921: 58). Follett identified these burials as prehistoric and "probably Algonquin" (Follett 1946: vol. 1, no. 9). These burials are most probably related with the pre-historic settlement at Great Gully mentioned by Skinner (1921: 44-45).

**Cemetery 3**

While this cemetery is first identified by Skinner as Cemetery 3 (Skinner 1921: 58), it is later re-numbered as Cemetery 2 (1921: 66). In later Cayuga Contact literature, these burials are referred to as Cemetery 3 (Follett 1929 excavation notes).

Y-1 single flexed burial of adult male, headed west. Artifacts recovered include: a single copper/brass kettle, some copper fishhooks, red paint, some iron implements, gun-locks, iron hide scrapers, 1 trumpet pottery pipe with incised lines on bowl, and 1 trumpet pipe bowl with a

human effigy in bowl facing smoker. Dug by Young (Skinner 1921: 66-67).

S/Y-1 single flexed burial of old person, probably female, on her back, headed west, facing north, with arms folded across the trunk. Artifacts recovered include: 1 small copper/ brass kettle, a wooden spoon fragment, 1 tiny round green glass bead, and a clay trumpet bowl fragment. Dug by Skinner (Skinner 1921: 67-68).

Further excavation in the area produced no indication of further burials (Skinner 1921: 68).

**Cemetery 4**

Cemetery 4 is "located south and is continuous thereto" with Cemetery 3 (Follett 1929: unpublished field notes). While it is possible to integrate the burials from Cemetery 3 and Cemetery 4 to a single cemetery, for some reason they were kept separate by Follett in the course of his excavations. While it is not certain why they were not combined, they will be continued to be kept seperate.

The two accounts of these excavations by Follett (RMSC site file and 1947g BASCNY) are contradictory. The BASCNY lists these excavations as 1928, while the RMSC site file lists them as 1929. There are differences in both the number of graves recovered, as well as the types of articles removed. The mention of two unique artifacts in both sources (host container, Roman coin), however, suggests that only one set of excavations occurred. In the 1947 article Follett mentions that the burials were left exposed in 1928 for tourists to examine. The 1929 excavations appear to have been part of a contract excavation and it may be possible that the burials were first excavated in 1928 for the Cayuga Museum, and later were re-excavated for the benefit of the Rochester Museum. In any event, the recovery of host box and a Roman coin from both the 1928 and 1929 excavations, the lack of mention of the 1928 excavation in the 1929 site report and the absence of data from the 1929 dig in the 1947 description of the Young site suggest that only one source

should be used. The field notes presented below come from the RMSC unpublished 1929 excavation report, since they are more extensive than the 1947 reference (Follett 1947g: 2).

F/S-1 disturbed single adult male burial. Artifacts recovered include a section of grave bark lining and a small piece of thin iron kettle or pail. Burial dug by Follett and Selden (Follett 1929: 2).

F/S-2a disturbed double burials. Single extended burial adult and infant. Artifacts recovered include: octagonal iron box (2 1/2 inches in diameter), 1 small fragmentary bone comb, 1 broken effigy bone comb with engrave human and otter images, 2 metal buttons, 1 broken round glass bead, and 1 iron case knife with bone handle Dug by Follett and Selden (Follett 1929: 3).

F/S-2b single extended adult male burial, head west, lying on left side. Artifacts recovered include: an iron hide scraping implement, 1 decomposed clam shell, charcoal, 1 small iron awl, a small round iron implement with chisel edge, and 4 flat copper/brass needles. Burial dug by Follett and Selden (Follett 1929: 3).

F/S-3 single extended young burial, headed west. Artifacts recovered include: 15 small glass beads, 1 iron stain, and 2 pieces of window glass (1 piece rounded upon one edge, indicating use as a scraper). Dug by Follett and Selden (Follett 1929: 3-4).

F/S-4 single extended burial of probable adult male, northwest heading. One oval shaped copper/brass host container, 3 1/2 inches long, 2 inches wide was recovered from the burial. The face side of the cover is stamped from behind, producing a figure of a large heart surrounded by 2 doves. Also, etched onto the lid is the phrase ***Cuique Summe*** . Other artifacts recovered include: a large quantity of dark

red paint, 1 extended elbo pipe with engraved coil decorations, 1 hand wrought iron spike, 1 white ball clay pipe stem fragment, 3 hand wrought iron nails, 2 bone projectile points, bark fragments, and a copper/brass bracelet with beaver hair and 58 small rolled copper/brass danglers. Burial dug by Follett and Selden (Follett 1929: 4).

