

# The Bulletin

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## Contents

The Orchid Site Ossuary, Fort Eire, Ontario Marian E. White	1
Annual Meeting 1967	24
Holocene History of the Lower Hudson River Estuary Walter S. Newman	36



# THE BULLETIN

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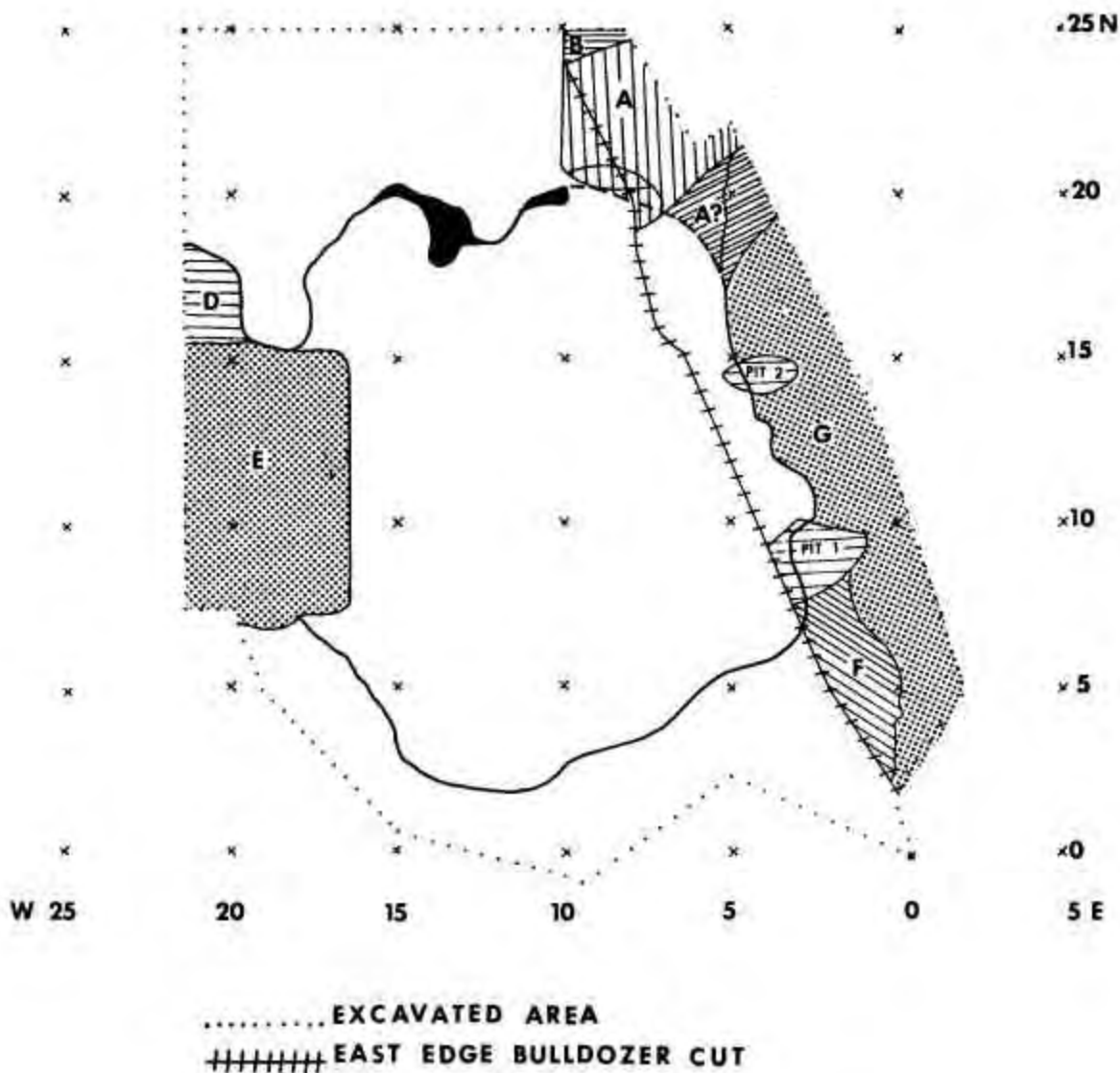


FIGURE 1. OUTLINE OF AREA A OSSUARY, SHOWING INTRUSIVE PITS

## THE ORCHID SITE OSSUARY, FORT ERIE, ONTARIO

Marian E. White

Frederick M. Houghton Chapter

## INTRODUCTION

On July 17, 1964, a bulldozer was excavating a corner lot at Niagara Boulevard and Forsythe Avenue, Fort Erie, Ontario, in preparation for a black-topped parking lot. After a considerable portion of the earth surface had been removed and trucked away, contractor James Flake noticed that his machine had dislodged human bone. He responsibly reported his observations to the Fort Erie city officials and ceased work until an investigation could be made. At the request of the city officials, Mrs. Lee Moore contacted several institutions, including the University of Buffalo Anthropology Department, where the writer agreed to investigate and make recommendations since the site was directly across the border.

Through a series of unforeseen circumstances, the investigation turned into an immediate salvage operation conducted under most discouraging and restricted conditions. It was made tolerable by the excellent cooperation of William C. Noble, National Museum of Canada representative, who worked with us throughout most of the period, and by certain townspeople in Fort Erie who became friends and helpers. The Frederick M. Houghton Chapter of the New York State Archeological Association came through as always with invaluable help. But above all, credit must go to the crew of University of Buffalo students who reacted to a most difficult situation with dignity, good judgment, humor, and the conviction to work 24 hours straight to give the job the best that circumstances would allow. Joseph Granger was assistant in charge of field excavations and Audrey Sublett in charge of field osteology. Regular crewmembers were: George Abrams, Leona Allison, Barbara Butler, and Kay Martin.

Our labors extended over ten days during which we attempted to get the greatest amount of overall information on a most important multiple occupation site at the expense of detailed information and precision on any single portion or occupation. Consequently, many details remain unclear, and the cultural and skeletal material, which had to be left in the ground at the deadline for closing the operation, are lamentable losses. But the information, which we acquired, is reliable and important. The material recovered is now part of the collections of the National Museum of Canada with whom we share the responsibility for analysis.

## LOCATION AND GENERAL DESCRIPTION

The Orchid Site (Ar Gf-1), Lots 1 and 2, Fort Erie, Ontario, is owned by Anthony Marinaccio. It stands on the first terrace above the present Niagara River level, paralleling the river at 100 East of North. The eastern edge of the lot is close to the edge of the first terrace, which is now obscured by the street and by tons of fill used to extend the waterfront. Only the northern and western portions of the lots were freshly leveled by the construction, the remainder being covered with buildings or crushed stone. The portions, which were examined, had been covered with fill. As a result, no accurate reconstruction of the original terrain could be made. But the large amounts of cultural debris and the numbers of pits indicate that this sandy knoll was a favored spot for human living right up to the present.

Examination of the disturbed surface at the Orchid Site showed two areas remaining to be investigated (Fig. 2). One, Unit A, later shown to be an ossuary with a midden above, was a discrete unit. The second area, Unit B, was a narrow strip delimited by the house in the adjoining lot to the north and the edge of the crushed stone to the south. It consisted of the refuse of several occupations, within which were single burials and pits.

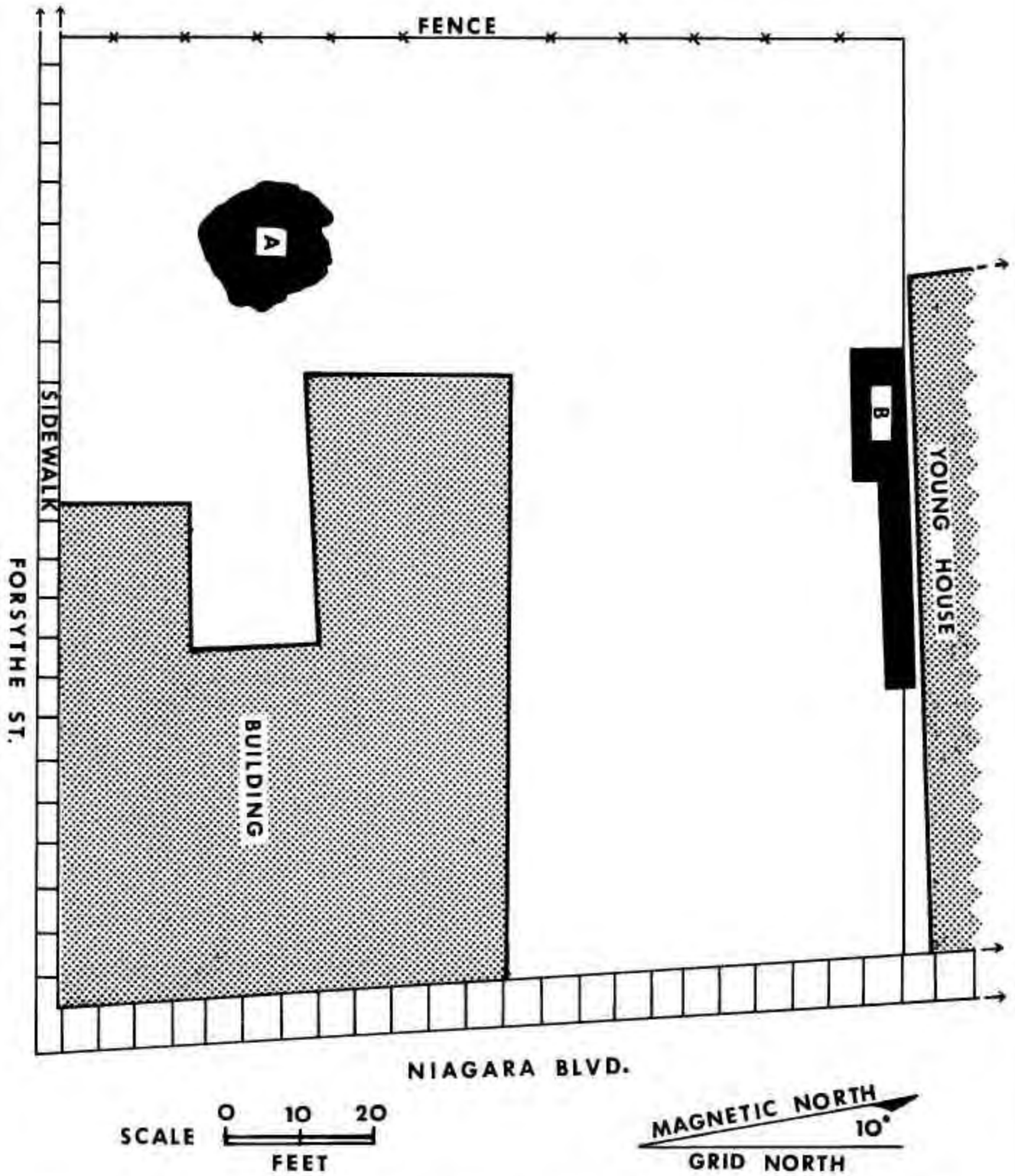


FIGURE 2. LOCATION OF ORCHID SITE, FORT ERIE, ONTARIO, SHOWING UNITS A AND B

The soil profile appears to have been the same across the whole area from observations at diverse locations although the thickness of the zones varied. The uppermost level, the root zone, referred to as Layer I, was in most places either missing, disturbed, or covered with fill. In most cases it could not be defined more precisely because it was disturbed or removed. The one observation of undisturbed Layer I compressed by and not including the fill was over the east edge of the ossuary where it was .55' thick. Layer I generally referred to the soil zone above Layer II, irrespective of the conditions. All soil zones below Layer I were, by definition, undisturbed and clearly recognizable. Layer II, a zone of black sand, probably started at the base of the root zone, but in most cases the upper part of it had been disturbed and therefore became part of Layer I. Layer II was whatever remained of the undisturbed black sand zone. Layer III was the brown sand zone beneath. The latter changed abruptly to a white or yellow sterile sand, designated as Layer IV.

#### *Unit A\**

The approximate center of Unit A, 12N 11W, lay 30' north of the sidewalk bounding the lot on the south and 29' east of the fence forming the west boundary (Fig. 2.). The bulldozer had removed the surface over most of the area except for an unknown extent on the east and had left a scattered mass of broken bone, which was further confused by looting. In this bulldozer-disturbed zone there was recent cultural material mixed with powdered and fragmentary bone. The bottom of the bulldozer-disturbed area was finally reached at 2' below the original surface. The soil was the brown sand of Layer III. The entire bone deposit lay within Layer II, and the vertical face of the bulldozer cut as well as horizontal examination of the undisturbed eastern edge showed Layer II intact and therefore laid down after the bone deposit had been made. The perimeter of the feature was traced by noting where the brown sand cut into the white sand of Layer IV. The form of the outline as shown in Fig. 1 (see the cover) is roughly oval with numerous lobes. Interpretations of form were complicated by intrusive pits on both the eastern and western edges. The eastern edge finally became clear except in the northeast corner where intrusive Pit A was deep and made the identification doubtful. The western edge was cut into by Pits D and E, both European, with E being possibly part of the foundation of a fireplace, which obliterated the pit edge. Irrespective of the irregular outline, the maximum length and breadth were the same, 18.5', when measured along lines northwest-southeast and northeast-southwest, while the minimum breadth is 16'.

A careful inspection of the undisturbed surface of Layer IIIA when first observed at about 2' below the original surface where the bulldozer had stopped showed concentrations of bone within the pit. These are shown in Fig. 3. The bone extended to the edge of the pit only at the north end. The south end and sides were rimmed by a wide band of brown sand up to 4' in which bone was very scarce. There was also a central area of brown sand.

The bone concentrations seemed to subdivide into discrete units, which were designated features to allow identification upon removal. Features II and IX formed the hollow circle of bone centered in the ossuary and shown in Fig. 3. The burials were removed by feature and later by section. All comments on the skeletons are based on field observations alone.

Features I and X require further comment. Feature X was a flexed burial intact except for the skull, which had been smashed and scattered by an intrusive pit. The skeleton was on its right side with the head to the west. The legs were tightly flexed. The upper or left arm had been disturbed by the bulldozer. The right arm was at the side and bent, forming a right angle at the elbow. All bones were articulated except that the head of the femur had slipped posterior to normal resting place in the acetabulum. The burial was probably intrusive into the ossuary, although the evidence was not conclusive since the surface, which might have shown an outline if this were a separate pit had been removed by the bulldozer.

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\*Unit B is not described in detail in this paper. Ed.

The bottom seemed to be distinct as if a separate pit, but the soil difference could have easily resulted from the contrast between an intact burial with flesh and defleshed bone. Nor is the cultural material from Feature X indicative of an intrusion. Only one netsinker beneath the pelvis was clearly undisturbed. A cordmarked potsherd and two tip portions from blades could be duplicated in the central deep pit.

Feature I was also a single individual. The feet and ribs were articulated. It was not clear whether this represented a bundle or a flexed individual, but the evidence favors the former. Nor was it clear whether the burial was intrusive. The cultural material with the bones consisted of three cordmarked body sherds and one sherd decorated with a cord wrapped stick impressed punctate over cordmarking. These are similar to material in the main ossuary, but since they are not grave goods, their presence does not preclude an intrusive burial since artifacts from an earlier culture might be mixed in a later pit. The position of both Feature I and Feature X outside the main mass of bone supports the suggestion of intrusive burials.

