

# The Norton Site (AfHh-86): The Rediscovery of a Late Iroquoian Village in London, Ontario

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*The Norton site (AfHh-86) is a large Late Ontario Iroquoian village site located in a public park, overlooking the Thames River in London, Ontario. Portions of nine closely spaced and regularly aligned longhouses were recorded in 1988, during excavations conducted by Archaeological Services Inc. within a 1 00m long utilities right-of-way that crossed the site. While artifactual finds were relatively few, they suggest that the site was occupied between A.D. 1400 and 1450. As the village had been unknown to researchers for half-a-century, the Norton site is of considerable importance for the reconstruction of the late prehistoric settlement sequence of southwestern Ontario.*

## Introduction

In the fall of 1987, Archaeological Services Inc. conducted an archaeological resource assessment of a proposed water main on behalf of the City of London Public Utilities Commission. This study resulted in the rediscovery, in Kensall Park, of an Iroquoian village overlooking the Thames River in east central London (Figure 1). Following preliminary investigations salvage excavations were carried out during the spring and summer of 1988. As the site had been disturbed by agricultural activity the ploughzone was removed by Gradall. The exposed subsurface settlement features and post moulds were then recorded and excavated by hand. A final report on the excavations and subsequent analyses has recently been completed (Archaeological Services Inc. 1992).

The Norton site was first mentioned in a footnote to W.J. Wintenberg's monograph on the Lawson site (Wintenberg 1939:2). Wintenberg apparently did not visit the Norton site himself, which resulted in his incorrectly locating it in London Township rather than in Westminster Township. Following this brief mention of the site it slipped back into obscurity. Despite the intensive activities of both archaeologists and artifact collectors in the London area, the site's location remained unknown until its rediscovery in 1987 (Cooper 1992).

The Norton site is situated below the northern

flank of the Westminster Moraine, on a promontory overlooking the Thames River Valley. The excavation area, within the impact zone of the pipeline route, was situated approximately six to ten metres from the modern break in slope. The structural remains documented within this trench (Figure 2) probably represent the northernmost segment of the village. Nevertheless, it is likely that the northern side of the promontory has been truncated by erosion and by extensive earth-moving activities associated with the nearby sewage treatment plant. Any portions of the site located in this area have therefore been destroyed.

The eastern extent of the village is defined by a deep channel cut by a former tributary of the Thames River. The western edge of the site, delineated by a palisade, is not defined by any topographic features. The location of the southern edge of the site, in the absence of further investigation, cannot be estimated. It is conceivable, however, that the full extent of the village is in the order of 1.5 ha to 2.0 ha, as is suggested by the excavation and survey of other roughly contemporary sites (Dodd *et al.* 1990:350).

## Settlement Patterns

Portions of nine longhouses, with ninety-six associated features, together with a single-row palisade at both the eastern and western limits of the site, were documented by the investigations (Robertson 1992). All the houses were oriented perpendicularly to the excavation trench, prohibiting the complete exposure of any one structure. A single large midden was also uncovered. The relatively small size of the excavated area prevents reconstruction of the village's developmental history, yet certain general statements may be made.

Perhaps the most remarkable aspect of the site is the dense packing of the houses, eight of which are separated from one another by a distance of no more than two metres. The proximity of the structures, together with their consistent northwest-southeast orientation, suggests that they are contemporaneous, representing a more or less single phase of construction at the northern limits of the village. A similar pattern (Figure 3) has been documented

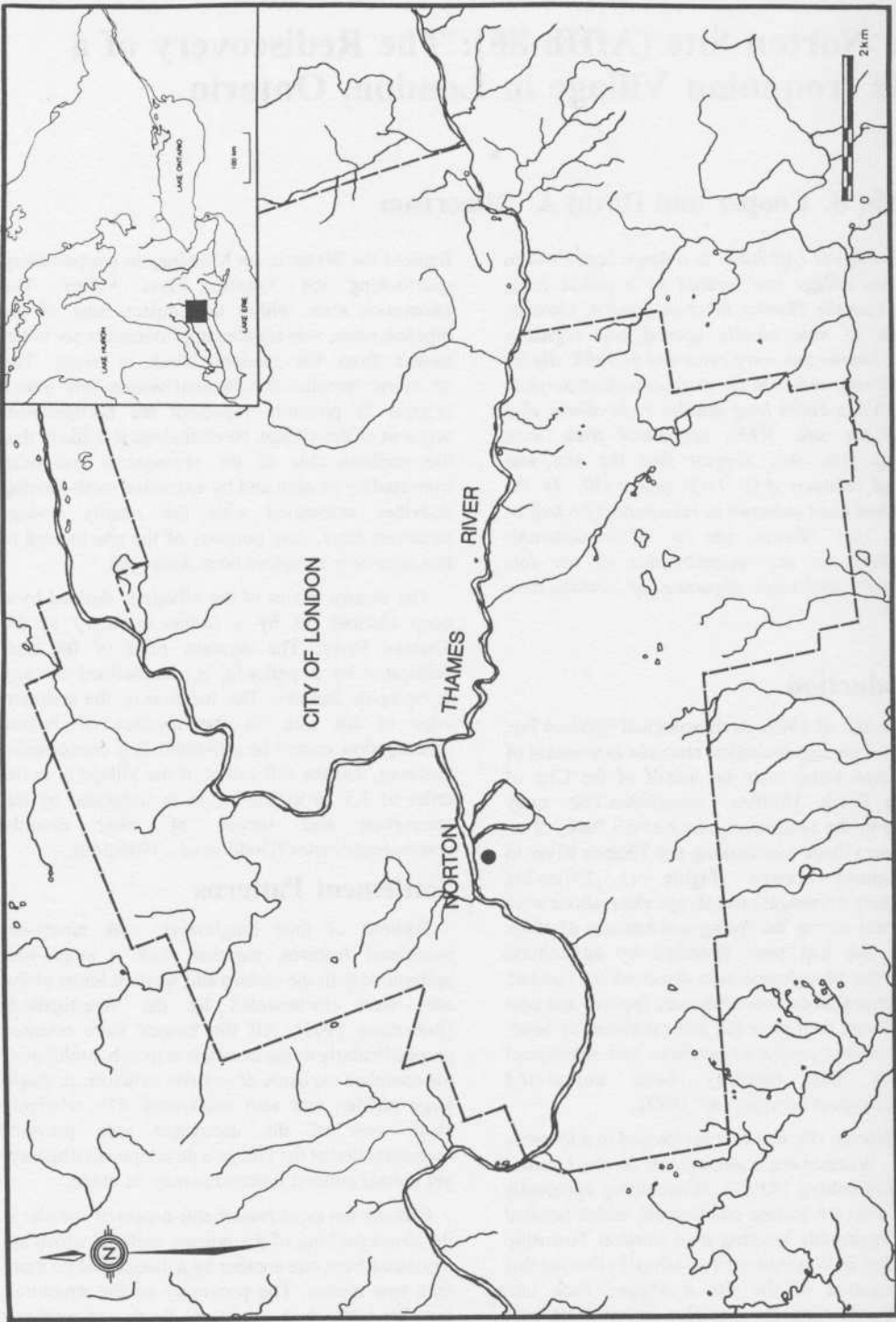


Figure 1 Location of the Norton site (AfHh-86) in the City of London, Ontario (After Timmins 1990).

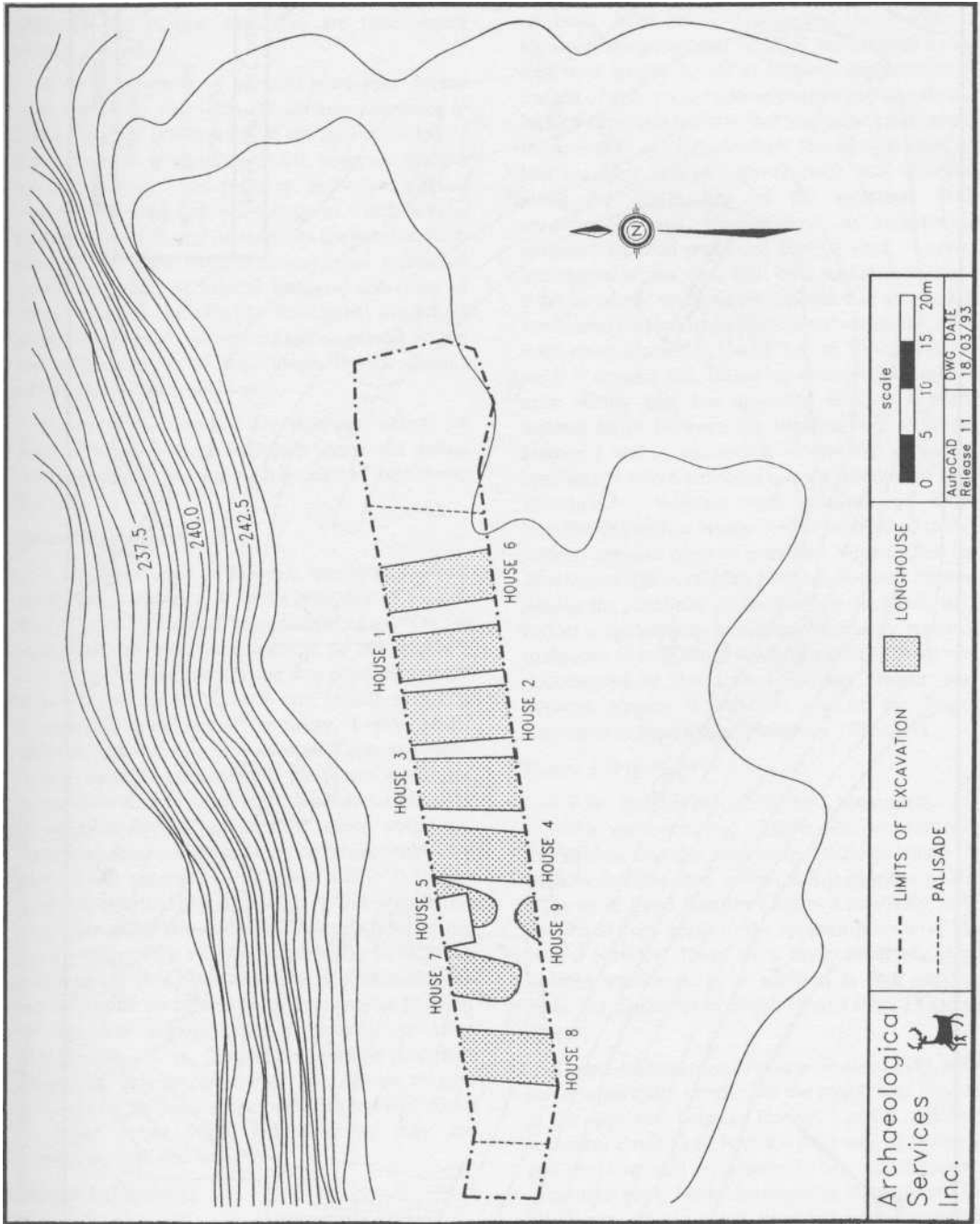


Figure 2 Norton site (Afrh-86), plan.