F/S-5 single extended burial, probably young female, headed north. Artifacts recovered include string of colored glass beads and bark fragments. Dug by Follett and Selden (Follett 1929: 5).

F/S-6 3 extended burials, heading northwest. Single extended burial of adult female in center, and 1 extended youth interments on each side of her. Artifacts recovered include: string of colored glass beads, 4 small shell runtees, 1 skull pendant, 1 human effigy bone comb, 1 large copper/brass kettle, bark fragments, 1 small copper/brass kettle, squash seeds, 1 rim of a wooden dish, 1 large copper/brass spoon, 1 pair of scissors, a small glass bead, 1 gun lock, trigger guard, and a large bone handled jack knife. Burial dug by Follett and Selden (Follett 1929: 5).

F/S-7 disturbed single child burial. Artifacts recovered include: 2 metal buttons, 3 bone tubular beads, 5 small glass beads and bark fragments. Dug by Follett and Selden (Follett 1929: 6).

F/S-8 disturbed double flexed burial. Artifacts recovered include: a pottery pipe bowl sherd, 1 bear effigy comb (bone), 2 large iron nails, 1 bone effigy comb (2 Europeans on horse back), 58 small colored glass beads of varying sizes, 4 metal buttons, and 1 shell bead. Dug by Follett and Selden (Follett 1929: 6).

F/S-9a disturbed burial, probably multiple. Only remaining indication of burial is a decomposed rib bone fragment. Burial examined by Follett and Selden (Follett 1929: 8).

F/S-9b disarticulated multiple burial; 2 adults and 2 children (1 aged to be 5-7 years old, the other infant). Artifacts recovered include: 1 native black clay extended elbow pipe with engraved coil decorations, 4 iron nails, and copper/ brass soil staining. Dug by Follett and Selden (Follett 1929: 8).

F/S-10 multiple burial of 12 individuals. Not an ossuary, since bodies were placed sided by side. It is, however, a mass burial site. Bones of 5 adults and 8 children represented. Artifacts recovered include: 2 large copper/brass kettles, 1 small copper/brass kettle, hickory nut shucks, berry seeds, 1 small white glass bead, 1 iron awl, 2 gun barrels, 1 iron trigger guard, and 1 small looking glass. Burial dug by Follett and Selden (Follett 1929:10).

F/S-11 disturbed multiple burial which included: the remains of a single young adult, a disturbed double burial of 2 young adult males, headed west, 1 disturbed extended young adult burial, fragments of infant or young adult burial and small fragments of adult crania. Artifacts recovered include: I Roman coin, small chunk of hematite, earthenware clay ball, large copper/brass button with beaver hair attached, 1 long red tubular glass bead, 2 small glass beads, 2 iron nails, a horn spoon and a small unknown iron implement. Dug by Follett and Selden (Follett 1929: 12-13).

Cemetery 4 continues to the east in the front lawn and possibly to the southwest (Follett 1929: field notes). Two other burials from the front lawn include:

W-1 four disturbed flexed adolescent burials. Artifacts recovered include: 2 Venetian glass beads, 1 iron knife blade, a portion of an iron spoon, 1 iron awl, 1 metal button and some perforated copper/ brass points. Grave excavated by Charles Wray (Follett 1947: 70/71).

S-2 disturbed multiple burial. At bottom of pit were 2 fully extended adult skeletons, upon which 3 adolescent flexed burials lay. All five individuals were buried in a box, as indicated by several hand wrought nails with adhering wood. Artifacts recovered include: 1 effigy antler comb, 6 round glass beads, 1 iron knife blade, and 1 shell runtee. Grave excavated by Schoff (Follett 1947: 70/71).

**Cemetery 5**

A fifth cemetery, Cemetery 5, was excavated in 1939 by W. F. Stiles for The Museum of the American Indian, Heye Foundation. Burials are characterized as "a lot of bodies were buried in boxes" (Stilles field notes; in Follett1946, 9).

St-1 double extended burial, headed west. Child on chest of adult, probably female. Artifacts recovered include 10 copper/brass projectile points (6 with wooden shafts attached), 1 iron awl (2 1/2 inches long) and berry seeds. Dug by Stiles (Follett 1946h, 10: 5-6.