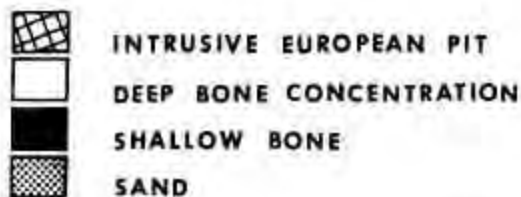
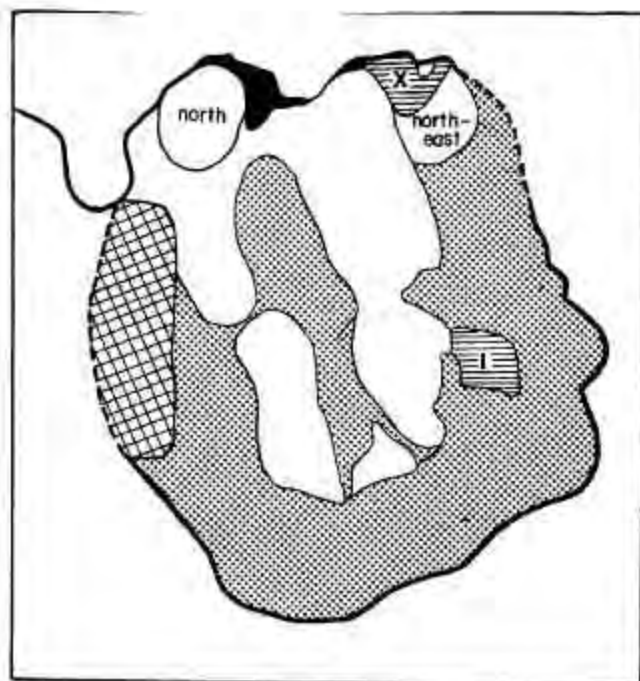


FIGURE 3. FLOOR PLAN OF AREA A OSSUARY, SHOWING SUBFEATURES AND BONE CONCENTRATIONS.

The form of the pit changed as the excavations went deeper. 2 lobes shown in Fig. 3 as "north" and "northeast" were shallow pits, which were not part of the central deep pit, although they were certainly part of the burial. The north lobe had a north-south dimension of 3.75' and an east-west dimension of 2.7'. It extended .6' below the bulldozer-cut level and its base was separated from the main ossuary by .3'. It contained a minimum of 10 individuals. The artifacts, 1 cordmarked body sherd and 1 blade section are similar to material from the main feature. The northeast lobe was circular, 2' in diameter, and contained at least 19 individuals, including a juvenile. Some of the bones were articulated. Its depth was .75' below the bulldozer-cut level. Artifacts included were a cordmarked body sherd and a sherd decorated with a cord-wrapped stick impression over cordmarking.

The surface at which the bone concentrations are shown in Fig. 3 is an arbitrary surface left by the bulldozer. Nevertheless, it appears to give some clue to the vertical structure of the burial pit. The outside margin of the bone concentrations in Fig. 3 coincides with

several places noted on the vertical profiles as points at which the pit suddenly deepened. It appears then that the bone concentration, which can be seen in Fig. 4, Layer IIIA, remained as a shallow center 2.35' thick (only 1.25 when the profile was drawn) since an estimated one-third of it had already been removed by the machinery. Its original thickness was estimated to have been 3.85' if the bone had continued up to the bottom of Layer II.

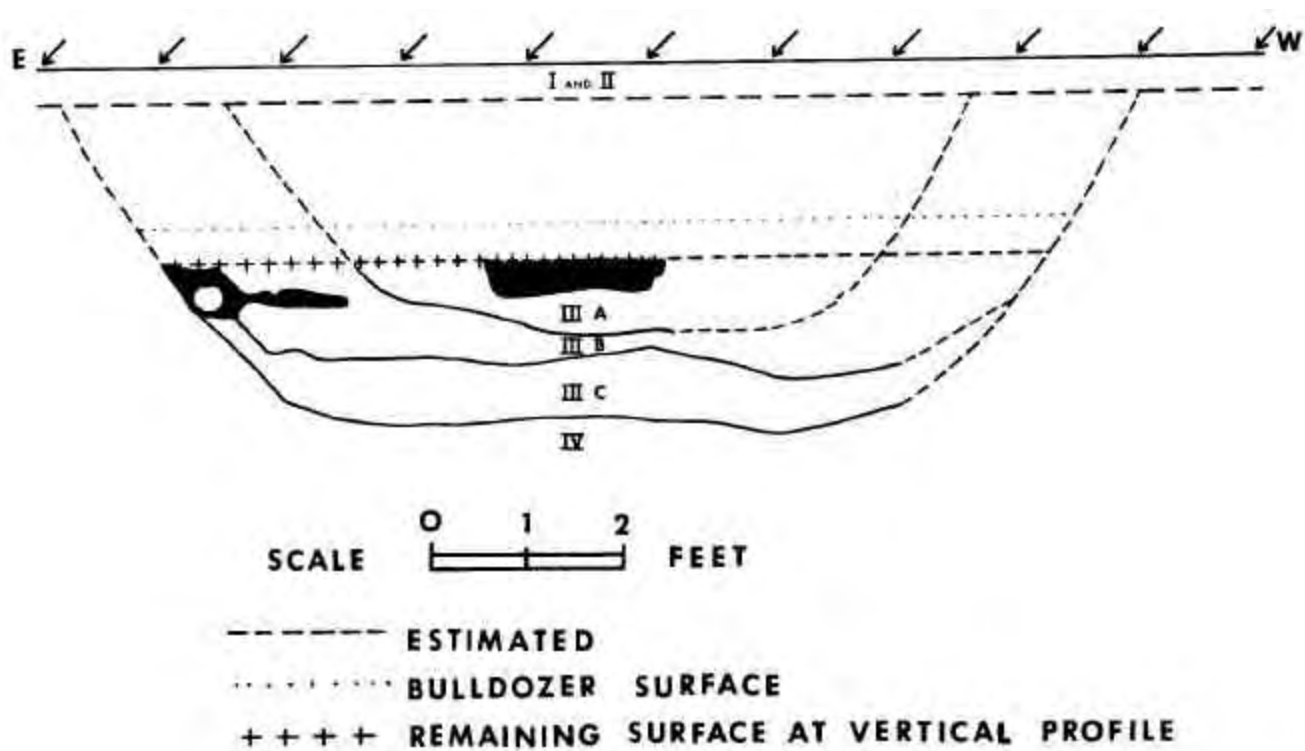


FIGURE 4. VERTICAL PROFILE OF AREA A OSSUARY

If the profile resembled that of the Ossossane ossuary, where the bone deposit lay about 2.4' below the concave surface, then the bulldozer at 2' may have disturbed only the surface of the bone deposit. No evidence of the original surface of the bone remained because the undisturbed surface of the bulldozer cut was east of the bone concentration although still within the ossuary (Compare Figs. 1 and 3). Its approximate size would have been 14' north-south and up to 8.5' east-west. Beneath Layer A was brown sand containing very little human bone. This Layer IIIB averaged about a foot in thickness and is the same brown sand surrounding the bone concentrations in Fig. 3. Beneath Layer B was a second layer of bone lining the pit. This is shown as Layer IIIC in Fig. 4. The darker stained soil of this level is probably due to the bone rather than to any difference in soil. In fact, the distinction between Layer B and C results from the top surface of the lower bone deposit. The depth of the ossuary bottom below extrapolated original surface was 5.6' at the profile with 5' of this related to the ossuary and .6' accumulating after the bone deposit.

The bone in Layer IIIA was tightly packed in those areas where bone concentration is indicated. In general, there was no pattern detectable and the bones were probably thrown in. However, bundles were distinguished in several places. For example, in the southwest quadrant of 10N 10W (Feature II) an immature individual was represented by a number of bones probably from a bundle. In Feature IX, which extended to the north periphery of Area A, a bundle was laid north-south over top of one laid east-west. Also on the same edge was an immature individual represented by a number of bones, including an articulated leg

and foot. Articulated mandibles, maxillae, and vertebrae were frequently encountered. The position of the skulls indicated no orientation of face or head whatsoever. They were thought to be most numerous in the northwest quarter of the ossuary where the periphery of the pit may have been outlined with skulls. However, skulls were so numerous all over and time for observations so limited that we cannot support this nor the observation that the skulls and pelvises were associated more frequently than would be expected by chance. Some skulls were broken prior to being deposited here and pieces were missing. There were several instances of phalanges found within the skulls.

Layer IIIB identified by the absence of bone could only have been thrown in over Layer C. There is nothing to indicate that any time interval intervened within Layer III. Layers IIIB and IIIC were observed carefully only in the southeast quadrant south of ION and east of IOW. The bone concentration of Layer IIIA extended into this quadrant only in the northwest corner where it was removed to expose Layer IIIB. Layer IIIB was intact across the whole quadrant, and the brown sand contained abundant flint chips, 2 cordmarked potsherds, and a handful of refuse bone, including fish and deer. One projectile point, tip broken and possibly unfinished, is a Levanna with a length (incomplete) of 37 mm. and a width of 30 mm. After Layer B had been removed to a depth of approximately .8', bone appeared along the perimeter. These bones were grouped in 5 discrete units designated "Southeast perimeter Burials I-V." These had almost certainly been placed in position and all contained remains of more than one individual.

Burial I was 2 parallel bundles with their long axes north-south and the skulls at the south end of each bundle. The vertebrae and foot of one were articulated and the vertebrae were arthritic. In the midst of the bones was a finely cordmarked body sherd with medium cordmarking on the interior as well. Tempering material is quartz and the thickness is 10 mm. The sherd could be classified as Vinette I, except that the tempering particles tend to be smaller and the thickness less. One blade was also with the bones. The blade has the flat flaking of Point Peninsula, but a very thick midsection. It is shown in Plate VII, Fig. 14. While it is possible that these and the material with Burial II could be inclusions from earlier cultures, as could any burial material except grave goods themselves, it is very difficult to conceive of any way in which these objects could have become so closely associated with the bundles and even within the bundles unless they were in fact within the bundle when it was deposited.

In Burial II some long bones ran east and west while others were nearly perpendicular to the ground. 2 individuals were represented. 3 cord-marked body sherds varying in thickness up to 15 cm. appear to be from 3 different vessels. 3 hunks of flint were also mixed with the bones. Burial III was 3' from Burial II and had 2 skulls. 3 vertebrae were articulated. Burial IV consisted of an adult and an infant. Burial V was an infant and 2 adult skulls.

Probably similar groups of burials made up Layer IIIC throughout the ossuary. These would only be detected through horizontal exposure of sizable portions. Certainly the grouping indicates some kind of kin relationship of the individuals placed together. None of the remains in Layer IIIC were noted as being intact skeletons.

This is in contrast to what is found in Huron and Neutral ossuaries. At Ossossane the recently deceased were placed in the grave first. There is no indication of whether they were covered with earth. Several of the Neutral ossuaries described by Ridley had a floor separating the bone into 2 levels. The accounts do not indicate that those below the floor were intact skeletons, but this was probably not ascertained by the excavators.

Level IIIB in the Orchid ossuary may separate the placed remains from the thrown remains. It does seem significant that no remains of the recent dead were noted in the ossuary, suggesting that all bones may have been brought from a distance.

Estimates of the total number of individuals are unreliable and are based on field observations alone. The skulls of 208 individuals were removed before the impending deadline forced us to stop counting by individual skull. A laboratory count has not yet been completed.

Burials up to an estimated 50 were left in the ground when we were forced to close the excavation. Our total estimate is around 300, after the bulldozer activity. Since up to one third might have been removed by the bulldozer, a rough estimate of the maximum might be 450 individuals and the minimum, 200.

In summary, the oval ossuary was entirely within Layer III with Layers I and II removed by the bulldozer except on one edge. The remains lay in concentrations of jumbled disarticulated bones, including bundles. One articulated skeleton was probably intrusive. Two shallow lobes protruded on the north edge and were separated from the main ossuary. The latter had been dug 5.6' deep with steep sides and a flat bottom. Remains of several bundles were placed in groups on the floor. These piled up to about 1' and then another foot of brown sand was thrown over them. Finally more bones were placed and thrown in on top forming an oval of bone concentrations with a center of earth. Artifacts were scattered throughout the deposit but were not grave goods.

The cultural material recovered from Unit A did not in any instance consist of deliberately placed grave goods. Yet, fragments of pottery, chipped and rough stone, and animal bones were encountered throughout the ossuary as well as in Layer II, which was intact only over the east edge of the ossuary. Any or all of these could be the remains of an earlier culture as well as those of the culture responsible for the ossuary. Many of the artifacts were recovered from the loose soil disturbed by the bulldozer and consequently cannot even be associated with surface, Layer I, Layer II, or Layer III. In spite of these difficulties, there is considerable consistency among the artifacts, as the following descriptions will show.

### *Pottery*

*Rims.* Nearly all rim sherds were very fragmentary and seldom was there more than a single small sherd representing a vessel. This condition is unusual and indicates that the sherds were stray fragments from numerous vessels. They might have been chance inclusions when the bodies were disinterred from their primary burial or they might have been accidentally included in the soil thrown in for reburial. The position of some was carefully noted as being surrounded by bone and suggests that the sherds were part of the bundles when these were reburied.

The small size of the sherds is particularly disadvantageous in studying pottery styles since they frequently employ neck decoration either as designs on the neck or as a single row of deep holes or interior nodes some distance below the lip. Small fragments may not show the holes, even though they come from such a vessel or, if they have neck decoration, are too small to allow recognition of the pattern. Therefore, description and identification are sometimes less than certain and the recognition of rim, neck, and body sherds from the same vessel nearly impossible. For these reasons, each of these vessel parts will be treated separately.

40 rims representing a probable 38 vessels were treated with a cord-wrapped paddle, incised, or undecorated. The first category, either cord-wrapped stick impressed or cordmarked contained 89% of the vessels which were subdivided into cordmarked on the exterior only and cordmarked on both surfaces.

An examination of the exterior of the rims of 30 vessels without interior cordmarking shows a division into three classes: (1) those with holes or interior nodes and without neck decoration, (2) those lacking holes and having neck decoration, and (3) those without either. The frequencies of these classes are 9, 6, and 15 respectively. The distinction between class 1 and class 3, i.e. the presence or absence of holes, should be regarded with caution since only 5 of the 15 rims in class 3 are high enough to include the rim 25 mm. below the lip. Since the holes average 24 mm. below the lip, any sherd less than this in size is scarcely good evidence for their presence or absence. It is important to note the complete absence of a fourth possible class, which these attributes might form, in which both neck decoration and holes are present. This association of neck decoration with the

absence of holes and the opposite combination might occur 8 times out of 100 due to sampling error, according to chi square tests. Therefore, it is uncertain whether the association is the result of sampling error.