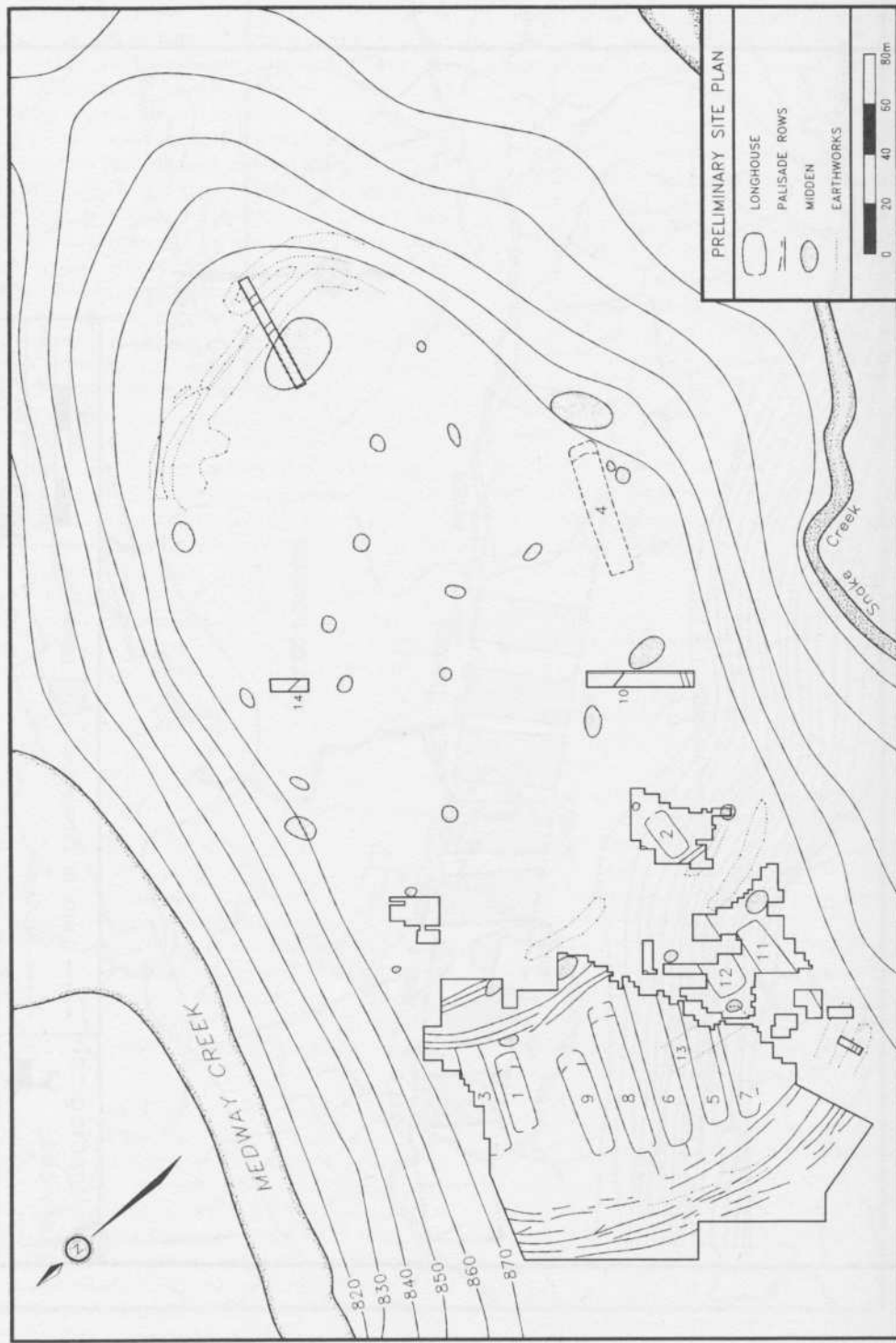


Figure 3 Lawson site (AgHh-1), plan (from Pearce 1984).

within the northwestern expansion of the nearby and possibly related Lawson site (Pearce 1980, 1984), although the Norton structures are much more closely spaced.

A similar pattern of parallel rows may extend over the entire site, if the inhabitants attempted to make the most efficient use of the area encircled by the palisade. It is equally possible, however, that the excavated longhouses form an individual aligned cluster of houses within a village in which several clusters with different orientations are present. Each cluster may well have represented an individual corporate group of related lineages, sub-clans or clans (Warrick 1984:46-48), the distinct identity of which was, in part, maintained and expressed, within the wider context of the village, by the distinct orientation of its residences.

Summary descriptions are provided below for each of the longhouse segments uncovered during the excavations, proceeding from east to west across the site.

**House 6** (Figure 4)

A 9m long section of House 6, measuring 6.1 in width, was excavated. With the exception of a single pit (Feature 1), located immediately adjacent to the west wall, the excavated segment of this structure was devoid of features. While it is possible that the exposed portion of House 6 was simply sterile in comparison to the rest of the house, it may also be that the structure was only used on a seasonal basis. Warm weather occupation of the house would not necessarily have resulted in the formation of hearths or ash pits since a regular heat source would not have been required and cooking activities could have taken place outdoors (Williamson 1983). It is also remotely possible that House 6 is in fact not a house at all, but rather two additional palisade rows on the eastern edge of the village. Nevertheless the distance between the two rows of posts is consistent with the widths of the other longhouses, and the position of the few isolated interior posts is certainly reminiscent of a longhouse central corridor. Moreover, a comparison of the House 6 post diameters with those of the palisades and with those in other house walls indicates that they are consistent with the latter.

**House 1** (Figure 5)

A 10m long section of House 1, which was 6.6m in width, was exposed to the immediate west of House 6. The excavated segment of this structure contained the greatest concentration of features of any of the house sections exposed. A single hearth on the centre line of the house was apparently the focus of considerable activity, being associated with

as many as seven ash pits, twenty-two pits and nineteen isolated posts. No internal partition walls or bunk lines were documented in House 1. However the peripheral areas of the internal living area were largely devoid of features, suggesting that the use of space was relatively organized despite the lack of structural features that may have constrained movement or activity. A single line of nine more or less regularly spaced support posts was recorded along the centre line of the structure. Wall construction was characterized by alternating sections of paired posts and straight lines of posts, interrupted on the west wall by a probable entrance 0.8m in width. Immediately outside this entrance, a substantial midden had accumulated within the 1.5m wide space separating House 1 from House 2 to the west. It appears that, following abandonment of this area of the site, the mounded midden deposits washed down between the standing wall posts of Houses 1 and 2, accounting for the thin spread of organic soil which extended into the interiors of both structures. Whether the residents of other households (such as House 2) also contributed to this midden remains open to question. Nevertheless the development of a midden between the two houses, despite the proximity of the bluff to the north, may reflect a tendency to minimize the energy required to dispose of household waste. A similar pattern was documented at the Late Iroquoian Draper site, between Houses 2 and 17, two of the longer structures in the village (Finlayson 1985:309).

**House 2** (Figure 5)

A 9.5m long section of House 2, measuring 5.8m in width, was uncovered. There were no hearths in the central corridor and only fourteen relatively shallow features: one ash pit and thirteen pits. The majority of these features form two relatively well-defined activity areas in the western portion of the central corridor. There were seven relatively large isolated interior posts in addition to four support posts, the diameters of which ranged from 15 cm to 38 cm.

A semi-subterranean structure (Feature 119), with its entrance ramp oriented to the south, was located in the open area between Houses 2 and 3, utilizing structural elements of both the west wall of House 2 and the east wall of House 3. Semi-subterranean structures have been documented throughout the Northeast and are being recorded with increasing frequency on early fourteenth to middle sixteenth century Iroquoian sites in Ontario (MacDonald 1992). They are rectanguloid features with a lobed projection that together form a keyhole plan. The lobe extension normally contains a ramped entrance which leads down to the lower floor in the main