St-2 triple extended burial, headed west. Adult on south side, child and infant on north side. Child's head on line with adult, infant at feet of child. Artifacts recovered include: 1 broken Jesuit ring, berry seeds, 1 iron knife, some glass trade beads, 1 antler flaking tool, 1 small iron tomahawk, 1 small Indian pipe. Left shinbone of adult had been broken and rehealed. Dug by Stiles (Follett 1946,10: 6).

St-3 flexed double burial, headed west. Child on south side of adult. No artifacts recovered. Dug by Stiles (Follett 1946h: 6).

St-4 single adult flexed burial, probably male, headed west by northwest, facing north. Artifacts recovered include: 2 iron grub hoes, a copper/brass kettle, 1 iron knife with antler handle, turtle shell with serrated edges, 1 human effigy pottery pipe, fragments of a wooden handle, fabric

fragments, 1 animal effigy head fragment, bark fragments, berry seeds, pumpkin seeds, sunflower seeds, some gunflints, and 1 bird effigy antler comb. Burial dug by Stiles (Follett 1946h: 6).

St-6 multiple burial, four bodies, two boxes. Each box contained one child extended and headed north. Single adult burial was flexed, headed west, with copper/brass European effigy pipe. Dug by Stiles (Follett 1946h: 6).

St-9 single adult flexed burial, headed west. Two copper/brass rings and 1 iron knife were recovered from the burial. Burial dug by Stiles (Follett 1946h: 6).

St-10 disturbed single extended adult burial, headed west. Artifacts recovered include: 1 broken iron knife, 1 pair of scissors, 2 iron awls, 1 copper/brass jingler. Dug by Stiles (Follett 1946h: 6).

St-11 single adult burial, headed east. No artifacts were recovered. Burial dug by Stiles (Follett 1946h: 6).

St-12 single young adult female extended burial, headed west, facing north. Artifacts recovered include: a white ball clay pipe, 1 iron knife, a quantity of copper/brass arrow points wrapped in bark, and a small unidentified pewter fragment. Dug by Stiles (Follett 1946h: 6).

St-13 single adult flexed female burial, headed west, facing south. A broken copper/brass kettle contained seeds was the only artifact recovered. Dug by Stiles (Follett 1946h: 7).

Testing on 30 August 1939 located seven disturbed burials. No artifacts were reported. Further testing of 31 August located eight disturbed burials with the following artifacts being recovered: 2 iron knives, 1 broken axe, 1 file, and 1 broken pair of scissors (Follett 1946h: 6).

**Unprovenienced burials**

Unprovenienced burials consist of individual burials, or parts of which, are identified as burials from the Young Farm Site, but cannot be identified to a particular cemetery.

Far-1 double burial, single adult made, flexed, headed west. Adolescent female, about 10 years old, extended. Artifacts recovered include: 1 complete musket with barrel 52 inches long, fragments of walnut stock, and a fire lock, 1 broken iron knife blade, 1 fire making tool, 3 Native gun flints, 1 copper/brass chopper/digging tool made from kettle bottom, a quantity of fragile black seed, a flat brass needle, 1 gun flint and a second fire lock. Barrel and firelocks, "by references to authority on guns as to date of manufacture, it was found that this type was made between 1656 and 1700" Dug by Newton Farwell on 3 October 1948 (Follett 1948: 51-52).

B-1 lists 3 artifacts, a copper/brass needle, 1 steel harpoon, and 1 flintlock (probably a type V-c), as "unusual artifacts recovered from burial, Young Farm, 3-4 April 1948" (BASCNY 1948: 28).

Y-7 group of artifacts from the Young collection (CMH) are identified as "Burial 7". Presently, item are glued to a turtle shell fragment and include: 1 bird skull, wampum, human insicors, bear canines, dog/wolf incisors, a bird claw, 2 black seed beads, and porcupine 12 quills (Young collection, CMH).

## ARTIFACT ASSEMBLAGE

The few artifacts available for analysis came from the Cayuga Museum, MAI, and RMSC collections. As usual, items mentioned in the scattered literary sources, will also be included. All artifacts described below are individually provenanced to their present location.

**Agricultural tools**

A European-made iron hoe and an iron digging stick, made from a bent musket barrel, were recovered from the site (CMH). Follett reports the recovery of a copper/brass chopper/digging tool made from a kettle bottom (1948: 51-52).

**Awls and Needles**

Two bone awls (CMH), 1 iron awl (CMH), and 2 iron awls (burial, RMSC) have been recovered from the site. Also recovered were 4 copper/brass needles (burial, RMSC), and 1 complete iron needle (burial, CMH). An antler awl was reported to have been recovered from a test pit (Follett 1946, 10).