The 9 vessels in class 1 of the cordmarked exterior category would all be classified as Wickham Punctate (Ritchie and MacNeish 1949:104). 6 have no other exterior decoration (Plate I, Figs. 1-6). The remaining 3 all have the decoration confined to the area adjacent to a thickened lip. On 2 this consists of very short oblique impressions from a cord wrapped stick, (Plate I, Fig. 7) while the third has short verticals (Plate I, Fig. 8).

The 6 neck decorated vessels are all cordmarked beneath (Plate I, Figs. 9-14). 1 has a design composed of very short cord-wrapped stick impressions punctations in rows which appear to be arranged to form triangular blocks separated by triangular blank areas. 2 have horizontal rows of cord-wrapped punctations. All 3 are probably Jack's Reef Corded Punctate (Ritchie and MacNeish 1949:107). 2 more have columns of short horizontal cord wrapped stick impressions. The last has vertical cord wrapped stick impressions. All are Carpenter Brook Cord-on-Cord (Ritchie and MacNeish 1949:108).

The 15 class 3 rims are all cordmarked without further decoration visible on the often extremely fragmentary pieces (Plate I, Figs. 15, 16). These appear to be Levanna Cord-on-Cord (Ritchie and MacNeish 1949:110).

None of these rims are collared. 2 attributes of rim and lip form were examined. 1 was a straight compared to an out curving rim. The second was a squared or flattened lip versus a round or pointed lip. Square straight lips are most numerous (15 or 50%) and square out curving lips are second (9 or 30%). Rounded or pointed lips occur with the out curving form 4 times (13%) and with straight lips twice (7%).

The lips are usually cordmarked or decorated, only 5 (17%) being smooth. 15 or 50% are cordmarked; 8 (26%) are marked with oblique or vertical cord impressions. Only 2 (7%) have horizontal cordwrapped stick impressions. Cordwrapped stick impressions mark the interior of 14 rims while 14 are smoothed. Some of the impressions are partially obliterated by interior wiping.

The group of sherds cordmarked on both exterior and interior surfaces consisted of 6 rims and 32 body sherds (Plates II and III). These will be treated as a single group in contrast to the other classes in which rim sherds have been considered separately. The importance of this category made it desirable to know the frequency as precisely as possible. The 38 sherds represent between 14 and 19 vessels and therefore 16 will be used in quantitative comparisons. The number of vessels is unchanged by the addition of 4 body-sherds from the bulldozer-disturbed zone since they appear to be from the same group of vessels.

Only 1 section of vessel is sizable enough to observe in detail (Plates II and III, Fig. 1). The exterior was finely cordmarked by a paddle held perpendicular to the upright vessel. The outcurving rim is decorated by a single row of deep circular punctations pushed from the outside in and forming slight interior nodes. These punctations are spaced about 25 mm. apart and are 8-10 mm. deep. The interior is cordmarked with what appears to have been the same tool held at a 45° angle to the lip. The interior cordmarking extends down from the lip about 25 mm. and below that the surface is smooth. The flattened lip is cordmarked. 3 body sherds from the latter part of the vessel have not been classified with this group even though they are part of the same vessel. This does not affect the comparisons since these are based on vessel count. Except for the interior cording this vessel would be of the Wickham Punctate type.

A group of 5 sherds from a single vessel including a rim have exterior-interior markings different from most in this category (Plate II, Fig. 2). Both surfaces were treated with the same tool, which may have been a paddle with thick heavy cords or even a basket, leaving narrow sharp ridges and broad troughs approximately 3 mm. wide. The irregularity of edges suggests that a grooved paddle was not the tool used. On the straight rim the markings are at a 45° angle to the lip, but at a 90° angle to each other. The lip is flattened,

cordmarked, and slightly out sloping. Except for this last characteristic, this vessel would be classified as Vinette I. Certainly a body sherd from it would be classified as a Vinette I sherd.

A single rim was cordmarked on the exterior and is faintly marked, possibly smoothed over cord, on the interior (Plates II and III, Fig. 3). On the exterior the paddle was held at right angles to the upright vessel while on the interior the paddle was parallel to the vessel. The exterior of the slightly outcurving rim is decorated with closely spaced cordwrapped stick impressed chevrons, which faintly cover the upper 33 mm. The flattened lip is cordmarked. This vessel would be classified as Carpenter Brook Cord-on-Cord if the interior markings were absent.

Another rim, the only representative of a vessel, is cordmarked on the exterior and interior without further decoration observable on the rather short rim sherd (Plates II and III, Fig. 4). The slightly out-turned flattened lip covered with cordmarking differentiates this from a Vinette I vessel.

The remainder of the sherds marked on both surfaces are all body sherds. A group of 6 comprise parts of a single vessel. (Plate II, Fig. 6). The exterior is covered with fine cordmarking. The interior markings are unidentifiable, but were not the same as the exterior. They were applied in 2 operations. The innermost ones may have been a coarse cordmarking. Over this were rather sharp and deep depressions and when the 2 sets occur at right angles, the impression is one of a checkerboard.

3 bodysherds are part of the same vessel as a decorated sherd almost certainly from near the vessel rim (Plate III, Fig. 7). The incomplete decoration consists of cordwrapped stick impressions about 25 cm. in length made obliquely from right to left. The interior markings may be smoothed-over cord. The decorated sherd shows a slight concavity approaching the rim. This is like Carpenter Brook Cord-on-Cord except for the interior cording.

The remaining 21 sherds with interior marking come from 8 to 13 vessels and appear to be cordmarked on both surfaces. A number of these would be indistinguishable from sherds classified as Vinette I. Yet on the basis of those interior marked body sherds, which can be associated with rims, none are Vinette I. We might speculate, on the basis of one vessel, that interior cordmarking sometimes replaced the interior cordwrapped stick impressions that are common on the pottery. Yet, we must add that most of these sherds are so small and show so little curvature that there is doubt about their location on the vessel. It is also important to note that the exterior of the vessels falls into the same types as those vessels without interior cording. On the basis of this small sample it seems premature to modify existing types to include these and imprecise to include them without distinction. Perhaps most important of all is the recognition of sherds, sometimes indistinguishable from Vinette I but in a very different cultural and temporal context.

3 rims and 7 other sherds are incised for 8% of the total. The incising on all is sharp and fine and not typically Iroquois (Plate IV, Figs. 1-4). On 2 rims the design is a row of chevrons. On the others the design is in ascertainable but closely spaced parallel lines occur. All are smooth on the interior and nearly straight rimmed. These fit the description of Wickham Incised except for the presence of a flattened lip, and possibly the sharp incising in contrast to trailing on the latter.

1 small fragment of rim appears to be smooth on both surfaces and has a square lip (Plate III, Fig. 2). It resembles Point Peninsula Plain but lacks the incised lip.

A comparison of the vertical distribution of pottery for Level II, above the ossuary, and Level III, within the ossuary, shows no significant difference. These are given in Table I together with the total for each class, including those from the disturbed part of the ossuary.

The frequency of these classes bears out the popularity of cordmarking with or without cordwrapped stick impressions and the total absence of dentate stamping. No collars occur on the 38 vessels, but lip decoration is present on 79%. Cordmarking is the most

TABLE I  
FREQUENCY OF POTTERY TYPES

Class	Number of Vessels Represented		
	<u>LEVEL II</u>	<u>LEVEL III</u>	<u>TOTAL</u>
Pottery Types			
Carpenter Brook Cord-on-Cord	0	3	3
Jack's Reef Corded Punctate	1	1	3
Levanna Cord-on-Cord	4	8	15
Wickham Punctate	2	4	9
Interior Cordmarked plus:			
"Carpenter Brook Cord-on-Cord"	1	0	1
"Levanna Cord-on-Cord"	1	1	2
"Wickham Punctate"	0	1	1
Other			
Incised	2	0	3
Undecorated	1	0	1
Total	12	18	38

popular treatment. Flattened lips predominate (84%). 20 rims are straight compared to 12 outcurving.

*Neck Decoration.* A number of decorated fragments are present and give some information on neck decoration. The number of vessels represented cannot be added to the number of vessels represented by rims since some may be from the same vessel, but there is no way of connecting the two areas. All are decorated by cordwrapped stick impressions over cordmarking.

1 group of 49 fragments pertains to 3 possible motifs: (1) a column of short parallel impressions on the neck, parallel to the rim, (2) a similar arrangement except that each successive line is applied slightly more to the right than the one above so that the column runs obliquely down from right to left (or left to right?), (3) longer lines of uncertain length and number encircle the neck, sometimes with very short vertical impressions beneath. Many of these are probably Carpenter Brook Cord-on-Cord.

A single neck sherd has a motif of oblique cord impressions with 2 horizontal impressions above and below. 9 more have single cord impressions in unidentifiable motifs.

Corded punctations occur in several partly identifiable motifs. 3 sherds from 3 vessels have the punctations arranged in rows to form triangular blocks with undecorated blocks intervening. 2 others from 2 vessels outline undecorated triangular areas with corded punctations. Another has the punctations spaced to form at least 8 parallel encircling lines. 3 more have unidentifiable motifs formed by punctations. Many of these are probably Jack's Reef Corded Punctate.

3 fragments have interior nodes or holes and are Wickham Punctate.

The neck decoration like the rims gives evidence for the popularity of cordwrapped stick impressions over cordmarking. Not a single neck is smooth. The small size of the neck sherds makes it difficult to recognize distinctive designs. Examples are shown in Plate IV.

*Body Sherds.* Analyzable body sherds recovered from Unit A numbered 264. They were treated as follows: 222 (84%) cordmarked exterior; 32 (12%) cordmarked on both surfaces; 8 (3%) smooth; and 2 (1%) otherwise marked. An additional 94 analyzable sherds were recovered from the bulldozer-disturbed zone and break down as follows: 90 exterior

cordmarked, 4 cordmarked both surfaces. This last group is not included in the discussion which follows.

The predominant style of surface decoration was clearly cordmarking. The 84%o noted above is misleading as an indication of popularity because an additional 44 body sherds with only one surface present show cordmarking on 41, all of which would classify as cordmarked on one or both surfaces.

14 of the body sherds classified, as cordmarked should perhaps be further distinguished as cordwrapped dowel. These either show an undulating surface from rolling a cordwrapped dowel across or show random cordwrapped stick impressions (over cordmarking) from a tool of a sizeable diameter up to .2" in diameter.

2 body sherds have surface treatment, which is unidentifiable. Both are unusually thick (13 and 15 mm. respectively) and have rough uneven surfaces on which the markings have been largely obliterated.

The vertical distribution of classes of body treatment does not vary significantly from Layer II to Layer III. A comparison of Layers II and II by class is shown in Table II.

TABLE II  
COMPARISON OF CLASSES OF SURFACE TREATMENT OF BODYSHERDS

Class	Layer II		Layer III		Total	
	Number	Percent	Number	Percent	Number	Percent
Cordmarked Exterior	98	82	124	86	222	84
Cordmarked both surfaces	15	13	17	12	32	12
Smooth	6	5	2	1	8	3
Other	0	0	2	1	2	1
Total	119	100	145	100	264	100

*Pipes.* 3 pottery sherds not included in the above tabulations may be from 2 pipes. 1 from undisturbed Layer II is very crudely formed with a rim, which was finished unevenly. There is no decoration. The diameter of the bowl interior is estimated to have been 25 mm. The second is from Layer III. The rim is missing and only the bottom of the decorated zone remains. These appear to be very sharply cut in or impressed. This sherd is also very roughly formed. The diameter of the bowl interior is estimated to be 34 mm. Both bowls were large in size, judging from the diameters. They are smooth in contrast to the pottery.

#### *Chipped Stone*

*Points.* Several projectile points of identifiable types were found in the ossuary. The base of a Perkiomen Broad (Ritchie 1961:42) was found undisturbed in Feature VI at .4' from skull 6. A Genesee Point (Ritchie 1961:24) was found in the disturbed area. Both probably precede the ossuary, judging from the date assigned to them elsewhere. 2 Jack's Reef Corner-Notched came from Level II and from the area disturbed by the European fireplace. A third point also from the disturbed fireplace area has a broken stem which makes identification difficult, but could also be Jack's Reef Corner Notched. These 5 are shown in Plate VII, Figs. 1-5.

2 triangular points came from Level II. They are unusually thick (7 mm.) and may not have been completed. One is 36 mm. long by 21 mm. wide and the other is 37 mm. long by 20 mm. wide. Both are Madison Points (Ritchie 1961:33). Both typology and provenience suggest that these are later than the ossuary. A third specimen has an asymmetrical base and a broken tip. It is 42 mm. long by 22 mm. wide by 10 mm. thick and

may have been a thick unfinished triangular projectile point. It was found in the disturbed area. These are shown in Plate VII, Figs. 6-8.

A number of other specimens either relate to or resemble triangular points and will be described here. Some are too fragmentary or crude to be certain of identification. Others are in a stage of manufacture, which makes it impossible to tell them from strike-a-lights.

One specimen must be incomplete if it was a point since a section of one side has not been worked to an edge. The tip is missing and the base lacks the sharp corners characteristic of triangular points. Yet the specimen is worked to a thin, finished surface. The extrapolated length is 50 mm. by 30 mm. in width. If this was to be a point, it is likely that it would have to be classified as a Levanna (Ritchie 1961:31). Its provenience was Layer III, in the southeast quadrant of the ossuary. (Plate VII, Fig. 9).

A base from the disturbed area seems too asymmetrical to be a projectile point. Its extrapolated length is 65 mm. and width is 27 mm. In proportion it resembles a specimen from Layer II disturbed which is almost certainly a triangular knife. The concave edge of the knife has many small use scars. (Plate VII, Figs. 10-11).

*Blades.* 2 narrow rectangular bases may have been part of similar tools. 1 is nearly complete and shows retouching mainly on the more convex surfaces. The extrapolated length is 52 mm. and the width is 22 mm. The second is parallel sided for an incomplete length of 41 mm. and a width of 23 mm. and has retouching on one surface. (Plate VII, Figs. 12-13).

A different type of knife is a blade with retouching on both sides and the tip. The center is thick (13 mm.); the length is 70 mm. and the width is 30 mm. (Plate VII, Fig. 14).

Another triangular specimen from the disturbed area has one side of an unmodified flake. The other is deeply pitted and has an asymmetrical tip. (Plate VII, Fig. 15).

*Strike -a-lights.* 3 trianguloid specimens are probably strike-a-lights since the broad ends show some traces of battering. They were found in Layer II, Layer III, and the disturbed, respectively. Two of these have the tip removed (broken?) leaving an almost identical flake scar. This same flake scar is found on a thick unfinished triangular form 39 mm. by 30 mm. by 8 mm. and makes its identification as an unfinished strike-a-light more plausible. (Plate VIII, Figs. 1-4).

3 more unfinished triangular pieces may be either strike-a-lights or projectile points in process. 1 appears to be finished from the tip nearly half way to the base. The largest is 60 mm. by 39 mm. by 17 mm. (Plate VIII, Figs. 5-7).

*Other.* Drills, scrapers, blades, and retouched flakes comprise the remaining tool classes. The single drill has an expanded base. (Plate VIII, Fig. 8). It comes from Layer II. All 11 scrapers are end scrapers, ranging in size from thumbnail, 22 mm. in length to the largest, 51 mm. by 32 mm. (Plate VIII, Figs. 9-11).