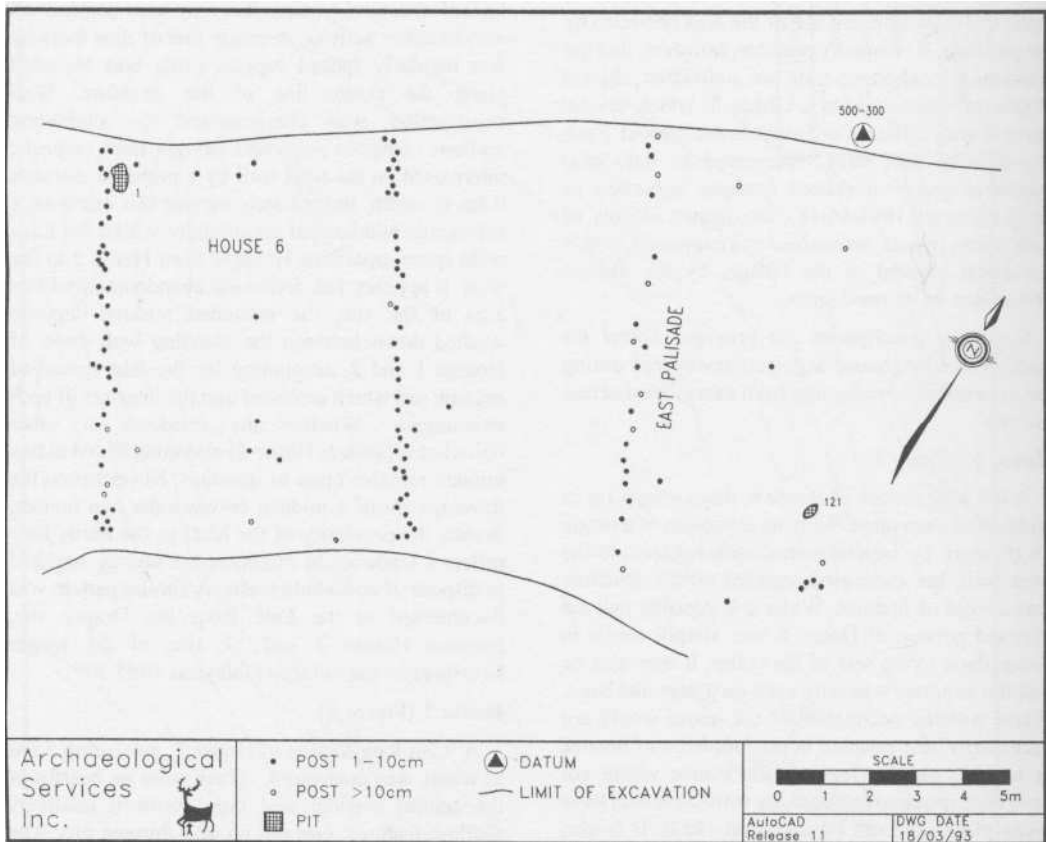


Figure 4. Norton site (AfHh-86), East Palisade and House 6

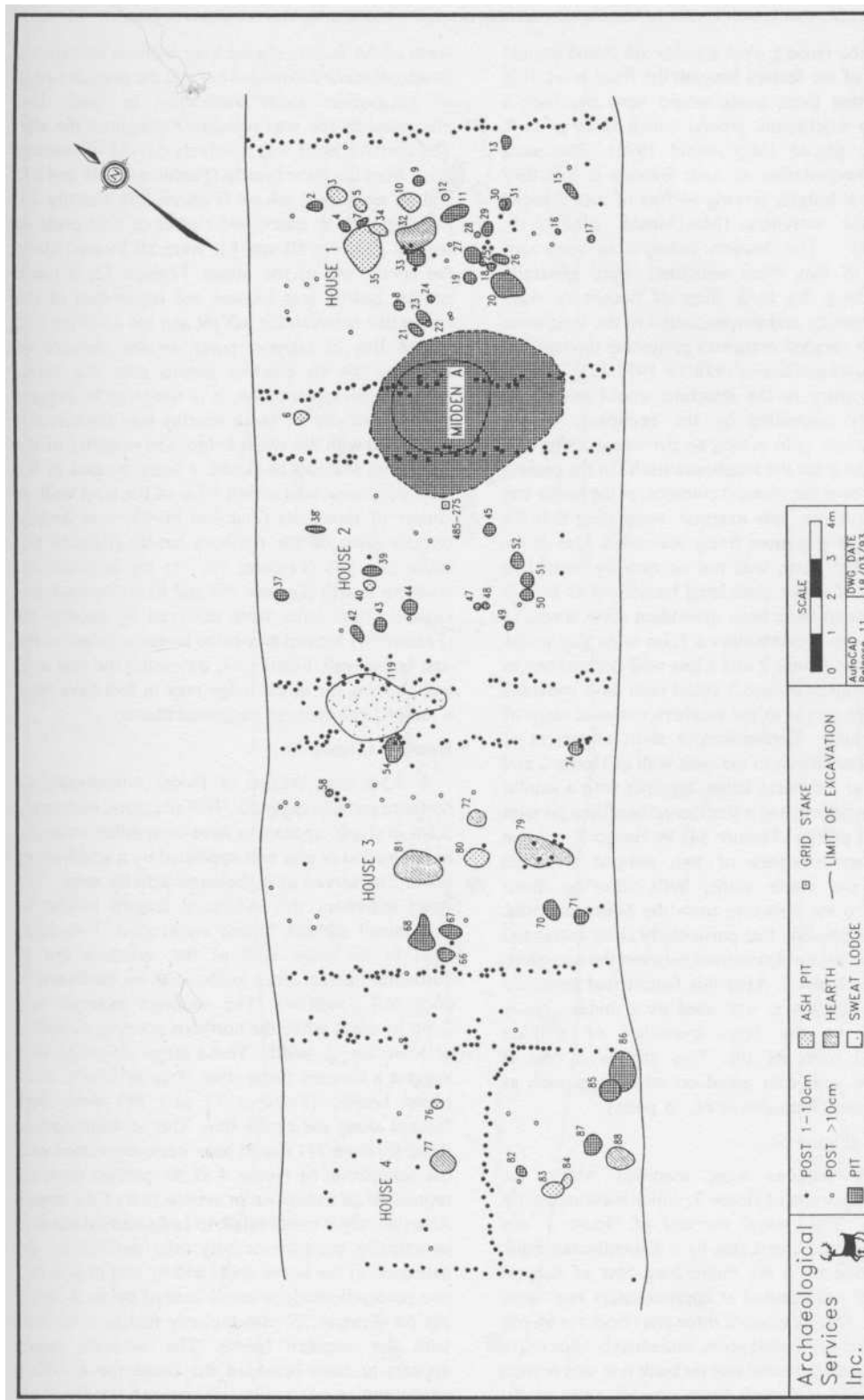


Figure 5 Norton site (Af1h-86), Houses 1, 2, 3 and 4.

body of the feature. Post moulds are found around the edge of the feature beneath the floor level. It is thought that these posts would have provided a frame for a structure around which skins or bark could be placed (MacDonald 1992). The most cogent interpretation of such features is that they were sweat lodges, serving as foci of men's social and ritual activities (MacDonald 1988:17-19; 1992:329). The Norton example is somewhat unusual in that these structures were generally placed along the bunk lines of houses or were situated outside and perpendicular to the longhouse with their ramped entrances projecting through the house wall (MacDonald 1988:19; 1992:323). In such locations entry to the structure would have been effectively controlled by the occupants of the longhouse: to gain access to the sweat lodge one first had to enter the longhouse itself. In the present case however the clearest entrance, at the south end of the structure, was external, suggesting that the sweat lodge was more freely accessible. Use of the sweat lodge, then, was not necessarily limited to members of either associated household as it does not appear to have been dependent upon access to either house. Nevertheless a 1.3m wide gap in the west wall of House 2 and a less well-defined one in the east wall of House 3 could both have provided convenient access to the southern entrance ramp of the structure. Furthermore a short alignment of posts perpendicular to the west wall of House 2 and adjacent to the sweat lodge, together with a similar post arrangement and a shallow refuse filled pit with a skewed profile (Feature 54) in House 3, suggest the former existence of two ramped entrances through the house walls, both allowing direct entrance to the structure from the house interiors. Thus it is possible that particularly close social and political relationships existed between the occupants of Houses 2 and 3. After this feature had served its primary function it was used as a midden, as is indicated by the large quantities of artifacts recovered from its fill. This change in use is consistent with data noted on other sites such as Myers Road (Ramsden *et al.*, in press).

#### House 3 (Figure 5)

Twelve features were recorded within the excavated portion of House 3, which measured 6.1m in width. The central corridor of House 3 was delineated on the east side by a discontinuous bunk line formed by a six metre long row of support posts that were placed at approximately one metre intervals. The presence of three pits (Features 66-68) and several associated posts immediately adjacent to the west wall indicates that no bunk line was present on that side, although three support posts to the

north of the feature cluster may indicate that such a structural feature extended beyond the northern edge of excavation. Such variability in bunk line placement or use was repeated throughout the site. The corridor itself was relatively devoid of features aside from the three hearths (Features 72, 79 and 81) and an associated ash pit (Feature 80). Feature 79, together with an associated cluster of nine posts as well as Features 80 and 81, were all located along the centre line of the house. Feature 72, a much smaller hearth, was located one metre east of the centre line between the ash pit and the southern end of the line of support posts. In the absence of evidence for an external hearth near the semi-subterranean sweat lodge, it is tempting to suggest that at least one of these hearths was functionally associated with the sweat lodge. The majority of the remaining features in House 3 were located in the west peripheral area within 1.8m of the west wall. A cluster of three pits (Features 66-68) was located directly west of the northern hearth (Feature 80) while two pits (Features 70, 71) lay opposite the southern hearth (Feature 79) and its associated post cluster. These latter were mirrored by another pit (Feature 74) located across the house adjacent to the east house wall. Feature 54, traversing the east wall and abutting the sweat lodge may in fact have been a ramped entrance, as suggested above.

#### House 4 (Figure 5)

A 9.5m long section of House 4 including its northern end was exposed. This structure, measuring 5.8m in width, appears to have been either extended or contracted or else was appended by a vestibule or porch that served as a sheltered activity area. The exact nature of this structural feature cannot be determined without further excavation. Two large gaps in the west wall of the structure are of particular interest since neither can be attributed to poor soil conditions. The southern example was 2.5m in width while the northern opening measured at least 2m in width. These large openings may suggest a summer occupation. Two relatively small round hearths (Features 77 and 88) were both located along the centre line. The northernmost of these (Feature 77) would have been associated with the occupation of House 4 if the pattern recorded represents an expansion or contraction of the house. Alternatively it could relate to tasks carried out in a structurally complex activity area defined by the extension of the house walls and by one or possibly two perpendicularly oriented lines of posts. A single ash pit (Feature 76) was the only feature associated with the northern hearth. The southern hearth appears to have provided the focus for a diffuse concentration of two intersecting ash pits (Features