**Axes and Celts**

One iron axe was recovered from the site (CMH). In the literature, Skinner (1921: plate XVII) illustrates two stone celts. Iron axes are frequently reported to have been recovered at the site (Skinner 1921, Follett 1946, DeOrio 1978).

**Beads and Pendants**

Beads and pendants recovered include objects made from bone, shell, copper/brass, red shale/catlinite, and glass. Objects made from shell from burials in the RMSC collections include: 4 fat loon runtees, 1 ox-shaped shell pendant,1 large 3 holed shell gorget, 1 shell pendant, and 1 shell tube. Shell beads and pendants from the CMH collections are unprovenienced and include:1 loon rundee, 5 white wampum, 1 tubular shell bead, 8 white tubular shell beads, 13 white shell pendants, 1 purple shell pendant, 32 shell tubes and 2 shell discodials. Four shell pendants, in the shape of fish, 7 cm by 1.5 cm, and 1 bird shaped pendant were examined in the MAI collections. Copper/brass artifacts recovered include: 1 copper/brass pendant (CMH), and 45 copper/ brass bangles (42 RMSC, 2 CMH, 1 MAI). The 2 gray slate pendants and the 2 gray slate gorgets are unprovenienced and are from the CMH. Bone beads recovered are all from burials and include: 1 large bone tube bead (RMSC), 2 bone tube beads (RMSC) and 1 flat bone bead (RMSC). Red Shale/catlinite objects recovered include: 15 red shale/catlinite tubes (8 CMH, 6 MAI, 1 RMSC), 18 red shale/catlinite pendants (12

CMH, 6 RMSC), and 3 red shale/catlinite beads (CMH).

Round Glass Beads (Rounds) recovered include: 77 Black Rounds, (45 CMH, 31 RMSC, 1 MAI),1 Black Round with Red in White Stripes (CMH),1 Black Round with Red in White Stripes (CMH), 4 Black and White Marbled Rounds (CMH), 32 Union Blue Rounds, (4 CMH), 41 French Blue Horizon Blue Rounds, (39 CMH, 2 RMSC), 3 French Blue Horizon Blue Round with White Stripes (CMH), 1 Russian Green Round (RMSC), 93 Red Rounds (92 CMH, 1 MAI), 1 Red Round with White and Blue Stripes (CMH), 3 Yellow Rounds (CMH), and 33 Clear White Rounds (19 CMH, 14 RMSC).

Tubular glass beads (Tubes) recovered include: 27 Black Tubes (26 CMH, 1 MAI), 6 Black Tubes with White Stripes (CMH), 4 Black Tubes with Red Stripers (CMH), 2 Black Tubes with Red and White Stripes (CMH), 29 Union Blue Tubes (CMH), 3 French Horizon Blue Tubes (CMH), 1 Green Tube (CMH), 579 Red Tubes (CMH), 6 Red Twisted Tubes (CMH), 3 Red Tubes with White Stripes (CMH), 2 Red Tubes with White and Blue Stripes (CMH), 1 Gold Tube (CMH), 23 White Tubes (CMH), 2 White Tubes with Red Stripes (CMH), and 1 White Tube with Blue Stripes (CMH).

Others glass beads recovered include: 3 Union Blue 8-Siders, (2 CMH, 1 RMSC), 1 Clear 8-Sider (CMH), 1 Kelly Green Corn (RMSC), 2 Union Blue Footballs (RMSC), 21 Black Seeds (15 MAI, 6 CMH), 15 Blue Seeds (10 MAI, 5 CMH), 8 Red Seeds (CMH), and 15 White Seeds (10 MAI, 5 CMH).

In the literature, Skinner reports the recovery of 4 engraved bone tubular beads (1921: 58/59) and a short and narrow wampum belt (1921: 60).

**Bells**

Two copper/brass hawk bells were recovered from burials (RMSC).

**Blades**

A small iron tomahawk (Follett 1946,10: 6) and an iron cutlass with an iron basket hilt handguard (Skinner 1921: 63) are reported in the literature.

**Blanks**

One unworked iron rod (19 cm long, 5 cm wide) was recovered from a burial (CMH).

**Bracelets**

Two iron bracelets were recovered from a burial (RMSC).

**Buttons**

Recovered from the site were: 4 pewter buttons, (burial, RMSC), 3 copper/brass buttons (burial RMSC), and 2 metal buttons (CMH). European buttons are also frequently mentioned as being recovered from burials (Follett 1929; 1947: 70/71).