There are a number of tips and bases of blades, but only 2 complete ones. 1 is teardrop shaped, 40 mm. by 27 mm. by 7 mm. The second has a concave base and concave sides and is 54 mm. by 26 mm. by 8 mm. (Plate VIII, Figs. 12-13). The fragments represent square and round bases, and range from carefully flaked thin (3 mm.) specimens to thick (8 mm.) crudely flaked ones.

15 flakes with retouching indicate their use as knives or scrapers.

In summary, an examination of the chipped stone artifacts shows 2 points from the ossuary, which have been assigned to earlier cultures. Only 1 unfinished triangular piece comes from Layer III. Layer II is identified by the presence of 2 Madison Points and the Jack's Reef Corner Notched may also be contemporary.

## CONCLUSIONS

The Orchid ossuary contained no grave goods. Therefore, conclusions concerning the cultural affiliation of the ossuary must be based on: (1) identification of the cultural material accidentally included within the ossuary; and (2) consideration of which if any of this

material belongs to the same culture as the ossuary. Then, too, there is less direct evidence afforded by comparison of the burial type with that of other sites of known culture and similar burial type. The problems of the cultural material will be considered first.

All pottery and projectile points recovered from the Unit A ossuary are associated with cultures earlier than that of the Iroquois. The less diagnostic artifacts such as scrapers and netsinkers occur throughout most of the long time span covered by the New York State culture sequence and are useless for determining cultural affiliation. Most of the artifacts from the ossuary can be found on sites of Point Peninsula or Owasco cultures elsewhere in New York State.

The pottery types Wickham Punctate and Jack's Reef Corded Punctate are Point Peninsula types (Ritchie 1965). The former is assigned to Early Point Peninsula times and had disappeared by the time represented by the Jack's Reef Site (Ritchie and MacNeish 1949:104, 118). Jack's Reef Corded Punctate was popular in the closing Point Peninsula era.

Carpenter Brook Cord-on-Cord and Levanna Cord-on-Cord are Owasco pottery types. Carpenter Brook Cord-on-Cord was confined to the Early Owasco while Levanna Cord-on-Cord was present until Late Owasco times (Ritchie and MacNeish 1949:108-110).

The projectile points which are assigned to the ossuary on typological grounds alone are of the Jack's Reef Corner Notched type. Others are considered to belong to earlier cultures. Some of the crude unfinished triangular pieces may be Levanna Points (Ritchie 1961:31) in process. The strike-a-lights are diagnostic of the Owasco culture (Ritchie 1944: 50).

If the pottery and projectile point types mentioned above are examined under the assumption that they are products of a single culture, the ossuary artifact complex--without reference to frequencies which would be meaningless because of the small sample--is most like that from the Carpenter Brook and Willow Tree Sites. (Ritchie and MacNeish 1949:118; Ritchie, Lenig, and Miller, 1953:22). These two sites, however, lack the Point Peninsula pottery types of Jack's Reef Corded Punctate and Wickham Punctate. The presence of several Owasco pottery types at them compared to their absence at the Orchid Site probably results from regional differences as well as sampling error.

These divergences between the Orchid Site and these two raise the question of whether the pottery from the ossuary should be considered to belong to a single component or whether artifacts of two distinct cultures, Point Peninsula and Owasco, have been mixed in the ossuary. It is relevant to note here that a similar set of types was found in Unit A, Layer II, and in Unit B, Orchid Site, and at the Martin Site, and these will be mentioned later. Then, too, the fact that the pottery types, which are restricted in time, are either Late Point Peninsula or Early Owasco suggests that they may be from a single culture since they are from a restricted time period.

Ritchie (1956:253) has proposed the Hunter's Home phase as the terminal Point Peninsula development transitional to Owasco, about A.D. 900. This phase includes the Willow Tree Site. While details of the Western New York sites of Hunter's Home, Bluff Point, Kipp Island #4, and White remain to be published with full descriptions, this newly postulated phase will probably accommodate the material from the Unit A ossuary at the Orchid Site.

Therefore, the artifacts from the ossuary can all be assigned to a single terminal Point Peninsula occupation of unknown but considerable duration around A.D. 900-1000.

The identification of the cultural material from the ossuary cannot be extended offhand to the ossuary per se since the artifacts might belong to an earlier time period. There is, however, some evidence to substantiate the association of the artifact-makers with the ossuary. First, the presence of several items of distinctive cultural material in the midst of carefully placed bundles is best explained as inclusions within the bundles rather than inclusions within the fill. Secondly, there is supporting evidence afforded by Layer II which followed the deposition of the ossuary and which contained pre-Iroquois material like that from the ossuary. If it could be shown that Layer II was intact over the entire ossuary and the evidence was existent at one time but was destroyed, then it could be shown

that the ossuary preceded Layer II and was either the product of the same or an earlier group. Where it could be observed, this was the case.

Finally, the absence of any good evidence which would place the ossuary at a later time with some Iroquois group leads to rejection of the possibility that this was an Iroquois burial. No Iroquois material came from the ossuary and no diagnostic Iroquois material from Layer II where it was intact over the ossuary. The 2 Madison points and the smooth, undecorated pottery rim from Layer II could be either pre-Iroquoian or Iroquois. There is no evidence for identifying the ossuary as Iroquois. This point requires emphasis due to the presence of two historic Iroquois burials in Unit B and the general association of ossuary burial with the Iroquois. An argument against the linking of the historic burials in Area B and the ossuary in Unit A is the presence of grave goods in the former and the absence in the latter, indicating a different time period. It is common knowledge that ossuaries containing grave goods are attributable to historic times since the grave goods contain European items whereas the absence of both grave goods (as distinct from accidental inclusions) and European goods is associated in examples so far reported. The Orchid ossuary is prehistoric and there is no prehistoric Iroquois village known from the immediate area. The archaeological evidence, although limited and unsatisfactory, indicates that the ossuary should be assigned to the same culture as that of the material recovered from it and above it, that of a terminal Point Peninsula-like group around the tenth century A.D.

There was extensive occupation not only at the Orchid Site but also at other places along the Niagara River by related groups during Late Middle and early Late Woodland times. At the Orchid Site itself, the material from the ossuary and Layer II above it corresponds to some of the midden from Unit B. In fact, the Layer II midden was probably at one time continuous across the whole Orchid Site, with Area A being the most heavily occupied and therefore the center on the site for the late Middle Woodland occupation. In both Units A and B, there was beneath Layer II a brown midden zone designated Layer III. Layers II and III in Area B were not as distinct and clearly separated as in Unit A, and contained many more projectile points of earlier cultures and fewer potsherds. Nevertheless, the occupation by pottery-making groups seems limited to the same ones who lived in Unit A and deposited their bones beneath their living area.

Other local material similar to that from the Orchid Site Unit A was found at the Martin Site (White 1964) on Grand Island 4 miles away. The Martin Site pottery lacks rims with interior cordmarking, but has all of the pottery and projectile point types, which are considered to belong with the ossuary. Ritchie has examined the Martin Site material and regards it as highly similar to terminal Point Peninsula (personal conversation).

The Burnt Ship Site on the northern part of Grand Island in Buckhorn State Park also shows close resemblances. Material from this site was collected by Ed Kochan, formerly of Niagara Falls, and is now part of the collections of the State University of Buffalo. Both the Martin and Burnt Ship Sites deserve fuller description because they have produced many more materials than the Orchid Site. Neither has burials, but the high degree of similarity between the Orchid material and certain artifacts from Martin and Burnt Ship indicates some part of their occupations to have been contemporary, although both of the latter sites contain types of materials missing from the Orchid Site.

Surface collections from both sides of the eastern end of Lake Erie and the Niagara River contain material similar to that from the Orchid Site, unit A. The collections undoubtedly cover a broad time span and possibly even that assigned to the Middle and Late Woodland Periods (Point Peninsula and Owasco cultures) further east in New York. They bear out certain observations on pottery made at the Niagara Frontier sites mentioned above. There is repeatedly in collections from a single site types of both late Point Peninsula and Early Owasco provenience elsewhere. The assignment of specific rims to a type of one of these cultures rather than to a similar type of the other is often an arbitrary decision. Cordmarking without cordwrapped stick impressions as well as with them is predominant. Dentate stamping is extremely rare. Fine, cut-in incising like that on the few

incised sherds from Orchid Unit A occurs on some larger rims where it is clear that neither the precise technique nor the motif are Iroquois.

In brief, there is considerable evidence in the Niagara Frontier for an occupation of unknown duration by people having a culture similar to that elsewhere identified as the Hunter's Home phase of terminal Point Peninsula. The artifacts recovered from the ossuary and Layer II belong to this occupation as do similar materials from Unit B, Orchid Site, Martin Site, Burnt Ship Site, and others from the Buffalo-Fort Erie area known only from surface collections. These sites and collections may cover a considerable time span.

In the Niagara Frontier no burial type had been associated with the sites mentioned above until the find here discussed. Therefore, the present example is the only instance of ossuary burial or any type of burial in this area during terminal Point Peninsula times.

Before considering comparative evidence from the Niagara Frontier at other time levels or from other areas at the same time level, late Middle Woodland times, it is necessary to consider what attributes mark ossuary burial. The term ossuary burial when used with precision refers to the reinternment of multiple burials, never predominantly primary, in a common grave during the ceremony of the Feast of the Dead.

From ethnohistorical descriptions it is possible to point out a number of specific attributes, which can be recognized archaeologically as well.

The Feast of the Dead occurred among the Huron, Neutral, and the Upper Great Lakes Algonkians. The Huron descriptions are most detailed (Tooker 1964:134-140) and include an eyewitness account at Ossossane in 1636. Since this site has been examined archaeologically as well, the Ossossane ossuary offers especially fruitful clues for identifying true ossuary burial. Accounts by Champlain and Sagard describe the Huron ceremony in general but fail to elaborate on details, which might be useful to recognize this burial type archaeologically. The Neutral practiced the Feast of the Dead but no recorded observation remains. The Algonkian Feast of the Dead (Hickerson 1960:88) is described with considerable detail but is not clearly associated with ossuary burial either ethnohistorically or archaeologically. It is clear then that the Feast of the Dead was a ceremony which varied somewhat among the Huron, Neutral, and Great Lakes Algonkians. Ossuary burial where associated may have varied also. However, the only accurate description of the behavior leading to a particular ossuary burial is at Ossossane among the Hurons, and this ossuary provides the model for recognizing the burial type.

At Ossossane there are certain attributes, which will aid in identifying an ossuary as the reburial custom of the Feast of the Dead. First, there is among the Huron the manner in which the bones are described as being deposited and which can also be inferred from the arrangement in the ground. The bundles of bones wrapped in skin or in bags were tied to poles crossing a scaffold above the pit. The bones were to be thrown into the pit the next morning. When one bundle fell before the throwing had started, everyone hurried to drop the bones into the pit, keeping the robes. People in the pit used poles for moving the bones about after they fell. A comparison of Kidd's (1953) excavation report with this account seems to bear out in the ground what might be expected from the verbal account, bones "in extreme miscegenation, best exemplified perhaps by crania lying inside pelvic cavities, ribs perforating eye sockets, and by one case in which four or five vertebral columns lay side by side in the most inexplicable association." But there was evidence that some bundles remained partly intact. Only 2 extended burials and 2 bundles had been set in place. On the strength of this description, both archaeological and historic, we can suggest that an ossuary burial should show signs of interments being placed on the bottom and bundles of bones having been thrown in helter-skelter on top, with occasional traces of bundles remaining. A second attribute of the Feast of the Dead at Ossossane which might be tested by archaeological finds is the presence of a scaffold recognizable from postmolds around the sides of the ossuary.

A third characteristic of ossuary burial is the periodic occurrence of the Feast of the Dead including the accompanying reburial. The French note the interval between

ceremonies as being about twelve years for the village or villages where dead were to be reburied. (Tooker 1964:134). If there is frequently a coincidence between moving a village and holding the Feast as Tooker (1964:135) considers, then there would be one or two ossuaries per village provided only a single village participated since villages were usually moved at intervals of between 10 and 30 years, (Ibid. 42). Investigation of this attribute as it is manifested in the number of ossuaries per village should help clarify the distinction between ossuaries and other burial types.

The derivation of a definition of ossuary burial from a single recorded instance in Huronia may be too restrictive since there is evidence in the historic records that there was variation in the customs followed by those groups who practiced the Feast of the Dead. Among the Neutral for example, Brebeuf and Chaumont noted in 1640 that it was customary to keep the corpse in the house as long as possible. After it was reduced to bone they continued to keep the bones in the houses until the Feast of the Dead. This appears to be quite different from the Huron custom of primary interment in the ground. This reference and others by seventeenth century observers give indications that the variations of ossuary burial must be defined using criteria derived from ethnohistorical accounts as well as ones observable in archaeological excavations. But ossuary must be separated from other burial types like multiple bundles of multiple articulated individuals placed in a single pit. If these distinctions are not made and if the Feast of the Dead ceremony is not recognized through archaeological criteria, the history of ossuary burial will remain obscure-unless it is already too late, for the number of intact ossuaries remaining is probably very limited. Countless ossuaries have been removed but poor excavation techniques have resulted in a dearth of information. There is a tendency to identify every mass bone deposit as an ossuary and assign it to Iroquois. While the association with Iroquois and with Huron and Neutral in particular is well established, it cannot be validly extended to every newly discovered ossuary. There are ossuaries which have not been identified satisfactorily as Iroquois or pre-Iroquois either through their cultural contents or through their association with a nearby village of known culture. The continued designation of these as Iroquois will prevent the recognition of a pre-Iroquoian provenience should such exist. Furthermore, because the ceremonies accompanying these burials apparently did not include preservable grave goods, unsatisfactorily identified ossuaries like Orchid will continue to present insolvable problems (unless osteological analysis can aid in identification).

In making comparisons of other sites to the Orchid ossuary, it is in most instances impossible to use the term ossuary with the desired precision or to note those attributes which have been deemed diagnostic of this burial type. Where information is available on any of the attributes previously mentioned, it will be included. A list of those sites referred to as ossuaries and located in the Niagara Frontier and adjoining New York State is given in Table III. This list is most nearly complete for the Niagara Frontier. It includes such references as "bone pits," "Neutral burial mounds," and other obscurities which require that the list be used cautiously. Information outside the Niagara Frontier is highly selective and includes only those sites where there seems to be some reliable information that an ossuary existed even though the number of individuals is in one case as low as three.

In the Niagara Frontier on both sides of the Niagara River a number of so-called ossuaries have been found. Wright (1963) has pulled together information on many of these sites and gives the original references. Most of these have shared the unhappy lot of those farther west in Neutral country and in Huronia. In contrast to the Neutral ossuaries reported in the Grand River area (Ridley 1961), the majority of those in the Niagara Frontier are prehistoric. Only 7, 4 of which are west of the river contained artifacts of the Historic Period.