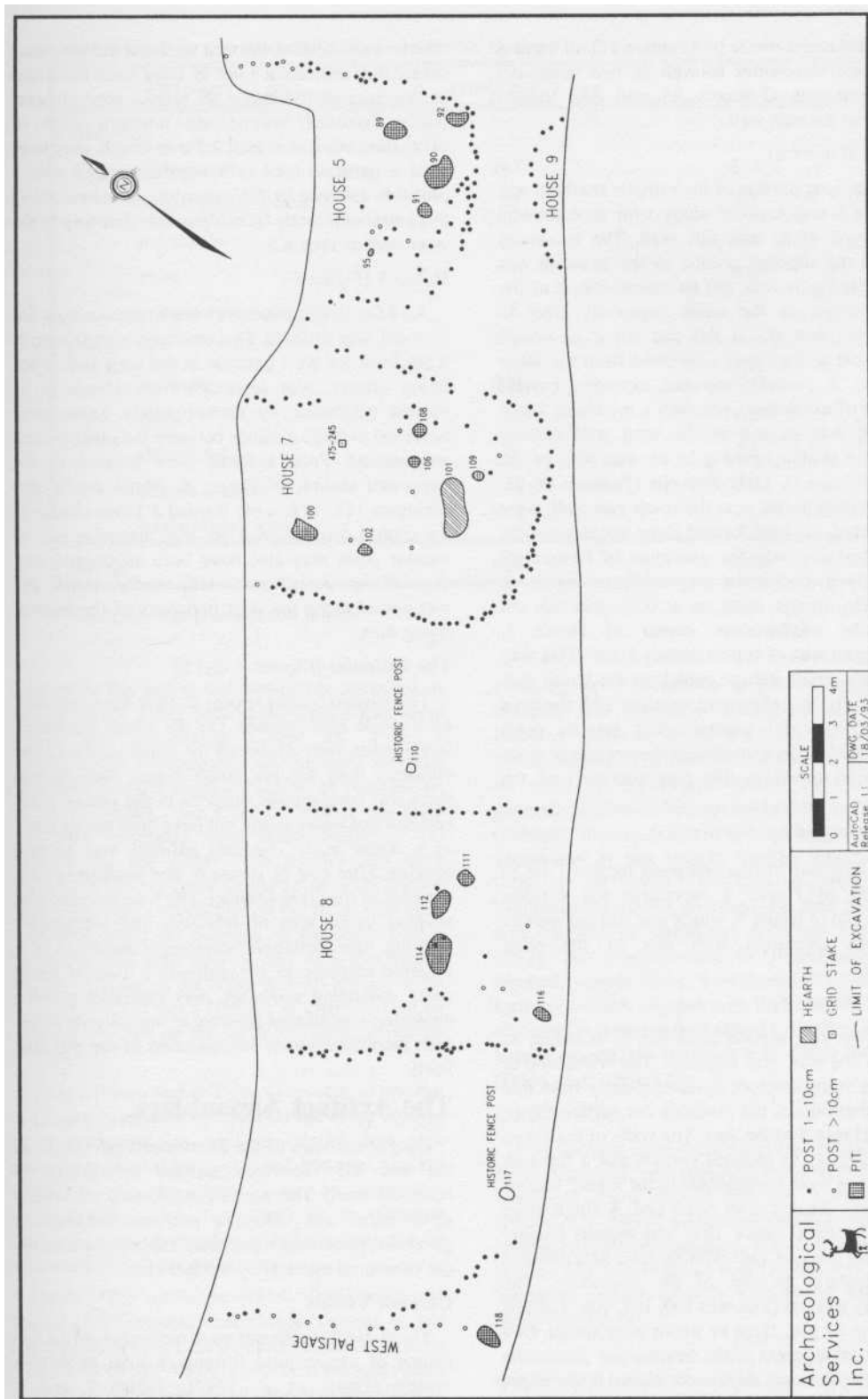


Figure 6 Norton site (AfH-86), West Palisade and Houses 5, 7, 8, and 9.

83 and 84) and a sterile pit (Feature 87) all located in the central corridor as well as two additional intersecting pits (Features 85 and 86) located adjacent to the east wall.

#### **House 5 (Figure 6)**

A 4.0m long portion of the extreme southern end of House 5 was exposed along with an additional 3.0m length of its east side wall. The maximum width of the exposed portion of the structure was 5.8m. This figure may not be representative of the house's width as the walls apparently taper to rounded corners and a flat end but it is closely comparable to the figures obtained from the other structures. A probable entrance, extending beyond the edge of excavation, but with a minimum width of 0.9m, was located in the west wall directly opposite a similar opening in the east wall of the adjacent House 7. Only five pits (Features 89-92, 95), all concentrated near the south end wall, were documented. All were located along the edges of the central corridor with the exception of Feature 92 which was placed in the very southeast corner. A line of ten interior posts set at 0.5m intervals cut across the southwestern corner of House 5, enclosing an area of approximately 2.5m<sup>2</sup>. This may represent a small storage cubicle at the house end. Alternatively, this alignment, together with the large support posts and several other smaller posts concentrated in the area, may represent one or more episodes of repair to this particular part of the longhouse.

#### **House 9 (Figure 6)**

A curving line of fourteen posts located 1.5m to the south of House 5 represents the extreme northern end of House 9, which was laid out with an orientation consistent with that of the other structures.

#### **House 7 (Figure 6)**

An 8.0m long section of House 7, including its southern end wall, was exposed. The orientation of this 6.5m wide structure deviated slightly from that of the other houses but probably not sufficiently to overlap House 5 to the east. The walls of the house tapered slightly to rounded corners and a flat end. Six features were documented in the house, four of which were located in its south end. A single large shallow hearth (Feature 101) was located roughly 2.5m from the end wall with its long axis oriented perpendicularly to that of the longhouse. The remaining features (Features 100, 102, 106, 108 and 109) were all pits, three of which were sterile. One was located adjacent to the hearth, one was in the central corridor, and three were placed at the edges of the central corridor. A line of interior posts

which ran parallel to the east wall and the southeast corner may indicate a 1.0m to 1.5m wide bunk line in this area of the house. A second row of posts which extended beyond the northern edge of excavation but was at least 2.5m in length, may have been a partition wall or screen associated with a probable entrance in the east wall. As noted above this entrance directly faces a possible doorway in the west wall of House 5.

#### **House 8 (Figure 6)**

An 8.0m long section of House 8, measuring 6.5m in width, was exposed. This structure, approximately 6.5m from the west palisade at the west end of the house cluster, was separated from House 5 its nearest neighbour by approximately 5.0m: over twice the average distance between the other houses encountered. Four features were located in the excavated section of House 8. Three sterile pits (Features 111, 112, 114) formed a loose cluster in the central corridor. A 1.5m long irregular line of interior posts may also have been associated with this activity area. Feature 116, another sterile pit, was placed along the west periphery of the interior living area.

#### **The Palisades (Figures 4 and 6)**

The aligned houses appear to have been enclosed by a single row palisade. On the whole somewhat larger posts were preferred for construction of the palisades than for the house walls. Nevertheless there was considerable variation in the size of posts selected and many would not have been out of place in a house wall. The east palisade was located roughly 5.0m east of House 6, and positioned near the edge of the creek channel. The west palisade was situated in an area of relatively flat topography offering little defensive advantage. Adjacent to a possible entrance in the palisade a line of small posts, extending southeast, may represent a fence enclosing a small area adjacent to the palisade rather than reconstruction or modification of the palisade itself.

### **The Artifact Assemblage**

Despite the scale of the excavations carried out at the site the recovered artifact assemblage is relatively small. This places considerable limitations upon intra- and inter-site analyses but several generalizations remain possible. Table 1 summarizes the recovered material by artifact class.

#### **Ceramic Vessels**

Thirty-eight rim sherds were recovered during the course of excavations, forming a total of twelve vessels (Powis *et al.* 1992). Tables 2 and 3

**Table 1** Norton site (AfHh-86) artifact frequencies by class

ARTIFACT CLASS	FREQUENCY	%
Ceramics <sup>1</sup>		
body sherds	153	23.2
neck-shoulder sherds	39	<b>5.9</b>
rim sherds	38	5.8
pipes	5	0.8
juvenile vessel sherds	8	1.2
Lithics		
debitage	386	<b>58.5</b>
cores	5	0.8
utilized flakes	15	2.3
bifaces & points	9	1.7
hammer/anvil stones	2	0.3
<b>TOTAL</b>	<b>660</b>	<b>100.5</b>

<sup>1</sup>excludes 438 unanalyzable sherds

summarize the metric and non-metric attributes of the rim sherds. Three basic vessel types are apparent within the assemblage (Table 4). Type 1 (n=10/83.3%) predominates and includes all those rims with a collar motif consisting of obliques on the collar (Figure 7:a-e, g and h). Within this basic type five variations were noted, including: (a) obliques on the collar with interior and neck decoration; (b) obliques on the collar with interior decoration only; (c) obliques on the collar with neck decoration only; (d) obliques on the collar over a horizontal line with interior and neck decoration; and (e) obliques on the collar with no interior or lip decoration. One rim (Type 2) is characterized by opposed obliques on the collar and neck decoration (Figure 7:f).

Type 3 (illustrated in Table 4) consists of one rim sherd decorated with obliques on the collar crossed by a horizontal, as well as interior and neck decoration. It must be recognized, however, that the definition of this type may be somewhat inappropriate, since the sherd is a complete castellation the decoration of which may not be representative of the entire vessel.

Overall the attributes which characterize the Norton site ceramic assemblage suggest a late Middleport or early Late Iroquoian occupation (*circa* A.D. 1400-1450). Vessels with well-defined collars predominate, the use of incising was preferred to

stamping as a decorative technique, obliques or obliques over horizontal decoration are the most common motifs and there is a complete absence of lip decoration. The presence of interior decoration on eight of the twelve vessels, a trait which generally decreases through the Middleport substage (although the London area appears to be somewhat anomalous in this regard (Pearce 1984:212-213; Dodd *et al.* 1990:336), also suggests a late Middleport or early Late Iroquoian date. Moreover, with respect to traditional typology (MacNeish 1952), the predominance of Pound and Black Necked vessels over Middleport Oblique (and Lawson Incised) together with the complete absence of Ontario Horizontal (Table 5), implies an early Late Iroquoian date (i.e. post A.D. 1400) for the site (Dodd *et al.* 1990:337).

#### Ceramic Pipes

Five ceramic pipes were recovered including two bowl fragments, one complete bowl, one complete bowl and elbow section and one complete pipe (Powis *et al.* 1992). These comprise one (Figure 8c) or possibly two trumpet pipes, one conical plain pipe (Figure 8b), one Iroquois ring (Figure 8d) and one miniature, possibly juvenile, conical pipe with a ring motif (Figure 8a).

General trends are now recognized in the development of a ceramic pipe complex on prehistoric Iroquoian sites in southern Ontario.

**Table 2.** Norton site (AfHh-86): ceramic vessel summary descriptive statistics

ATTRIBUTE	n	%
RIM FORM		
Collared	8	66.7
Incipient Collared	3	25.0
Collarless	1	8.3
LIP FORM		
Flat	12	100
ANGLE OF LIP TO INTERIOR		
Right	5	41.7
Obtuse	5	41.7
Acute	2	16.7
RIM ORIENTATION		
Vertical	10	83.3
Outflaring	2	16.7
INTERIOR PROFILE		
Straight	7	58.3
Concave	3	25.0
Convex	2	16.7
COLLAR BASE SHAPE		
Angular	6	50.0
Rounded	5	41.7
N/A	1	8.3
COLLAR TECHNIQUE		
Incised	7	58.3
Linear Stamp	1	8.3
Dentate Stamp	1	8.3
Incised over Incised	1	8.3
Incised crossed by Incised	1	8.3
Corded Punctate	1	8.3
NECK MOTIFS		
Horizontal	9	75.0
Plain	2	16.7
Horizontal over Oblique	1	8.3
NECK TECHNIQUE		
Incised	9	75.0
Plain	2	16.7
Incised over Incised	1	8.3
INTERIOR MOTIFS		
Punctate	6	50.0
Plain	4	33.3
Horizontal	1	8.3
Linear Punctate	1	8.3
INTERIOR TECHNIQUES		
Punctate	7	58.3
Plain	4	33.3
Linear Punctate	1	8.3
LIP MOTIFS		
Plain	12	100

**Table 3.** Norton site (AfHh-86): ceramic vessel summary metrics

COLLAR HEIGHT (n=12)	
Range	9.0-40.0 mm
Mean	21.42 mm
Standard Deviation	10.36
Coefficient of Variation	<b>48.4</b>
LIP WIDTH (n=12)	
Range	6.0-13.0 mm
Mean	<b>9.58</b> mm
Standard Deviation	2.84
Coefficient of Variation	29.7
COLLAR BASE WIDTH (n=12)	
Range	7.0-16.0 mm
Mean	11.0 mm
Standard Deviation	2.95
Coefficient of Variation	26.86

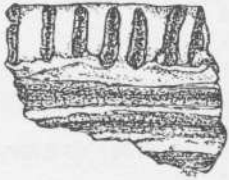

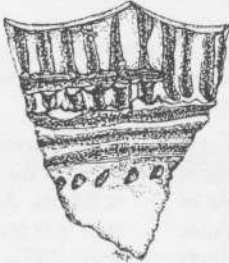
Middle Iroquoian pipes are characterized by conical and barrel-shaped bowls, right-angled elbow junctures, round stem cross-sections and the use of encircling incised lines as a decorative technique. Plain bowls are also common and may constitute half of a Middle Iroquoian pipe sample. The trumpet pipe is generally accepted as a late Middleport to early Late Iroquoian stage trait (Wright 1966:71; Kapches 1981:208), although Smith (1987) has argued that it cannot be used as a temporal marker. The Norton sample is comparable to the nine pipes found at the Alway site near Komoka which include plain trumpet, conical plain and Iroquois ring types among the four types identified (Pearce 1984). The Lawson site is slightly later in the regional sequence and the pipe assemblage includes human effigy types and a greater proportion of ring versus trumpet types. It would appear therefore that the pipe sample from the Norton site exhibits the traits of a Late Iroquoian site in transition from the Late Middleport stage.