**Coins**

One Roman coin, with 3 horses and a chariot on one side and the portrait of ANTONINUS PIUS on the other, was recovered from the site. The coin is dated to c.165 AD, and is identified having belonged to a Jesuit missionary, Rene Menard, S.J. It has been proposed that Menard had picked up the coin some years earlier near the old Roman camp site in Bourges, France when he was still a student (Follett 1947a: 5).

The second coin recovered from the site is a "Wood" half-penny coin. Coined in England by Wood for use in Ireland, its small size caused it to meet with disapproval. Withdrawn from Ireland, it was sent to America, where it also met with disapproval. Found on the surface of the site, it was made into a button by adding an eye to the back side. The date on the coin is 1723 (Follett 1947a: 6).

**Combs**

The following combs were recovered from burials: 1 engraved effigy comb with 2 Europeans on horse back (RMSC), 4 antler effigy combs (RMSC), 1 wooden effigy comb (RMSC), 1 bone comb with herring effigies (MAI), and 1 antler bear effigy comb (CMH).

In the literature, 1 engraved effigy comb with two "panthers" rampant (climbing on their own tails, and facing each other with tongues joined) is mentioned (Skinner 1921: 62).

**Containers**

Items recovered from the site are all from burials and include: 4 copper/brass kettles (RMSC), a base of a copper/brass kettle (MAI), 1 copper/ brass kettle ear (MAI), 1 octagonal iron box (RMSC), 1 iron kettle hook (RMSC), the bottom of dark glass (rum) bottle (RMSC), 1 iron kettle fragment (RMSC) and the bottom of an iron mirror box (RMSC).

In addition to the frequent reports in the literature of finding copper/ brass kettles (Skinner 1921; Follett 1929; Follett 1946, 10; DeOrio 1978), thick, glass jar or bottle fragments (Skinner 1921: 65, DeOrio 1978), and china sherds (Skinner 1921: 66) are also reported. Follett 1929 reports recovering the rim of a wooden dish from a burial (1929: 5).

**Detibage**

A single worked bone fragment (CMH) and a piece of metal (RMSC) were recovered from the site

**Effigies and Maskettes**

A single stone maskette (with hole for suspension, CMH) and 2 antler effigies (RMSC) were recovered from the site. Skinner (1921) mentions the recovery of a small carved stone maskette, and Ward (1950: 38) mentions the recovery of effigies of bear and beaver in stone. Stone maskettes "were found on the surface of the site" (Ward 1950: 38).

**Fauna, unworked**

One unworked deer phalanx, a turtle shell fragment, 1 bird skull, 3 bear canines, 5 dog/wolf incisors, a bird claw, 12 porcupine quills and 4 unworked bone fragments were recovered from the site (CMH). "A quart of bones and fish scales were reported by Skinner (1921: 62).

**Files**

Follett mentions the recovery of 2 files, 1 file from a disturbed burial (1946, No. 10:7) and 1 round file from a test pit (1946, 10: 7).

**Finger rings**

Finger rings recovered include: 1 iron Jesuit Christianization ring with embossed IHS motif and very thin band (MAI), 1 copper/brass abstract Hand Clasp fragment (CMH), 1 badly corroded copper/brass Jesuit Christianization ring with portrait of a saint (CMH), 1 engraved L-Heart (CMH), 1 copper/brass ring with room for 7 glass stones (CMH) and 1 iron figure ring of native manufacture (MAI).

**Fire making tools**

Follett mentions the recovery of a small looking glass (1929: 10), and a fire making tool [strike-a-light?] (1948: 51/52) from burial.

**Fishing gear**

Two iron fish hooks have been noted from the site (CMH). Two copper/brass fish hooks were reported as being recovered from the site (Skinner 1921: 66).

**Flakers**

An antler flaking tool is reported to have been recovered from a burial (Follett 1946, 10: 6).

**Food**

All food remains recovered are from burials and include: a lot of burned food (CMH), 39 squash seeds (CMH), a quantity of pumpkin seeds (MAI), and two small quantities of berry seeds (CMH, MAI).

In the literature, Follett mentions the recovery of hickory nut shucks (1929) and sunflower seeds (1946, 10: 6).

**Gaming stones**

One shell gaming stone from a burial (RMSC).

**Hammerstones**

The recovery of "A common pitted hammerstone is mentioned by Skinner (1921: 104).