The burial customs are quite divergent at these 7 sites and the selection of them as well as the omission of certain others is a reflection of the terminology of the original investigators which has become local archaeological folklore. Gould and Kienuka (Porter

TABLE III

	<u>REFERANT</u>	<u>LOCATION</u>	<u>SOURCE</u>	<u>REMARKS</u>
<u>Niagara Frontier</u>				
<u>Historic</u>				
1.	Cayuga	Cayuga, Ont.	Wright 1963:70	
2.	Gold	Cambria, N.Y.	" 1963:66	
3.	Kelly	Lewiston, N.Y.	" 1963:70	
4.	Point Abino	Point Abino, Ont.	" 1963:70	
5.	Port Colborne	Port Colborne, Ont.	" 1963:70	
6.	Porter, Kienuka	Lewiston, N.Y.	" 1963:61	
7.	St. Davids	Stamford, Ont.	" 1963:70	May be mixed class
<u>Prehistoric</u>				
8.	Black Rock	Niagara East River, N. Y.	Parker 1922:550	
9.	Collins	Collins, N.Y.	Houghton 1909:309	
10.	Fillmore Cemetery	Clarence, N.Y.	" 1909:312	
11.	Giess	Divers Lake, N.Y.	McCarthy & Newman 1961:136	
12.	Hiller Road	Clarence, N.Y.	Unpublished information, Rochester Museum	
13.	Kienuka	Lewiston, N.Y.	Wright 1963:61	At least three
14.	Nursery	Lancaster, N.Y.	White ..1961, n.d.	Two ossuaries
15.	Oakfield	Oakfield, N. Y.	" 1961:53	
16.	Orangeport	Gasport, N.Y.	Wright 1963:70	Two ossuaries
17.	Sawmill Road	Clarence, N.Y.	Sublett, n. d.	
18.	Shelby	Shelby, N.Y.	White 1961:56	Ossuary and cemetery
19.	Sherkston	Sherkston, Ont.	Bryant 1909:469	
20.	Tonawanda Island	Niagara East River	Wright 1963:69	
21.	Wehrle Drive	Clarence, N.Y.		
22.	White's Island	Niagara East River	Houghton 1909:317	About 50 individuals, "burial mound-mode of burial distinctly Neutral"
<u>Chautauqua County</u>				
23.	McCullough	Gerry, N.Y.	Guthe 1958:43	Three ossuaries
24.	Sheridan	Sheridan, N.Y.	" 1958:47	
25.	Westfield	Westfield, N.Y.	" 1958:36	

ossuary) were probably true ossuaries because the confusion of thrown bundles is noted. Both contained a large number (at least 100?) individuals. The Kelly ossuary contained 30 individuals. In contrast to those ossuaries, the burials at Point Abino, Port Colborne, and Cayuga are classed together because "all contained bone pits as nuclei, all had separate graves in the vicinity, and all contained burial presents, largely of European manufacture" (Bryant 1912:469). Bryant contrasts these with the "St. David's ossuary" at Stamford and Van Son Cemetery on Grand Island. He claims that the last two sites "contained one or more small pits with a few bundle burials packed in them, surrounded by a large number of separate graves" (Ibid.). There is no farther description of the St. David's burials. Houghton (1909) has described the Van Son Cemetery as containing 16 bundles out of a total of 59 burials. A typical bundle was buried singly. But there were 2 instances of multiple

bundles. 1 consisted of 2 skulls and several skeletons. The second contained 4 bundles which had been placed in position. Houghton did not refer to these as ossuaries and therefore Van Son has not been regarded as having ossuary burial. The absence has even been used (Wright 1963:214) to point out the non-Neutral affiliation of this site. The burial pattern at Van Son is very similar to that at Silverheels where Parker (1922:214) describes multiple, extended, bundle, and ossuary burial. The ossuaries contain (a) 3 bundles, (b) 2 bundles and 1 flexed, and (c) 9 individuals tangled in no recognizable position. Thus Van Son and Silverheels seem to share a common burial pattern in which a small number of bundle burials occur. Probably the St. David's ossuary belongs with this group also but the decision is not clear. Therefore, it has been left with the other 6 sites on which ossuary burial is the burial type reported.

These 6 ossuaries can be dated from the kinds and amounts of trade items between A.D. 1600 and 1640 and probably closer to the latter date. They contrast with the Van Son and Silverheels burials which fell within the same historic period but have predominantly single flexed burials and occasionally a few multiple bundles. A third burial type in the Niagara Frontier during this same time may be represented by the Kleis, Ellis, and Bead Hill cemeteries. Only a small number of graves from the Kleis Site have been excavated with sufficient care to make it clear that each of the twelve was a single flexed burial (White 1960). All 3 have cemeteries. The historic Ripley Site in Chautauqua County exhibits a very similar set of burial customs.

The number of sites having prehistoric ossuaries dated from the absence of European goods and grave goods totals 15, but probably is considerably in excess of that. Most of these cannot be dated any more closely and most cannot be assigned to a particular village. There are enough cases of both ossuaries and single burials being associated with the same village that the presence of one type cannot be interpreted as the absence of the other.

The burial pattern is not known from the latest Intermediate Period Eaton site which probably just preceded the advent of European trade goods. 2 somewhat earlier sites, Buffam St. and Shelby both had cemeteries of individual burials, in the first case to the north of the earth ring and in the second case, within the ring itself. Each of these sites has some evidence to suggest that another burial practice may have existed as well. A bone pit was found a mile and a half from the Shelby Site (White 1961:58) and a mound within or near the Buffam St. enclosure. The use of the term "mound" here is taken from Houghton and his predecessors, to whom the term did not imply a burial mound of early or middle Woodland provenience.

Just as it was noted that burial practices in Early Historic times were varied for the area and even on many sites, so some sites of the Intermediate Period show several classes of burials. The number of occurrences of both on a single site might be increased considerably by systematic testing.

The Nursery Site has yielded two deposits of bones one of which the writer excavated. The latter contained an estimated 15-20 individuals (18 is most reliable until an osteological analysis can be made) each as a separate bundle placed in the pit side by side just one layer thick. 2 graves were found which had been emptied of most of their bones, presumably for burial in one of the ossuaries, but 1 flexed individual remained intact.

Northeast of the Nursery Site, about 3 to 4 miles, there is a group of earth ring sites and ossuaries. Most of these have been reported in several site surveys and have been dug and redug. Some have been destroyed by the extensive gravel operations around Clarence. E. G. Squier (1851:78-80) reported 2 cemeteries and 2 ossuaries. One of the latter near the present Fillmore Cemetery was later dug by Wende. In recent years, ossuaries have been found on Hiller Road and Sawmill Road in Clarence. Either of these sites may be the second one which Squier noted.

At the Hiller Road Site 6 or 7 ossuaries were destroyed by gravel operations. Salvage work was done by the Rochester Museum under the direction of Alfred K. Guthe. The writer was a member of the crew. Hiller Road #1 was torn out by the machinery and the

dislodged bones were later collected. 22 to 26 individuals were represented. Hiller Road #2 was excavated and contained an estimated 14 individuals based upon a preliminary analysis. The burial pattern was similar to Nursery and seems to have been a single layer of placed bundles. There were no indications of a scaffold. The other ossuaries were not recovered. It is probable that individuals from the Henry Long Site nearby were included in these burials.

The Sawmill Road ossuary was located in 1964 and excavated by Richard McCarthy and the Ondiara Chapter of the Buffalo and Erie County Historical Society. The bones were reburied almost immediately and the osteological examination by Audrey Sublette (n.d.), a graduate student in Physical Anthropology, was cursory because of the time limit. A minimum of 32 individuals were represented.

Earlier examples of ossuaries are all questionable for a variety of reasons. Some of the Kienuka ossuaries probably belong with the prehistoric occupation at this site. This occupation is called Transitional Iroquois in the Niagara Frontier (White 1961:116) and is on an early Middleport Horizon in Ontario. Reports covering the Oakfield Site suggest a multiple burial of some sort. At least there is no evidence of cemeteries associated with the Transitional Iroquois culture type. Therefore, multiple secondary burials seem to have a history in the Niagara Frontier back to A.D. 1100-1200. However, no description is available for a site of this time period.

The other prehistoric ossuaries on the list have even less information to contribute to any systematic study of burial customs because there is insufficient description to allow comparison and there is no associated material to assist in placing the ossuary temporally. The mode of burial ranges from a "burial mound" in which Houghton (1909b:317) indicates "the mode of burial was distinctly Neutral" to the Orangeport #2 ossuary which contained 135 individuals "intermingled in the greatest confusion" (Houghton 1912:474).

There is no information on the extent to which most of the above sites have been tested to search for various forms of burial. In some cases the village site is unknown and all information is derived from a single ossuary. Keeping these limitations in mind, it is useful for comparative purposes to distinguish the following classes of burial in the Niagara Frontier:

#### I. Ossuary

A. Ossuaries only. Single burials do not occur except where there is evidence of removal for mass burial. One or two ossuaries contain a large number of individuals.

B. Multiple ossuaries with single burials. Several ossuaries contain the remains of small numbers of disarticulated individuals. "Bone pits as nuclei, separate graves in the vicinity" (Bryant 1912:460).

II. Mixed. Single primary burials outnumber graves containing multiple bundles of a small number of individuals. The latter may contain placed or thrown bundles.

III. Cemetery. Primary interments usually of a single individual occur exclusively.

The class of ossuary burial with 2 subdivisions may eventually be found to be 2 distinct classes or the 2 may intergrade so that lumping is required. At present there is a suspicion that the difference may be the result of excavation techniques.

In summary, all three classes of burials occur in the Niagara Frontier in Early Historic times. Late in the preceding Intermediate Period cemeteries with individual burials occur at 2 sites which may also have some sort of mass burial. Prior to this in the Intermediate Period, several ossuaries composed of either thrown or placed bundles of numerous (but less than 100?) individuals characterize sites although single burials are present, whether preliminary to the ossuary ceremony or permanent interments is uncertain.

Some related burial pattern existed during the Early Period of Iroquois development. Thus multiple secondary interments can be traced back in the Niagara Frontier to within 100 to 200 years of the terminal Point Peninsula culture to which the Orchid ossuary has been tentatively assigned.

A comparison of burial customs to the west where the Neutral were located is possible through the recent work of Ridley (1961) who has summarized Neutral archaeology in the Brantford, Ontario, area. There is considerable variation in historic Neutral burial customs also during the first half of the seventeenth century. Unfortunately, numbers of individuals buried in ossuaries were rarely recorded nor were other details which would allow careful comparison with the Ossossane-type ossuary.

At the historic Sealy Site there were single burials, an ossuary 9' by 15' by 4 1/2', containing bundles, and 4 graves, one of which contained 6 bundles (Ridley 1961:11). The historic Walker Site had at least 11 ossuaries containing from 2 to 70 individuals as well as single burials (Ridley 1961:13). No separate single burials are reported. Several of the ossuaries had special structure such as an artificial clay floor and a separation into two vertical compartments.

The preceding description suggests that historic Neutral ossuaries were smaller in size, more numerous per site, and more complex in structure than those in Huronia. Most sites have both multiple secondary interments and individual burials. The burial customs at the various sites could be grouped into 2 of the 3 classes found in the Niagara Frontier. The third class, cemeteries composed entirely of individual burials, is not reported. No Neutral ossuary attains the size of those in Huronia in historic times and does not even equal the size of the historic Gould and Kienuka ossuaries in the Niagara Frontier.

To the east of the Niagara Frontier the Genesee Valley is well known for individual burials in a number of cemeteries. Very few descriptions of these burial excavations exist. An early account by Houghton (1922:413) points out that many of these burials have been dug and redug, making it often impossible to determine the original burial position. Wray (1953: 62) shows that ossuary burial begins as late as the 1675-1687 period where he presumably is referring to the Beal and Bunce burials (Houghton 1922). At these sites a few individuals (one case of 28) are buried together in a single grave where either bundles can be distinguished or where the bones of all individuals are intermingled. The practice of secondary burial at this late date may have been taken over from Ontario captives located among the Seneca after the defeat of the Huron and Neutral. At least secondary burial is overshadowed by single burials at earlier sites. But late in the seventeenth century the mixed class of burials occurs in the Genesee as it did earlier in the Niagara Frontier and the Brantford area. This class of burial, predominantly single burials in a cemetery together with several multiple interments of a small number of individuals as placed bundles or thrown bundles, occurs then from Brantford, Ontario, to Victor, New York.

Evidence is lacking to test the antiquity of the mixed class of burial across this area. The importance in noting its distribution in historic times is two-fold. First, it is frequently stated that the presence of ossuary burial among the Ontario Iroquois and the absence among the Seneca indicates a sharp contrast in the burial customs of these two areas. Such statements take only part of the data into account. Our examination of the distribution of burial classes from Huronia to the Genesee shows that ossuary burial as the sole type of burial is rare outside Huronia and the mixed class is much more frequent among the Ontario Neutral and in the Niagara Frontier. In the latter area cemeteries are also present. In other words, there is a gradual change from ossuary burial in Huronia to cemetery burial in the Genesee. Secondly, these gradual changes in the distribution of the three classes of burials need to be considered in the light of possible evidence for the Feast of the Dead.

The Jesuit accounts refer to the Feast of the Dead among the Huron and Neutral of the early seventeenth century. It is likely that the burial customs distinguished above as two subclasses of ossuary burial are part of the Feast of the Dead referred to by the Jesuits because of their coincidence with historic accounts both in time and space. The differ-

ences between the subclasses might result from variation in the time interval between ceremonies. Differences in population size might lead to ossuaries of different size also. Then, too, the number of individuals would vary if there were customary differences in what groups participated in a single reburial. Nevertheless, the available evidence suggests that these differences were minor enough for the Jesuits to recognize the similarity of the ceremony.

The separate graves with primary burials, which are in the minority on sites where subclass B occurs, either represent individuals who were not included in the Feast of the Dead when it took place or, more likely, an alternative burial procedure which increased in popularity with the distance from Huronia until it replaced the Feast of the Dead.

Identification of the mixed class of burial with the Feast of the Dead is speculation. The multiple secondary interments which occur as a minor part of this class could not represent the Feast of the Dead for a village or several villages since the number of deceased is too small. They must represent a smaller segment, perhaps a clan, or the accumulated remains of a longhouse. Multiple secondary burial is still a popular alternative burial custom but is dominated by primary burial. The secondary burials are probably not associated with the Feast of the Dead ceremony, but may represent vestiges of it which have continued only in the form of some burials. Therefore, it seems that in the first half of the seventeenth century the distribution of the Feast of the Dead coincides with the distribution of class 1, ossuary burial. It extended barely east of the Niagara River on several sites which may have belonged to the Neutral (White 1961:37).

At earlier periods ossuary burial was much more widespread. Prehistoric ossuaries reach the Genesee River on the east and southeastern Michigan, on the west (Fitting 1965:74, 14). This distribution of ossuaries cannot be claimed to represent the distribution of the Feast of the Dead. The latter refers to a ceremony specific in time and place with described functions. In earlier times, an antecedent form must have had both similarities and differences. The outstanding similarity is the manner of the disposal of the dead. To mention only one important difference, gifts were not interred with the dead in prehistoric times. The antecedent form of the Feast of the Dead was widespread while the Feast itself was of limited distribution. Careful excavation may allow description of the antecedent form in the future.