### Lithics

Slightly over 400 lithic artifacts were recovered, yet this total includes only nine formal chert tools (Robertson and Woodley 1992). Five point fragments were recovered including a diagnostic base, one lateral fragment and three tips. The diagnostic point base was collected during the surface survey. Made of Kettle Point chert and broken just above the shoulder, it is side-notched

with a convex base and exhibits basal grinding. The width of the fragment is 14.5mm, and its thickness is 3.8mm. Although the base is more convex than most it is probably a Nanticoke Notched type point (Fox 1987). The lateral edge fragment, recovered from a House 5 support post, is from a side notched point manufactured from Onondaga chert. It is broken along the medial line, and the base is broken beneath the shoulder although part of the side notch remains. The remaining lateral edge is thinned. It measures 6.3mm in thickness. The remaining point fragments are tips. The first of these was recovered from Midden A and is made of Selkirk chert. It is 20.8mm wide and 4.8mm thick. The second point tip was recovered from the topsoil during test excavations. Made of Onondaga chert, it measures 14.8mm in width and 3.2mm in thickness. The final point tip was recovered during the surface collection of the site. It too was made of Onondaga chert, measuring 13.3mm in width and 4.7mm in thickness. Both Onondaga point tips had been thermally altered. One complete biface or point preform of Onondaga chert was recovered from Midden A. It is 45.1 mm in length, 20.8mm in width and 4.8mm in thickness. It has a slightly convex base and excurvate edges that taper toward the tip and is thinned on all edges. Two small biface fragments were recovered from Feature 1 in House 6. The first of these is made from Onondaga chert and is probably a biface preform fragment. There is cortex on one lateral edge and many fracture scars that

**Table 4.** Norton site (AfHh-86): ceramic vessel decorative motifs

MOTIF CLASSES			
TYPE	ILLUSTRATION	n (12)	%
Type 1		10	83.3
Type 2		1	8.3
Type 3		1	8.3
Total		12	100

**Table 5.** Norton site (AfHh-86): ceramic vessel types by major provenance units

CERAMIC TYPE	H1	H2	H3	H4	F. 119	TOTAL
Pound Necked		1	1	1	3	6
Middleport Oblique					2	2
Black Necked					1	1
Lawson Incised					1	1
Miscellaneous	1				1	2

Types defined after MacNeish (1952)

hinge at the cortex. The other lateral edge has extensive use-wear suggesting that it was used as a knife. The artifact was thermally altered and is 10.9mm thick. The second tool fragment is made of Onondaga chert and is a combination biface and graver. Only a few attempts were made to remove the cortex on one lateral edge. It is crudely thinned on the slightly convex worked edge. There is a

pointed worked area near the bottom of the blade, probably the result of its use as a graver. The only other biface in the assemblage, recovered from the upper level of Midden A, is a very small edge fragment.

Fifteen utilized flakes were recovered during the course of excavations (Table 6). Six of these flakes were derived from Midden A, three were recovered

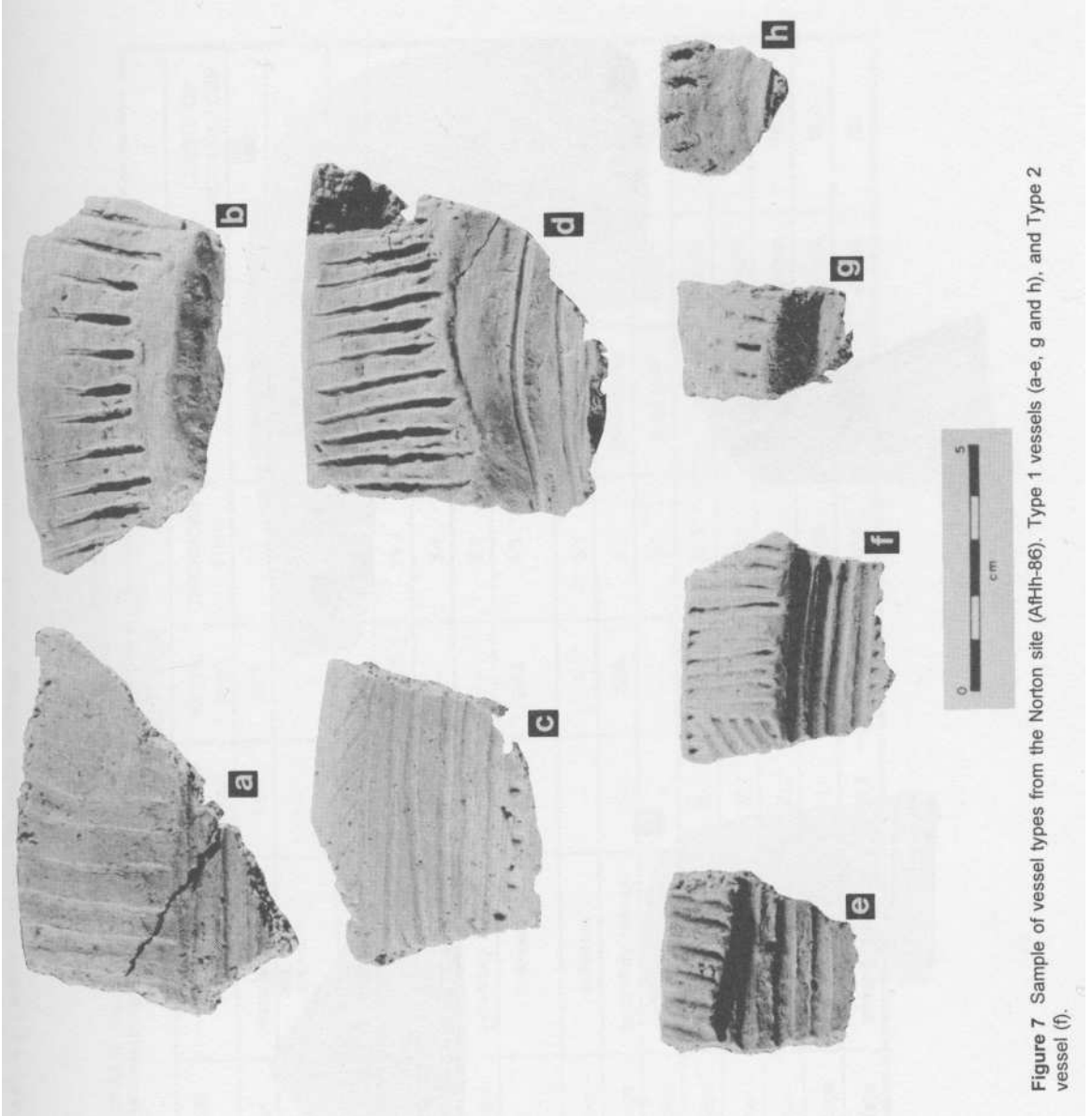


Figure 7 Sample of vessel types from the Norton site (AfH-86). Type 1 vessels (a-e, g and h), and Type 2 vessel (f).

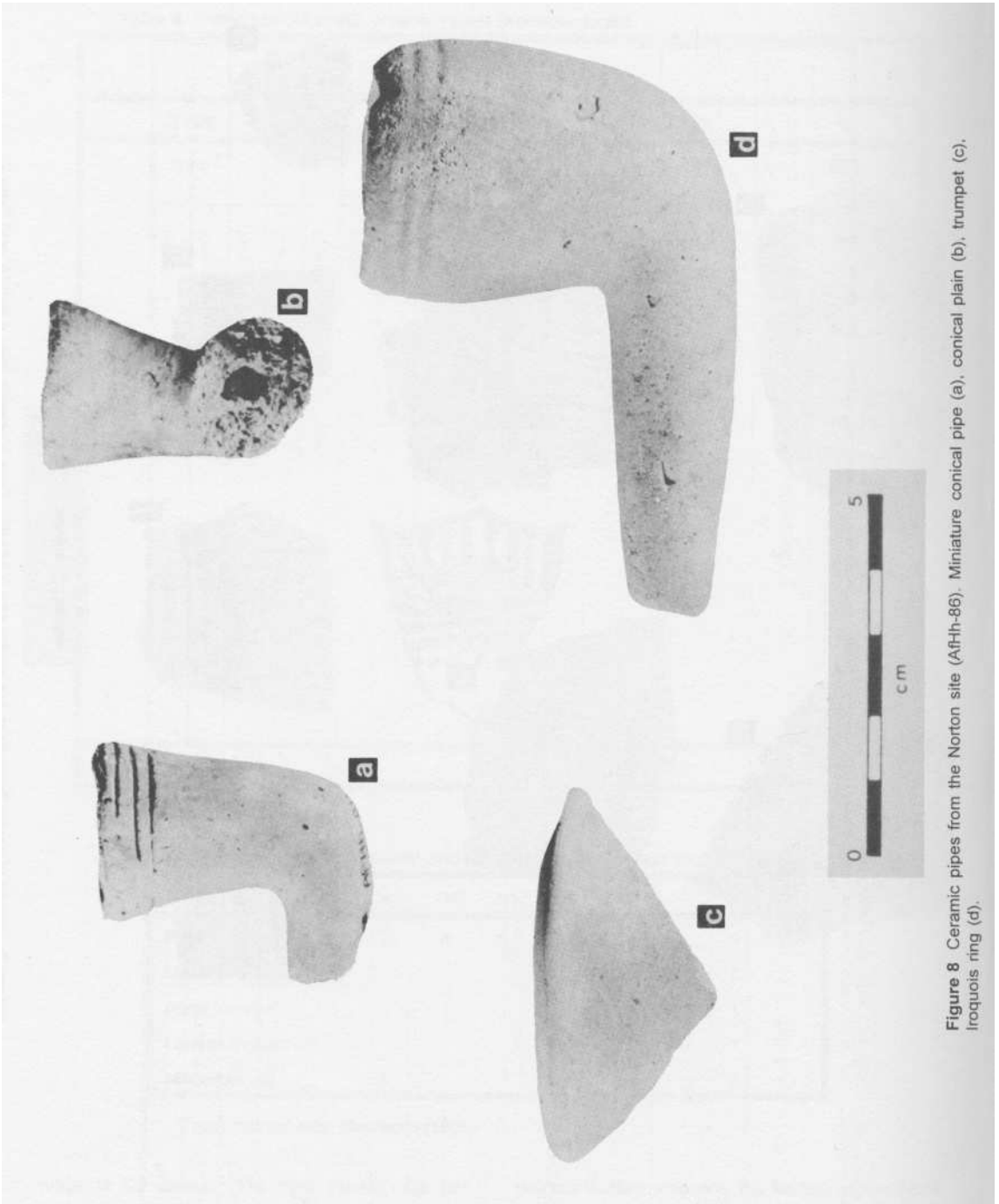


Figure 8 Ceramic pipes from the Norton site (A1Hh-86). Miniature conical pipe (a), conical plain (b), trumpet (c), Iroquois ring (d).