**Knives**

All knives recovered are European made iron items and include: 1 iron rat-tail knife (CMH), 1 folding clasp knife with bone handle (burial, RMSC), 1 straight rat-tail knife with long, pointed blade and undecorated bone handle (burial, RMSC), 1 iron knife blade fragment (burial, RMSC), 1 long pointed, rat tailed knife (burial, MAI), 1 rat-tailed knife with long blade and bone handle (MAI), 1 rat-tail knife with long, thick blade (MAI), and a worked bone knife handle fragment (MAI).

Iron knives are frequently reported in the literature as being recovered from the site (Skinner 1921; Follett 1929, 1946, 10; DeOrio 1978).

**Nails**

The 3 sets of nails were recovered from 3 different coffins (2 from coffin 1, 10 from coffin 2, and 7 from coffin 3). All examples are hand-wrought (RMSC).

**Organics**

All organics recovered come from burials and include: 1 piece of leather (RMSC), 1 bark fragment (RMSC), 1 piece of wood (CMH), a section of a burial cloth (CMH), a section of bark and animal skin (MAI), a bark fragment (MAI), and a textile fragment (MAI).

In the literature, Skinner reports the recovery of a green blanket from a burial (Skinner 1921: 57).

**Paint**

Two pieces red hematite were recovered from two burials (CMH).

**Pipes**

Pipes recovered from the CMH include: 1 human face effigy pottery pipe bowl, 1 stone pipe bowl with hole for stem, 1 dog/wolf effigy from stone pipe, 1 undecorated pottery pipe, and 1 white ball clay "kaolin" pipe (no marks and 7/64 bore). Pipes in the RMSC collection are all from burials and include: 1 native pipe fragment, 1 native trumpet pipe, 1 complete extended elbow pipe with ring design, 1 molded white ball clay "kaolin" pipe (unmarked) and 1

native pipe bowl fragment. Pipes from the MAI collection include: 1 undecorated extended, native elbo pipe and a European copper/brass lion and deer effigy pipe.

Skinner mentions the recovery of a native clay pipe, a pottery effigy pipe and a native clay pipe fragment of line and dot pattern (Skinner 1921: 57/58), while Young states that white clay pipes are found in great numbers (1949: 110).

**Projectile weapons**

Objects recovered from the CMH include: 1 unbent musket barrel, 1 bent musket barrel, 1 straight section of musket barrel, 1 complete *snaphaunce* lock, and 1 gunflint. Also recovered from the RMSC were 2 bone projectile points (burials) and 2 complete iron trigger guards (burial). Five Native gun flints and 1 European gun flint were examined in the MAI collections.

Skinner (1921: 57) mentions the recovery of a gun and an iron bullet mold of small caliber (Skinner 1921: 58). A steel harpoon, and 1 fire-lock (probably a type V-c, after Puype 1985), were recovered from a burial (BASCNY 1948: 28). Musket barrels and fire-locks are often reported as being recovered from the site (Skinner 1921; Follett 1929; Follett 1946, 10; DeOrio 1978).

In total, 12 copper/brass projectile points (8 from CMH, 4 from MAI were examined. Skinner (1921) mentions the recovery of flint and copper/brass points and a flat, narrow wooden object nearly six foot in length (a possible long bow?), while both Young (1949) and DeOrio (1978) mention the predominance of copper/brass over stone points.

**Religious items, European**

Religious items recovered include: 1 hollow 2-piece copper/brass European-made effigy of the Madonna with child (CMH), and 1 corroded copper/brass metal (CMH). The most significant European religious item recovered, however, was a a copper/brass host container, 3.5 inches long and 2 inches wide (RMSC). This host container had a heart and dove motif on the lid, which was produced by stamping from behind. Also etched onto the lid was the Latin phrase ***Cuique Summe*** .

Skinner (1921: 57) mentions the recovery of a crucifix from a burial.

**Religious items, Non-European**

A turtle shell rattle with 14 small pebbles was examined in the MAI collections.

**Scrappers**

An iron hide scraping implement and a glass scrapper (made from window glass "rounded upon one edge" are reported as being recovered from burials in the literature (Follett 1929: 3/4).

**Scissors**

Two pairs of iron scissors (CMH) and 1 iron scissor fragment (RMSC) were recovered from burials at the site.

**Spoons, ladles and spatulas**

A wooden spoon fragment (RMSC), 1 antler ladle (RMSC), 1 copper/brass spoon (RMSC), and wooden ladle fragments (MAI) were recovered from burials.

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