To return to the interpretation of ossuary burial at the Orchid Site, a major problem revolves around making a case for ossuary burial at a date as early A.D. 900-1000, the date for the cultural material. If this can be demonstrated convincingly, it remains to explain such a large number of individuals at this early date. Contemporary evidence on the first point comes from the Kipp Island #4 burials where Ritchie (1965:262-265) excavated 125 individuals in 29 graves which were part of a larger burial area. The majority of individuals were secondarily interred as bundles or cremations. The largest multiple bundle contained 14 individuals. The Kipp Island burials, some of which are ossuary burials, subclass B, provide an antiquity equal to that suggested for the Orchid Site. In southeastern Michigan, a similar antiquity is suggested (Fitting 1965:95). But in both instances the number interred in multiple ossuaries is small whereas several hundred were buried in the Orchid ossuary. No other prehistoric ossuary in the Niagara Frontier begins to approach this size. In Ontario, the Fairty ossuary (Anderson 1963:28, 32) with 512 individuals dates at approximately A.D. 1400. Two ossuaries combined at Tabor Hill (Churcher and Kenyon 1960:253, 256) total 213 at a period of A.D. 1250.

While no trend with respect to size increase or decrease has been recognized in prehistoric times, still an ossuary of several hundred individuals as early as A.D. 900-1000 seems unusual. The identification of the Orchid ossuary as contemporary with terminal Point Peninsula implies that it was associated with a preagricultural group on the verge of adopting farming. This characterization is based on the absence of corn in the Orchid Site midden or ossuary, as well as at Martin (White 1964) and Kipp Island (Ritchie 1964:540). It gains support from the selection of the locations of these sites for conditions other than

those favorable for farming. The Orchid and Martin locations are associated with extraordinary fishing conditions. The group which occupied these sites may be compared to nonagricultural Iroquois. There is ethnohistorical evidence that the Feast of the Dead and presumably ossuary burial were practiced among the seventeenth century nonagricultural Algonkian Nipissing, Saulteur, and Amikwa (Hickerson 1960, 1963). General accounts suggest a wide distribution among related nonagricultural groups. Any relevance which the Feast of the Dead among certain nonagricultural Algonkians after 1641 has for its presence among pre-agricultural Niagara Frontier Indians seven centuries earlier will not be found in historic relationships as is the case in historic times where the Huron were the probable source for the Nipissing ceremony. Rather it will be found in showing that some such ceremony may have had similar functions among groups with related settlement patterns even though they are widely separate in times.

The seventeenth century Algonkian settlement pattern consisted of a summer fishing village occupied by a number of totemic kindred. According to Hickerson (1963:67), "It is likely that the personnel of the summer villages split into a number of winter hunting bands whose organization was based upon cohering patrilineal extended family fragments of the totemic kindreds."

The ceremonies among the Algonkian stressed the invitation to confederated Nations, each of which was probably the equivalent of an autonomous community occupying the summer fishing village in common (Hickerson 1963:67). The Feast of the Dead served to promote community solidarity as well as to initiate and strengthen alliances among related communities, the forerunner of the tribe with its multikindred village. But the ties reached beyond this to other tribes both related and unrelated linguistically to the host tribe. In the description of the Feast given by the Nipissing, both the Huron and Saulteur were present, but it seems likely that neither brought the bones of their deceased. Hickerson (1960:89) summarizes the problem of the identity of the bones being interred as follows: "Perhaps peoples in very close confederacy or in the process of merging interred their dead jointly, but it would seem that among autonomous allies participation in the gift giving, dancing and feasting which marked the ceremony was sufficient to affirm friendship and alliance."

The settlement pattern of the pre-agricultural groups of late Point Peninsula times can only be suggested. In the Niagara Frontier the Orchid Site midden, the Martin Site, and other extensive remains along the Niagara River already mentioned suggest a heavy occupation for fishing, an activity of the spring, summer, and fall. It cannot be demonstrated that any of these are summer fishing villages the equivalent of that of the Algonkians. But it has been shown that two centuries later the settlement pattern of probable descendant groups was to assemble in a summer farming village which probably broke up during the winter into extended family hunting groups (White 1963:9). It is likely that the change which accompanied the introduction of farming during the period between A.D. 900-1100 was from a summer fishing village to a summer farming village. This adds some support to the speculation that the settlement pattern of late Point Peninsula times was generally similar to that of the 17th century Algonkians. The latter group practiced the Feast of the Dead. It is conceivable that a late Point Peninsula group could have had a similar ceremony for the reburial of the deceased of several communities.

In conclusion, the only evidence for the identification of the Orchid Site ossuary is the cultural material which cannot be associated with the bone with complete certainty. The cultural material from the ossuary is terminal Point Peninsula of A.D. 900-1000. It has been pointed out that ossuary burial had already been recognized as nearly that old in several places. Furthermore, similarities between the settlement patterns of the preagricultural Point Peninsula and nonagricultural Algonkian groups suggest that the identification as Point Peninsula is not out of the question. Therefore, I favor the conclusion that the Orchid ossuary is terminal Point Peninsula.

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#### N. Y. S. A. A. ANNUAL MEETING, 1967

1. Dates: April 28 - 30
2. Place: The Holiday Inn, Saratoga Springs, New York
3. Tentative hotel rates: Singles, \$10.00; Doubles, \$15.00
4. N.Y.S.A.A. registration fee, \$2.00
5. Annual dinner fee, about \$6.00
6. Program Chairman, Beulah Rice. Committee: Percy W. Dake, William H. Rice, Thomas P. Weinman. Communications concerning the submission of papers for the archaeological program should be addressed to Mrs. William H. Rice, RD 1, Gansevoort, New York.
7. Local Arrangements Committee: Dorothy Taylor, Chairman, and Percy W. Dake
8. Host Chapter: Auringer - Seelye

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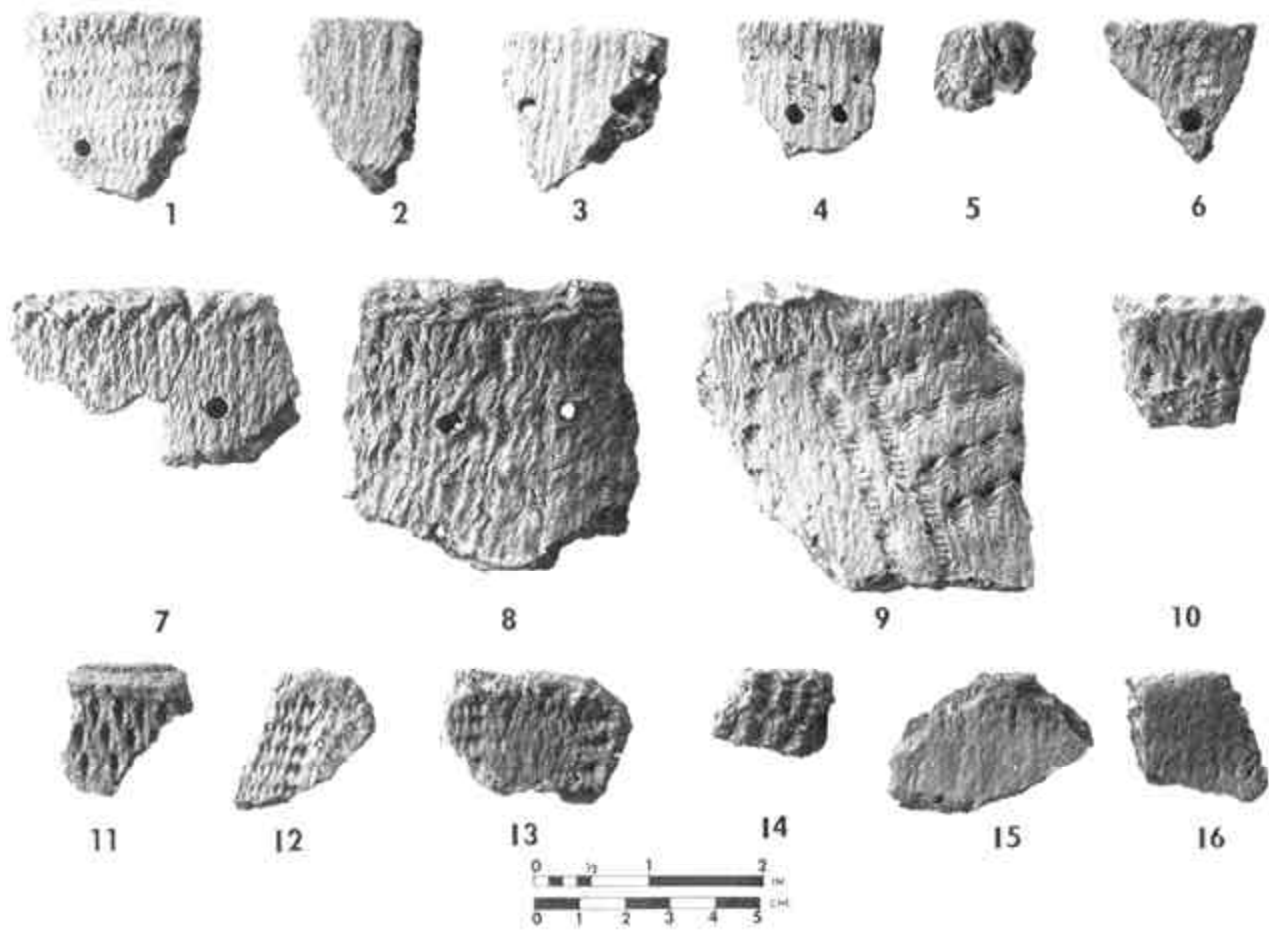


PLATE I. RIM SHERDS

Figs. 1-8, Wickham Punctate Rims. Figs. 9-11, Jack's Reef Corded Punctate.  
Figs. 12-14, Carpenter Brook Cord-on-Cord. Figs. 15-16, Levanna Cord-on-Cord.

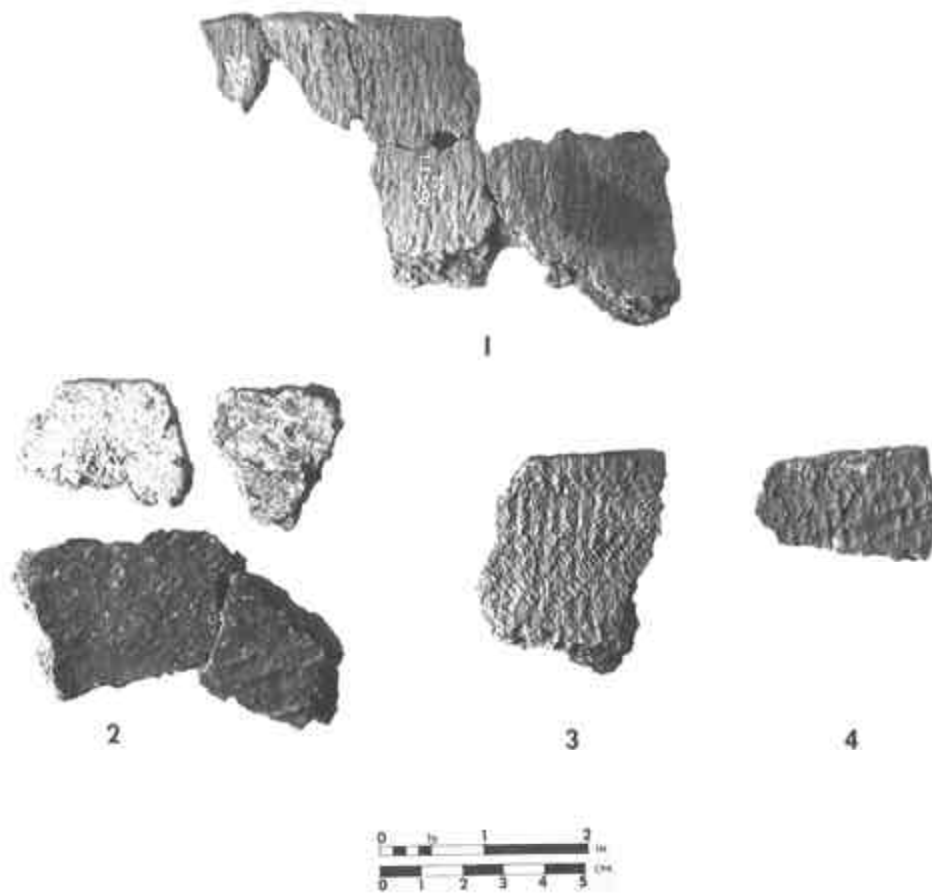


PLATE II: SHERDS MARKED ON EXTERIOR AND INTERIOR SURFACES

Fig. 1, Exterior surface of Wickham Punctate plus the corded interior shown in Plate III, Fig. 1. Fig. 2, Rim and two body sherds from the same vessel. The body sherds show the interior surface. Fig. 3, Exterior surface of Carpenter Brook Cord-on-Cord plus interior markings shown in Plate III, Fig. 3. Fig. 4, Exterior surface of rim cordmarked on both surfaces.