**Table 6.** Norton site (AfHh-86): summary statistics for utilized flakes

UTILIZED FLAKES								
PROVENANCE	MATERIAL	TYPE	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)	LOCALE	WORKED EDGE	LENGTH OF WORKED EDGE
surface	unknown	secondary retouch	17.4	22.1	3.8	distal/dorsal	straight	15.3
test unit	Kettle Point	unknown	--	--	5.8	left/ventral right/ventral	straight convex	16.9 16.1
test unit	unknown	secondary retouch	35.9	34.8	7.1	distal/ventral	irregular	35.8
test unit	burnt	shatter	39.0	23.3	13.4		straight	13.5
House 6 Feat.1	burnt	secondary retouch			3.4	right/ventral	concave	12.3
House 6 Feat.1	Onondaga	secondary retouch			3.1	right/dorsal	convex	10.3+
House 6 Feat.1	burnt	unknown		24.3	4.3	left/dorsal right/dorsal	straight convex	12.8+ 14.6+
Midden A	unknown	unknown			5.1	left/dorsal	convex	15.9+
Midden A	Onondaga	secondary retouch	19.6	30.8	4.0	distal/ventral	straight	9.6
Midden A	Onondaga	primary thinning			3.9	left/dorsal	straight	16.0
Midden A	Onondaga	shatter	26.7	24.2	12.3	-	straight	19.5
Midden A	unknown	primary reduction	35.1	25.5	13.5	right/ventral	straight	25.4
Midden A	unknown	secondary retouch	20.2	14.4	3.9	right/dorsal	convex	15.8
Feat.119	Onondaga	shatter	34.1	18.9	13.9	--	convex	15.2
Feat.119	Onondaga	primary reduction	29.6	19.4	10.2	left/dorsal	straight	18.5

**Table 7.** Norton site (AfHh-86): summary statistics for cores

CORES						
PROVENANCE	MATERIAL	TYPE	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)	CORTEX
Midden A	Onondaga	Bipolar	43.1	28.9	20.9	both ends
Midden A	Kettle Point	Random	26.8	16.1	11.8	absent
Midden A	Onondaga	Bipolar	32.7	28.8	21.2	proximal
Feat.119	Onondaga	Bipolar	25.9	21.4	13.9	proximal
Feat.119	Kettle Point	Random	34.6	23.0	14.9	absent

from Feature 1 in House 6, two were recovered from the midden deposits of the semi-subterranean sweat lodge (Feature 119) while the remaining four were recovered during the surface collection and preliminary test excavations.

A total of five cores was recovered from the excavated area of the site (Table 7). Three were located in Midden A while the remaining two were recovered from the fill of the semi-subterranean sweat lodge.

Three hundred and fifty-five (85%) of the 417 lithic artifacts collected from Norton were recovered from undisturbed subsurface contexts. Approximately 53% of this sample (n=189) is derived from Midden A and the midden deposits of Feature 119. Nevertheless the spatial distribution of the remaining sample, derived from non-midden features and interior house support posts (n=165), suggests several areas of relatively concentrated tool-making or refurbishing activity. A total of 131 lithic artifacts (36.9% of the sample derived from subsurface contexts) was found in thirty-six of the ninety-four non-midden features. The mean density of lithics within these thirty-six features was thus 3.6 artifacts per feature. A further thirty-eight artifacts (11% of the sample derived from subsurface provenances) were recovered from

support posts in Houses 1, 2, 3, 5, and 7.

The general distribution of lithic material indicates several foci of tool manufacture or repair within the excavated portion of the site. Feature 1, in House 6, contained two biface fragments, three utilized flakes and twenty-nine pieces of debitage, suggesting that this area was one of particularly concentrated activity. Two other areas of activity were centred upon the hearths in Houses 1 and 2 respectively. These were however much more diffuse than that of Feature 1 and probably represent more sporadic episodes of knapping during the entire period of the houses' occupations. The concentration of these activities around the hearths was paralleled, albeit on a much smaller scale, by lithic distributions in the other houses. Such a pattern suggests that tool manufacture or repair indoors required fires for lighting, and perhaps also for the treatment of the raw material. Twenty-eight of the thirty-eight pieces of debitage recovered from interior house support posts (74%) were distributed among eight posts along the eastern and western edges of the central corridor of House 3 to the north of the hearths in an area devoid of other features. The data are insufficient to determine whether deposition occurred prior to raising the posts, subsequent to their removal or through being swept from the central corridor and eventually deposited in post fills, as

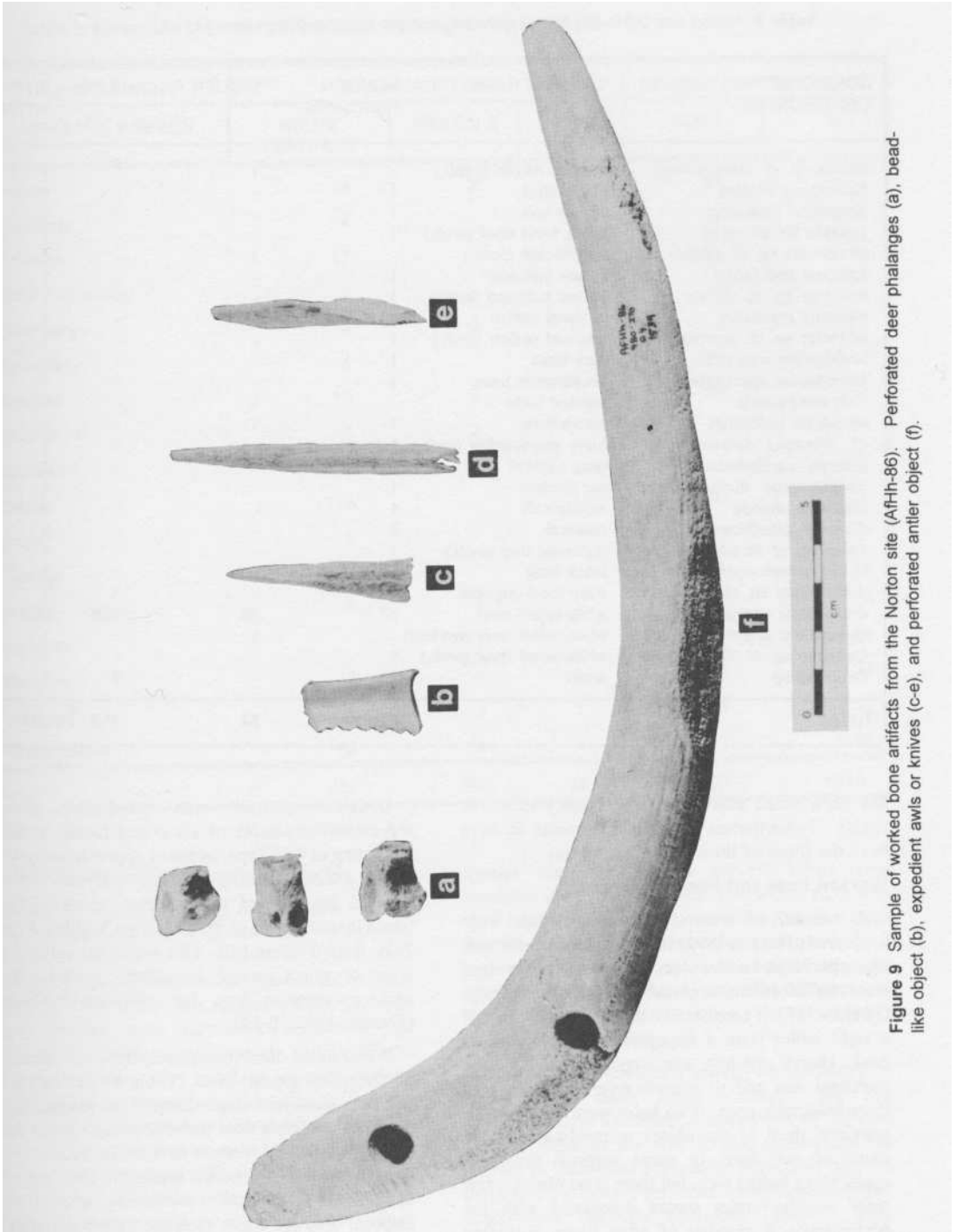


Figure 9 Sample of worked bone artifacts from the Norton site (AFH-86). Perforated deer phalanges (a), bead-like object (b), expedient awls or knives (c-e), and perforated antler object (f).

**Table 8.** Norton site (AfHh-86) faunal remains: species by provenance type

TAXONOMIC IDENTIFICATION	COMMON NAME	HOUSE FEATURES	MIDDEN A	F119	SITE TOTAL
<i>Elliptio</i> sp. cf <i>complanatus</i>	eastern elliptio (prob.)	-	1	-	1
<i>Lasmigona</i> costata	fluted shell	1	-	-	1
<i>Strophitus undulatus</i>	squaw foot	1	-	-	1
<i>Liquimia</i> sp. cf <i>recta</i>	black sand shell (prob.)	1	-	-	1
<i>Lamprosilis</i> sp. cf <i>radiata</i>	flat mucket (prob.)	-	1	-	1
<i>Ictalurus nebulosus</i>	brown bullhead	1	-	-	1
<i>Ictalurus</i> sp. cf. <i>natalis</i>	yellow bullhead (prob.)	1	-	-	1
<i>Ictalurus punctatus</i>	channel catfish	1	-	-	1
<i>Ictalurus</i> sp. cf. <i>punctatus</i>	channel catfish (prob.)	1	-	-	1
<i>Ambloplites rupestris</i>	rock bass	1	-	-	1
<i>Micropterus salmoides</i>	smallmouth bass	1	-	-	1
<i>Chrysemys picta</i>	painted turtle	-	1	-	1
<i>Meleagris gallopavo</i>	wild turkey	1	1	-	2
Cf. <i>Picoides villosus</i>	hairy woodpecker (prob.)	1	-	-	1
<i>Sciurus carolinensis</i>	grey squirrel	2	-	-	2
<i>Tamiasciurus hudsonicus</i>	red squirrel	1	-	-	1
<i>Marmota monax</i>	woodchuck	1	-	-	1
<i>Ondatra zibethicus</i>	muskrat	2	-	-	2
<i>Canis</i> sp. cf. <i>familiaris</i>	domestic dog (prob.)	1	-	-	1
<i>Ursus americanus</i>	black bear	-	-	1	1
<i>Artiodactyla</i> sp. cf <i>Cervus</i>	even toed ungulate	-	-	1	1
<i>Odocoileus virginianus</i>	white-tailed deer	67	28	108	203
<i>Odocoileus virginianus</i> (prob.)	white-tailed deer (worked)	-	1	-	1
Cervidae sp. cf <i>O. virginianus</i>	white-tailed deer (prob.)	1	-	-	1
Cervidae sp.	antler	2	-	2	4
<b>TOTAL</b>		<b>88</b>	<b>33</b>	<b>112</b>	<b>233</b>

has been noted elsewhere (e.g. Hanley *et al.* in press). Nevertheless this area too seems to have been the focus of lithic reduction activity.

#### Worked Bone and Faunal Remains

A number of worked bone implements were recovered (Thomas 1992) the most notable of which was a perforated antler object (Figure 9:0 recovered from the fill of the semi-subterranean sweat lodge (Feature 119). It consists of a major distal portion of a right antler from a four-point white-tailed deer buck. Heavy grinding was employed to shape the proximal end and to smooth over the stumps of three branching tines. Two holes were drilled in the proximal third of the object perpendicular to the plane of curvature. In some respects this item resembles a hafted pick, but there is no obvious haft wear on the antler cortex associated with the perforations. A number of other items, including five perforated deer phalanges, a bead-like object (Figure 9:b) manufactured from the diastema of a deer mandible, a finely worked bodkin fragment and four expedient awls or knives (Figure 9:c-e) were also recovered.

Detailed analysis was conducted on a representative sample of excavated faunal material consisting of 1,097 specimens or approximately 47% of the excavated material. The analyzed remains account for 86% of the material recovered from house features, 69% of the total from Midden A, and 25% from Feature 119. This variation reflects an effort to select enough identifiable material from each provenance type for adequate evaluation (Thomas 1992:58-59).

White-tailed deer comprises 90% of elements identified to species level (Table 8) indicating its primary economic importance. The frequency of deer and probable deer identifications ranges from 79% in the house features to 88% in Midden A to 98% in Feature 119, which appears to have been the location of considerable processing activity or a disposal area for waste material from such activity (Thomas 1992:65-66). The remainder of the faunal sample, 10% on a site-wide basis, is thinly distributed among a wide range of species none of which accounts for more than 0.9% of the site total. Given these conditions it may be more useful to consider the identified species by groups rather than

**Table 9.** Norton site (AfHh-86) plant remains: absolute numbers of **seeds**

PLANT REMAINS ABSOLUTE # SEEDS	PROVENANCE TYPE		SPECIES CONTRIBUTIONS		
	HOUSEMIDDEN A	F119	SUMS%	FEATURES	
Maize	13	2	1	16	<b>4.42</b>
Sunflower	<b>4</b>			<b>4</b>	1.10
Tobacco	17		9	26	7.18
Black Nightshade	3			6	1.66
Elderberry	2	3	3	5	1.38
Strawberry	<b>4</b>			<b>4</b>	1.10
Bramble	13	2		15	4.14
Chenopod	1	2	7	10	2.76
Knotweed	1	10		11	3.04
Cattail	119		1	120	33.15
Aralia	1			1	0.28
Cleaver	1			1	0.28
Sumac	4	1	1	6	1.66
Ironwood		1		1	0.28
Purslane	2	4	2	8	2.21
Unknown	4	3	1	8	2.21
Unidentifiable	43	74	3	120	33.15
Total	232	102	28	362	100.0

to examine the implications of each species.

Gathered faunal resources may be procured by hand by elderly people or children and the material technology required is generally simple. Six specimens representing as many species fall into this category. Five freshwater mussel species and one turtle species were identified, accounting for approximately 3% of the sample. None of the gathered species, nor even all mussel species combined, were present in quantities sufficiently large to indicate a harvest level of exploitation. Small game may be hunted with projectile weapons but may also be taken with deadfall traps, snares, etc. Therefore small game may have been taken by men and women, young and old alike, and was most probably pursued locally (Steward 1968: 326). Eight specimens representing five species (wild turkey, woodchuck, muskrat and grey and red squirrel) fall into this category accounting for approximately 8% of the sample. The data in the analyzed sample indicate that none of the small game resource

species was exploited at harvest levels. One specimen was tentatively identified as the right ulna of a hairy woodpecker (*Picooides villosus*). Given that the behaviour of this species does not make it particularly vulnerable to human exploitation its meagre nutritive value would scarcely justify pursuit. It may therefore have been taken for its attractive black and white plumage.

Fishing as a subsistence activity can probably be equated with small game hunting. Six fish specimens were identified or nearly 3% of the total sample. None of the five species represented are present in quantities suggesting harvesting nor are these species closely associated with spawning run exploitation. Aquatic resources including fish, mussel, turtle and muskrat contributed fourteen specimens, approximately 6% of the total. All could have been procured locally. Given the site's proximity to the Thames River, such resources appear to be grossly under-represented. The heavy flotation fraction however has yet to be fully

**Table 10.** Norton Site (AfHh-86) plant remains: wood charcoal

PLANT REMAINS WOOD CHARCOAL (g)	PROVENANCE TYPE			SPECIES CONTRIBUTIONS	
	HOUSE FEATURES	MIDDEN A	F119	SUMS	%
Maple	31.07	0.32	3.77	35.16	16.71
Beech	7.35	16.5	0.75	24.60	11.69
Ash	114.08		0.92	115.0	54.84
Elm	23.04	0.19	0.87	24.1	11.46
Oak	0.5			0.5	0.20
Ironwood	6.25			6.25	2.97
Conifer	0.06			0.06	0.03
Birch			0.05	0.05	0.02
Unidentified	3.33	0.43	0.61	4.37	2.08
Total	185.68	17.62	6.97	210.27	100.0

analyzed and this has probably skewed the current reconstruction of the overall subsistence practices of the village's inhabitants (Waseklov 1984; Stewart 1991).

#### Floral Remains

Eighteen flotation samples, collected from a variety of provenances across the site, were analyzed (Monckton 1992a). While a diverse assortment of plant taxa are represented, their uniformly low concentrations prohibit any identification of potential plant processing areas within the excavated portion of the site.

Cultigens were represented by maize, sunflower, tobacco, and possibly bean (Table 9). Fleshy fruits included black nightshade, elderberry, bramble and strawberry, indicating that the collection of wild plant foods in the spring and summer remained an important subsistence activity. These fruits, including the black nightshade which is in fact edible when ripe (Monckton 1992b), could be dried and stored for consumption throughout the year. Other remains included chenopod, knotweed, cat-tail, spikenard, cleaver, sumac, ironwood and purslane. The majority of these species are opportunistic weeds that are indicative of a disturbed environment such as would have existed in, and around, the settlement.

Wood charcoal from the site (Table 10) was dominated by maple, followed by beech and elm. This is indicative of a mixed maple-beech forest. The presence of ash, birch, ironwood and pine is suggestive of a young or successional forest, reinforcing the conclusion suggested by the

occurrence of the seed remains of opportunistic weeds.

### The Late Iroquoian Occupation of the London Area: Implications of the Norton Site

The Norton site is one of numerous Iroquoian villages in the London area (Figure 10). The best known of these sites is Lawson (AgHh-1) situated on Medway Creek approximately eight kilometres to the north of Norton. It was investigated by W.J. Wintemberg during the early 1920s (Wintemberg 1939) and more recently by the Museum of Indian Archaeology (Pearce 1980; 1984; Smith and Borland 1983). The site occupies an area of approximately two hectares and is surrounded by steep ravine bluffs on three sides. Twelve complete and partially excavated longhouses have been excavated to date as well as an elaborate multi-rowed palisade involving the construction of earthworks. Archaeological survey in the general vicinity of the Lawson site has resulted in the identification of as many as fourteen associated special purpose sites. Pearce (1984) believes that the Lawson site was the latest village in a regional continuum that began on Oxbow Creek during Middleport times (being represented by the Alway, Edwards and Drumholm villages) and from there proceeded towards the east, being represented by the poorly known Dolway Place villages (Orchard, Tennis Lawn and McKenzie). The movement continued east along the Thames towards Lawson which was occupied during the early sixteenth century (Pearce 1984). The Norton site is situated halfway along the Thames drainage between

the Dolway villages and the Lawson site and therefore could represent an intermediate but relatively late village occupation within this sequence.

Alternatively, the Norton site may relate to a community occupying the Dingman Creek watershed to the south. This group is represented by three poorly known but possibly sequential villages. Thomas Powerline (Keron 1986) and Pincombe lie approximately eight kilometres south of Norton on a tributary of Dingman Creek, while Brian (Timmins 1990) lies approximately seven kilometres to the east. None of these sites has been investigated in detail although three cabins sites associated with Pincombe have been salvage excavated (Pearce and Catsburg 1985).

Outside of the London area Late Iroquoian communities have been identified on Talbot Creek (Wintenberg 1936; Jury 1941), Catfish Creek (Poulton 1980) and to the north of Lake Whittaker (Pearce 1984). The Talbot Creek community is represented by the Southwold and Clearville villages. Southwold has been extensively excavated (Wintenberg 1936; Smith 1977). It is surrounded by an earthwork and has evidence of at least ten longhouse structures. Clearville was partially excavated by Wilfrid Jury in the 1930s (Jury 1941). The Catfish Creek community is represented by the Pound site, which was excavated by Phileo Nash during the 1930s, and is of significance for its prominence in several early models of Iroquoian development (McNeish 1952; Wright 1966). In 1989, Archaeological Services Inc. conducted salvage excavations of an undisturbed hillside midden at the Finch site, a Late Iroquoian special purpose site within the Catfish Creek community. Finch produced, in addition to Late Ontario Iroquoian ceramics, examples of Western Basin ceramics and a unique human or bear effigy pipe (Williamson 1990).