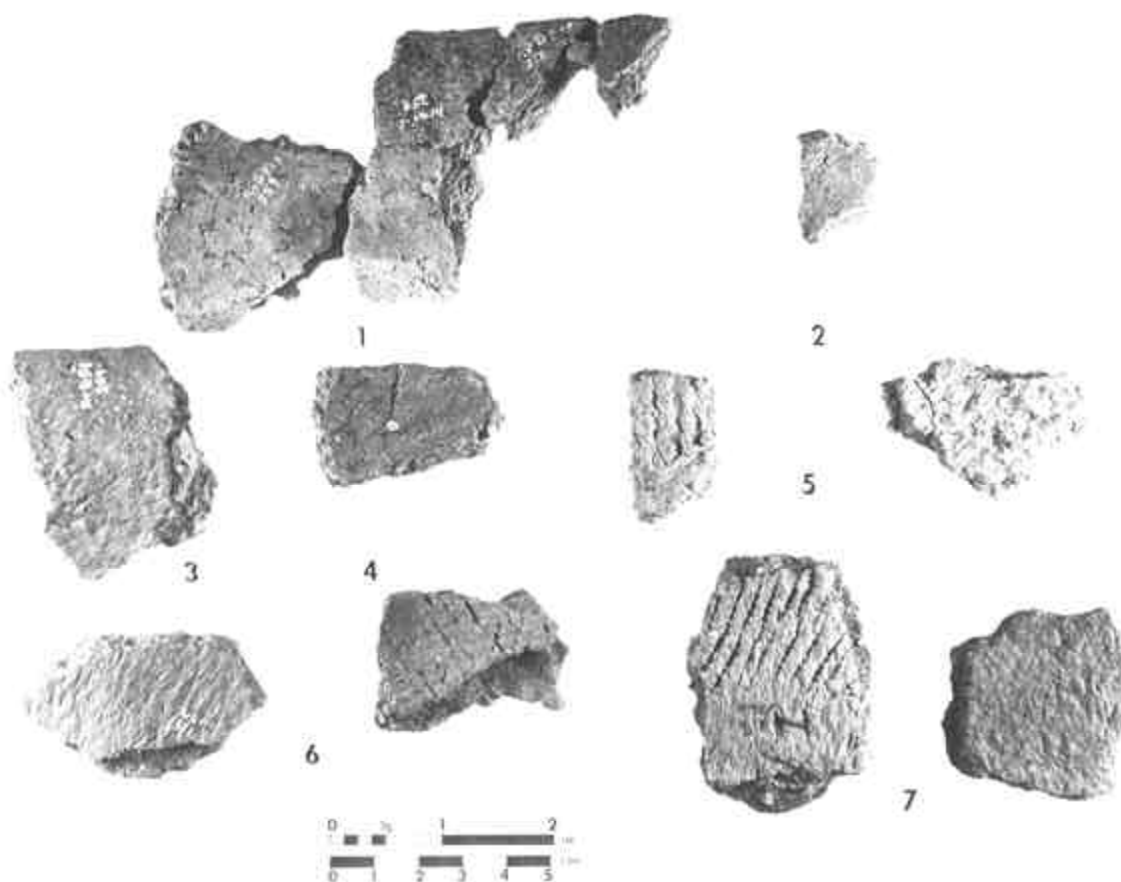
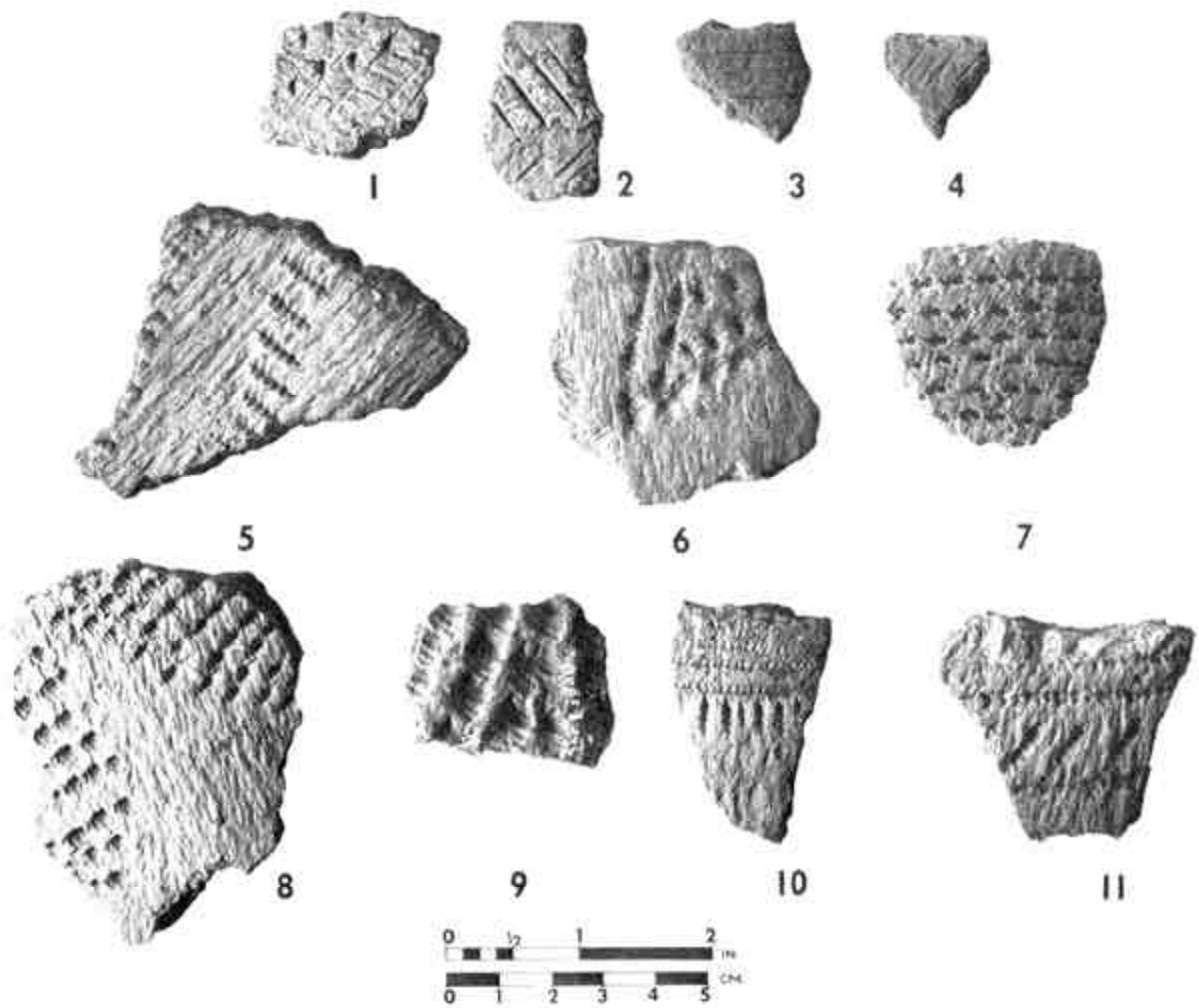


PLATE III: POTTERY SHERDS

Fig. 1, Interior surface of rim shown in Plate II, Fig. 1. Fig. 2, Rim smooth on both surfaces. Fig. 3, Interior surface of rim shown in Plate II, Fig. 4. Fig. 5, Two sherds from the same vessel marked on both surfaces. The second shows the interior surface. Fig. 6, Two sherds from the same vessel marked on both surfaces. The second shows the interior surface. Fig. 7, A decorated sherd and a body sherd from the same vessel marked on both surfaces. The second shows the interior surface.



## PLATE IV

Figs. 1-4, Incised sherds. 1, 2, and 4 are rims. Figs. 5-11, Examples of neck decorated sherds

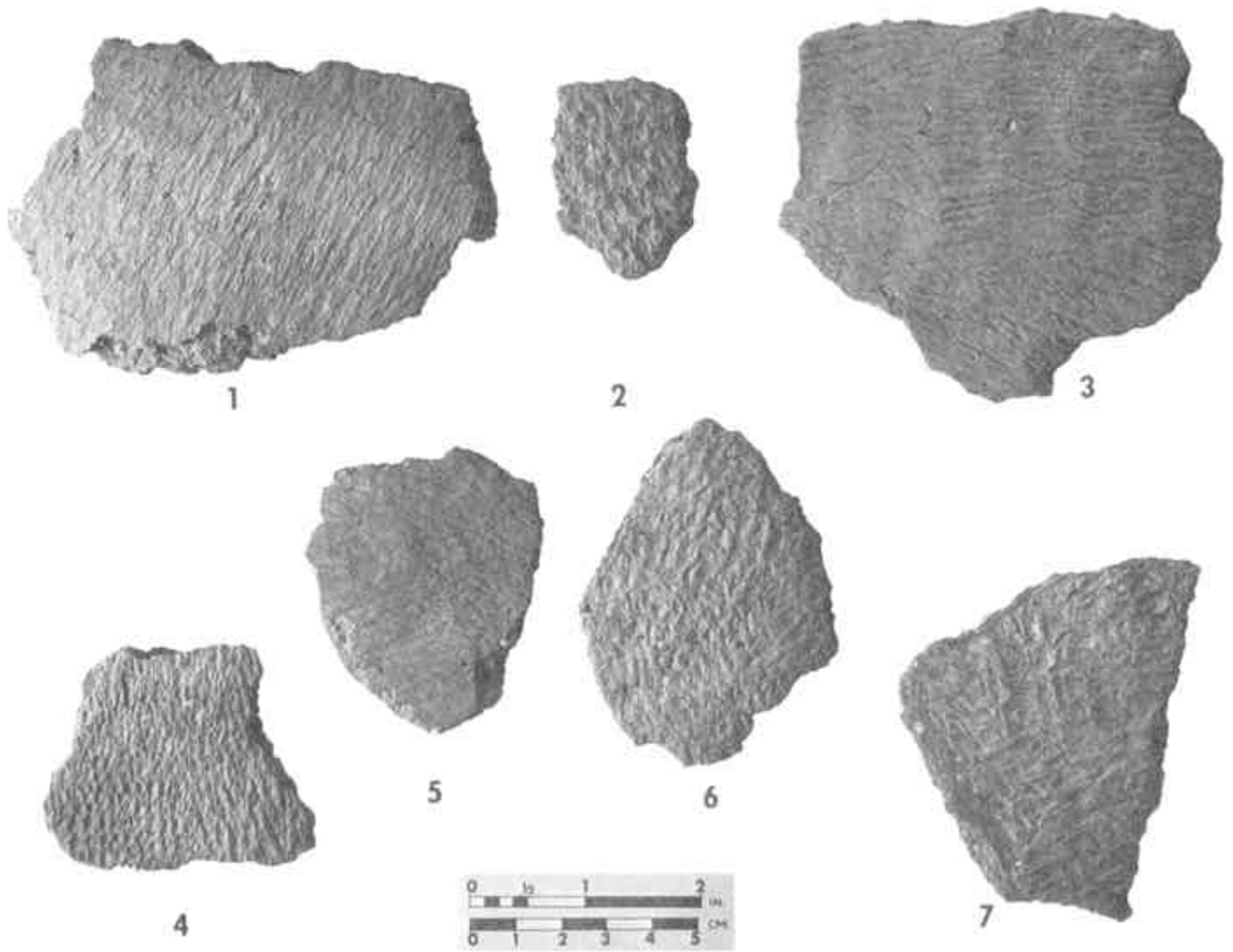


PLATE V: BODY SHERDS WITH CORDMARKED EXTERIORS

Figures 3 and 7 are cordwrapped dowel.

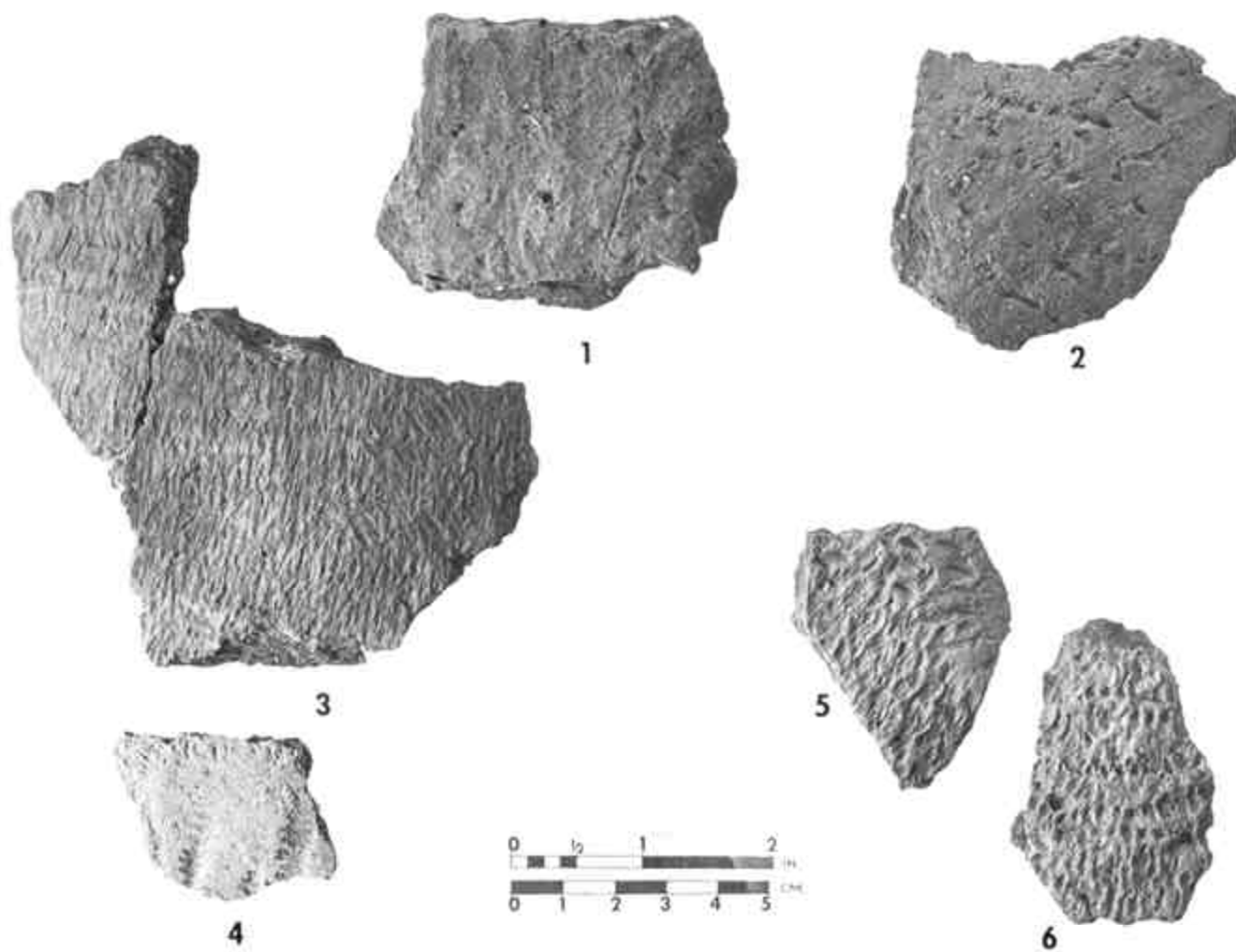
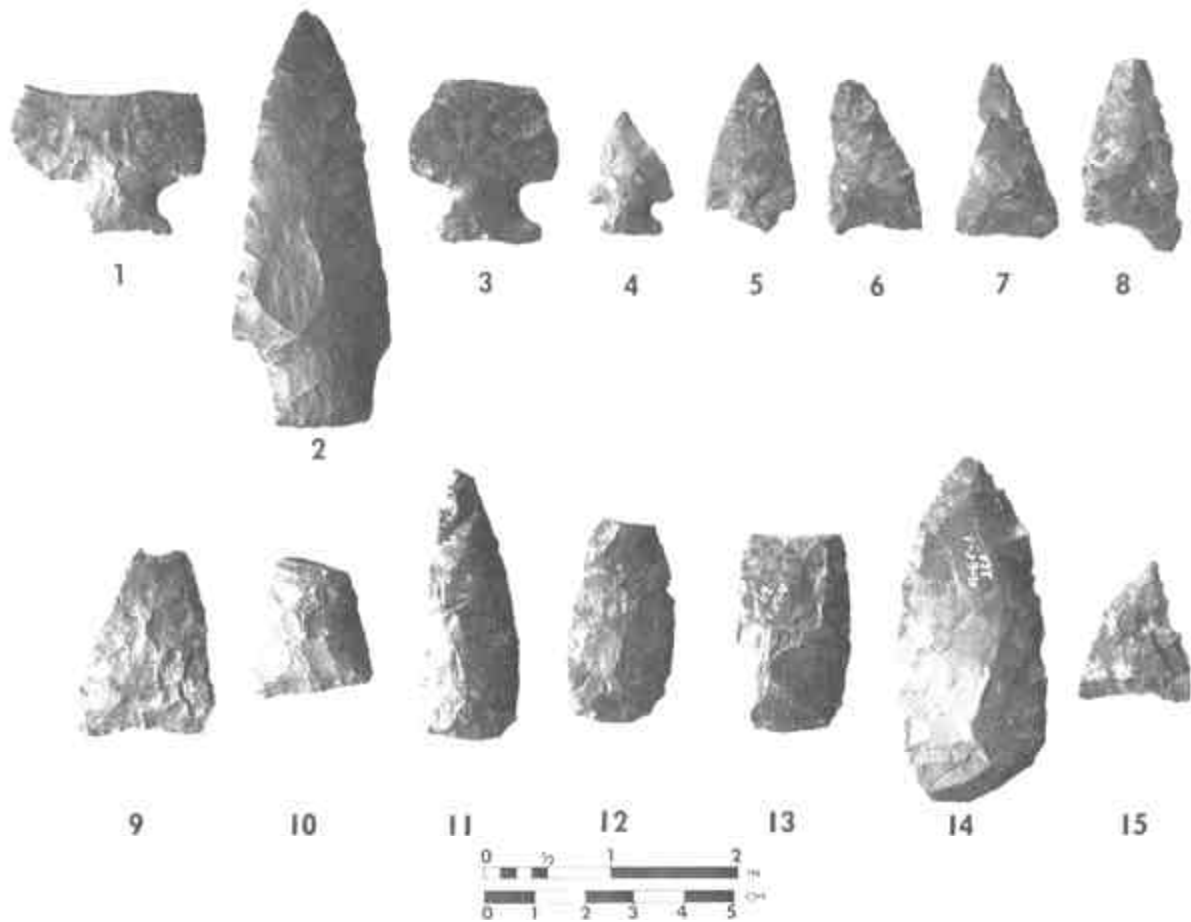


PLATE VI: BODY SHERDS WITH MARKED EXTERIORS

Figs. 1 and 2 are unidentifiable. Figs. 3 and 4 are cordwrapped dowel.



## PLATE VII: POINTS AND BLADES

Fig. 1, Base of Perkiomen Broad. Fig. 2, Genesee Point. Figs. 3 and 4, Jack's Reef Corner-Notched. Fig. 5, Possible Jack's Reef Corner-Notched with broken base. Figs. 6 and 7, Madison Points. Figs. 8 and 9, Unfinished triangular points. Fig. 10, Base of possible knife. Fig. 11, Triangular knife. Figs. 12 and 13, Rectanguloid base. Fig. 14, Knife. Fig. 15, Triangular point(?).

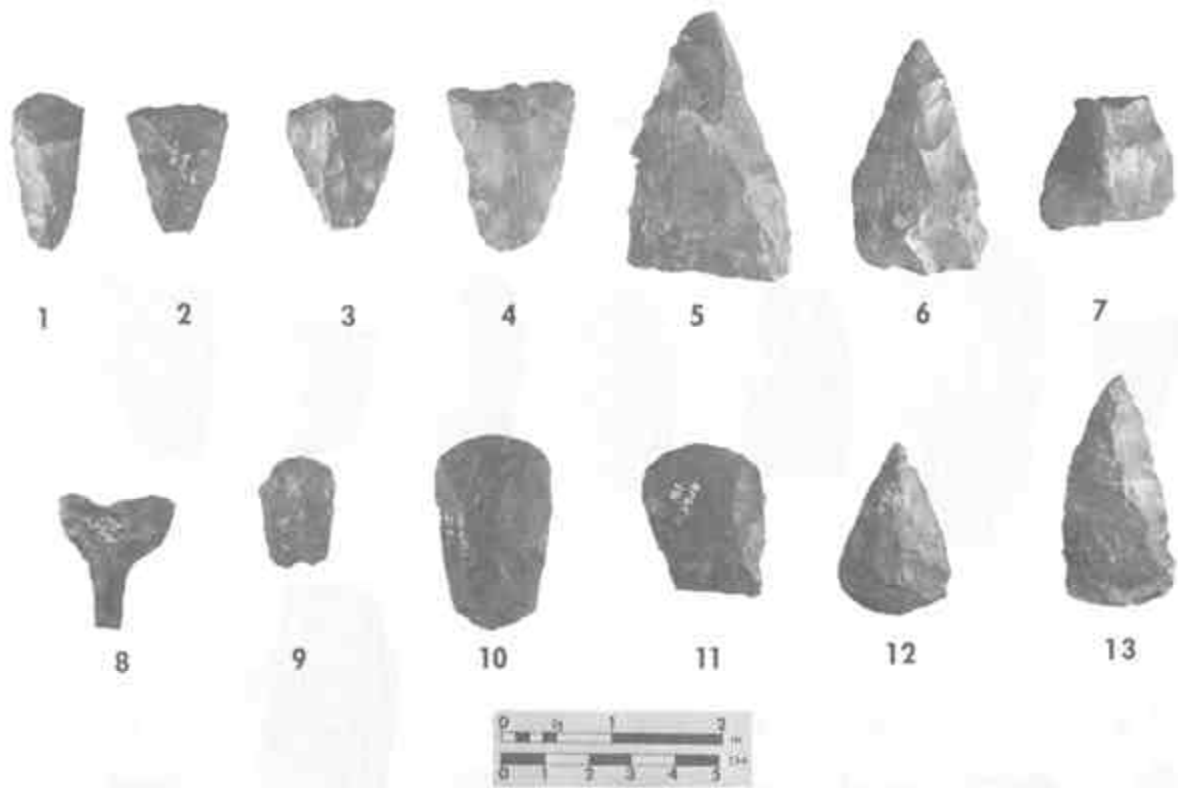


PLATE VIII: OTHER LITHIC ARTIFACTS

Figs. 1-4 Strike-a-lights. Figs. 5-7, Unfinished triangular points. Fig. 8, Drill. Figs. 9-11, End scrapers. Figs. 12 and 13, Blades.



PLATE IX: VIEW OF PARTIALLY COMPLETED OUTLINE OF UNIT A, ORCHID OSSUARY  
The surface is that left by the bulldozer cut, after clearing but before excavation. The intact surface over the east edge of the ossuary is shown on the left.



PLATE X: COMPLETED OUTLINE OF OSSUARY WITH NORTH TO THE LEFT  
The European intrusive pit is in the foreground.

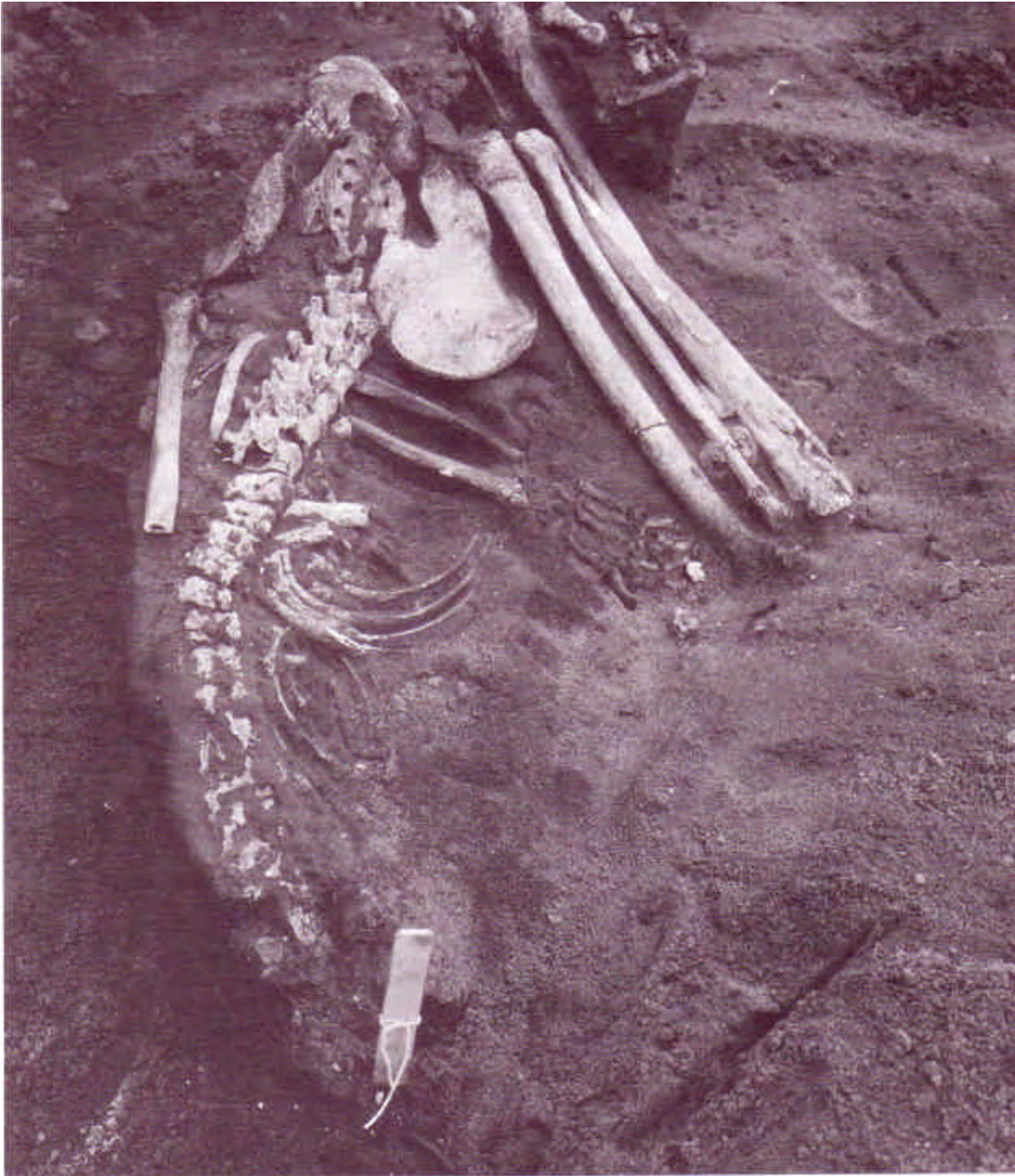


PLATE XI: FEATURE X, UNIT A, ORCHID OSSUARY

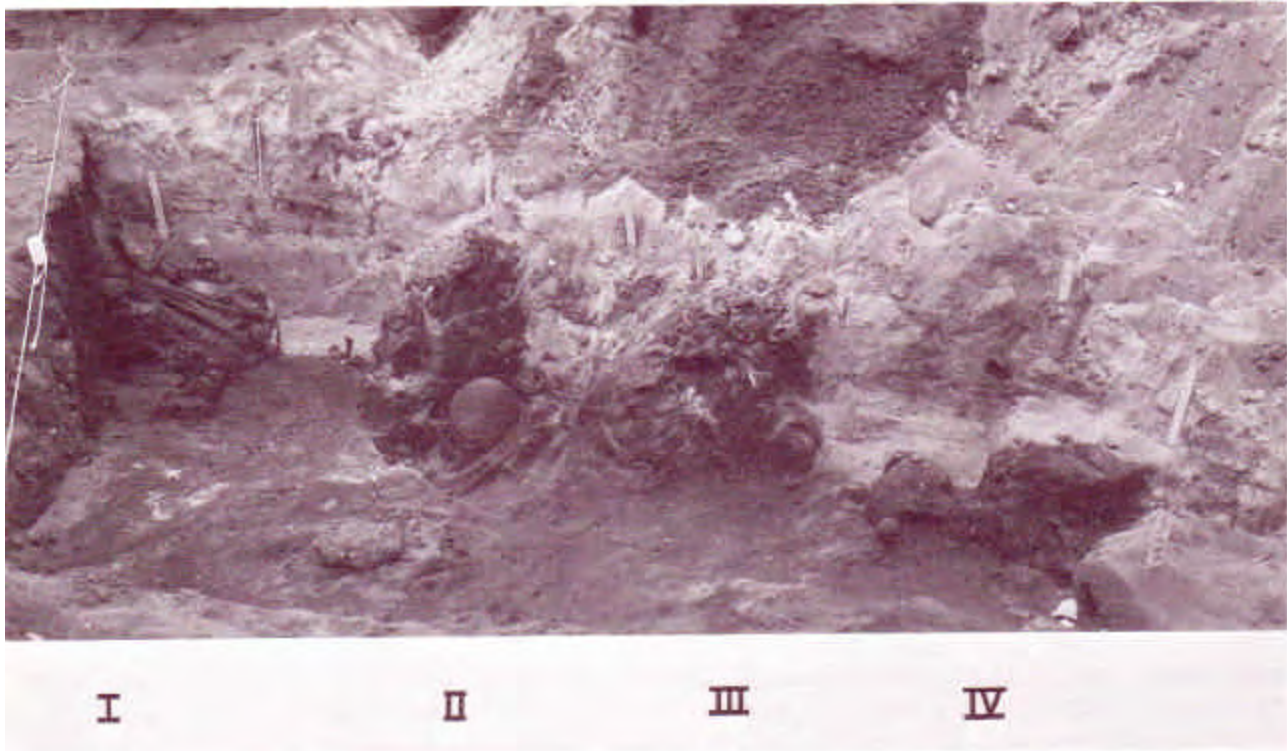


PLATE XII: SOUTHEAST PERIMETER BURIALS I-IV, UNIT A, ORCHID OSSUARY



PLATE XIII: VERTICAL PROFILE OF UNIT A, ORCHID OSSUARY

## HOLOCENE HISTORY OF THE LOWER HUDSON RIVER ESTUARY

Walter S. Newman

Queens College

Archeological investigations of the Croton Point shell middens by Salwen (1965), Brennan, Olafson, and others, reveal that the midden was already being accumulated some 5800 years ago ( $5863 \pm 200$  years, Y-1315). Thus the lower Hudson Valley was already estuarine some 5800 years B.P. when salinities were at least as high as they are today. During the past year, I have been investigating Ring Meadow, on the west shore of the Hudson River adjacent to Iona Island, about 1 mile south of the Bear Mountain Bridge, near the south edge of the Hudson Highlands. The marsh is covered by *Typha angustifolia* while the marsh level is very near mean high water. Peat is encountered to depths of at least 27 feet below mean high water. Basal peat from three levels of Ring Meadow have been C-14 dated.

<u>Lab. #</u>	<u>Date (Years B. P. )</u>	<u>Depth (below mean high water)</u>
L-1038B	2500+250	9.0
L-1038C	4080±220	21.0
L-1038D	4630±470	27.0

Pollen analyses of the deepest boring so far (27 feet) indicate the boring terminated in the C-1 (*Quercus-Tsuga*) pollen zone while the presence of the foraminifer *Trochammina inflata* throughout the entire length of the bore suggests that salinity has remained relatively constant in the area during the past 4600 years. The latter suggestion seems inconsistent with a sea level some 27 feet below its present level. Was Hudson River runoff appreciably less at that time because of greater evapotranspiration? Paleontological investigation of bores from the extreme western end of Long Island Sound find the pelecypods *Pandora trilineata* and *Mercenaria campechiensis* associated with the upper B (*Pinus*) and C-1 (*Quercus-Tsuga*) or C-2 (*Quercus-Carya*) pollen zones. Since these mollusks do not live in the area today but are extant further south along the Atlantic Coast, it appears that the hypsithermal in southern New York State was a real interval and, perhaps, explains the paradoxical salinity data for the lower Hudson River estuary.

Work is continuing at Ring Meadow where we will attempt to bore still deeper.

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Erratum. In "The Burnt Hill Phase" by Robert E. Funk, Paul L. Weinman, and Thomas P. Weinman, which appeared in *The Bulletin*, #37, July 1966, on p. 9, second paragraph, the last sentence should read, "It may be that we here witness a late and localized survival, somewhat modified, of an early widespread trait."

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