There has been some disagreement over the sequential ordering of sites between the various communities. Such dating schemes have primarily been based on ceramic seriation. McNeish (1952) produced the first relative chronological ordering of sites. He placed the Pound site in the early part of the sequence followed by Southwold and then Lawson. Emerson (1954) included the Clearville site in his development sequence, identifying it as the earliest post-Middleport site, followed by Pound and then Lawson. Wright (1966) included the Southwold and Lawson sites within the Neutral-Erie Branch of the Late Ontario Iroquoian period. He placed Pound in the Middle Ontario Iroquoian

period, assigning a corresponding date of A.D. 1400. This was followed by Southwold and then Lawson which were dated to A.D. 1500 and A.D. 1550, respectively.

More recently two radiocarbon dates have been processed for the Lawson site. A date of A.D. 1490  $\pm$  75 yrs cal. (M-1552) was obtained from a sample of corn while a charred palisade post yielded a date of A.D. 1690  $\pm$  130 yrs cal. (S-2267) (Pearce 1984:160). These dates along with various other lines of evidence have led Pearce to propose a regional sequence that began *circa* A.D. 1280 at the Edwards Site and moved progressively eastward, including the Drumholm and Alway sites on the Oxbow Creek, the three Dolway Place villages of Orchard, Tennis Lawn and McKenzie and culminating in the Lawson site.

In terms of community patterning the Lawson site is surrounded by a large number of hamlets and agricultural cabin sites. A similar pattern has been identified with the Pincombe village where at least two hamlets or cabin sites have been identified. No small sites have yet been recorded that may be conclusively associated with Norton. The lack of these site types may be due to the greater degree of urban development around Norton. It is possible however that several small Iroquoian components may be related to Norton. The Sifton site situated approximately one and a half kilometres northeast of Norton has recently been excavated. It has been interpreted as a series of camps associated with the Sifton Bog (R. Pearce, pers. comm.). Three other poorly known Iroquoian components are situated in the three lots immediately east of the Norton site. These sites like Norton were alluded to by Wintenberg in his Lawson site monograph. It is not known whether these sites are small camps, villages or both.

At some point during the mid-sixteenth century it appears that the Iroquoian groups residing in southwestern Ontario vacated the region. The reasons for this apparent abandonment could relate to several factors the most likely of which was conflict. It is known that during the seventeenth century Iroquoian groups in Ontario were engaged in intertribal warfare, the Neutral with the Algonkian-speaking Fire Nation of the western basin of Lake Erie (Lennox and Fitzgerald 1990), and the Huron with the League Iroquois of New York State (Heidenreich 1990). That such conflicts may extend back to the prehistoric period is indicated by the elaborate defensive systems at sites such as Lawson, Southwold, Harrietsville, and Clearville (Pearce 1984) and reported at the turn of the century for

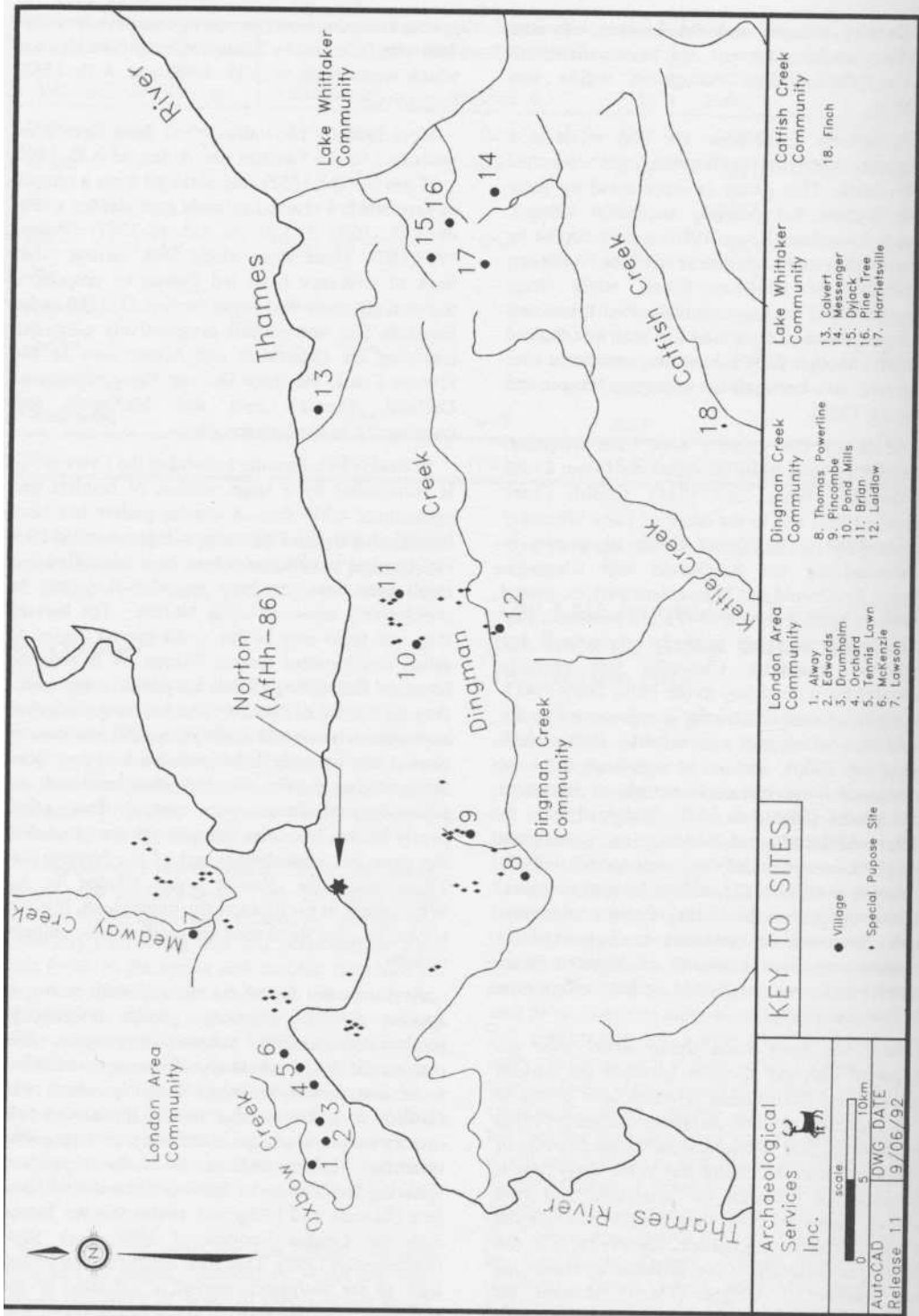


Figure 10 Selected Iroquoian sites in the Thames River drainage (adapted from Pearce 1984; Timmins 1990).



several other sites (Pearce 1992), by the presence of large quantities of scattered human remains at Lawson and Southwold (Cooper 1985) and by the apparent shift in settlement location away from major navigable waterways, such as the Thames, to more insular locations on secondary watercourses.

In southwest Ontario, interaction with groups living around the western basin of Lake Erie is suggested by the presence of Younge and Sandusky Tradition ceramics on most Late Iroquoian villages. The presence of this material has generally been interpreted as the result of conflict (Stothers 1981; Lennox 1981; Fitzgerald 1982), the notion being that captive women would be brought back to the village where they would continue to make their own ethnically distinct ceramics. On the other hand it might be argued that adopted captives would have preferred to conform to local ceramic conventions and that foreign ceramics are more likely to be indicative of exchange rather than conflict between groups.

Clearly, our understanding of material culture, relying as it does on the assumption that certain ceramic attributes necessarily reflect ethnic identity, no longer does justice to the complexity of the socio-political and economic relationships and transactions that must have existed during the Late Woodland period. The possible role of Ontario Iroquoian populations within large scale interaction networks and the effects of their participation in these systems are currently emerging as topics of some debate (e.g. Dincauze and Hastenstab 1989; Jamieson 1992; Williamson and Robertson 1992). The archaeological record of the later prehistoric period in the London region (lying as it does at an Algonkian-Iroquoian "cultural frontier" in southwestern Ontario [Murphy and Ferris 1990]), may have an important role to play in resolving these issues.

On present evidence from the Norton site the major cultural changes which began to become apparent in southwestern Ontario by the early 1500s do not appear to have been well developed a century earlier. The elaborate defensive system of palisades and earthworks found at Lawson is absent at Norton and in contrast to Lawson the Norton village was located on a primary river. In addition although osteoarchaeological data from Norton is limited compared to that recovered over the past century from Lawson no scattered human bone was recovered. Other sixteenth century earthwork sites in southwestern Ontario such as Brian, Southwold and Clearville are like Lawson somewhat more difficult of access and contain large quantities of scattered human bone.

Other evidence of interaction at Lawson such as the presence of Western Basin tradition ceramics are also absent from Norton. However the small ceramic sample from Norton precludes any conclusive statements regarding temporal trends in the degree or nature of interaction with the late prehistoric Central Algonkians.

## Summary and Conclusions

The investigations carried out at the Norton site have provided a brief glimpse of a sizeable transitional late Middleport-early Late Iroquoian village on the Thames River. Unfortunately both the limited extent of the excavations, which prevented the complete delineation of any one house structure, and the relatively small quantity of material remains recovered prevents any definite conclusions regarding the developmental history of the village and hinders resolution of the site's exact place within the sequence of village development in the region. Nevertheless sufficient data have been recovered to permit a number of general statements.

The limited ceramic evidence indicates a date of roughly A.D. 1400-1450 and, in general, the site appears to conform to the patterns documented on other similarly dated villages in southwestern Ontario (Dodd *et al.* 1990; Lennox and Fitzgerald 1990). While the lengths of the longhouses remain unknown their parallel arrangement (attributable either to spatial requirements, dynamics of the social relationships between households or a combination of these factors) is typical of village sites from the Middle Iroquoian period onward.

Likewise the evidence of the palisades and the location of the village itself suggest that the occupants of the Norton site had relatively little concern for the defence of their dwellings especially in comparison with later sites such as Pound, Lawson, Harrietsville, or Southwold. This too is consistent with the finds from other broadly contemporaneous sites (Dodd *et al.* 1990:351; Lennox and Fitzgerald 1990:440-441).

The floral and faunal remains recovered would seem to indicate a subsistence economy typical of the period being based upon the cultivation of domesticated species, in particular maize, sunflower, and tobacco, as well as on the collection of wild plant foods in the spring and summer. The overwhelming predominance of deer in the analyzed faunal sample is somewhat unusual, however its exact significance remains difficult to assess in the absence of a more complete analysis of the assemblage which should focus particularly on the

heavy fraction of the flotation samples.

The investigations carried out at the Norton site underscore the need for the complete excavation of villages of this time period in order to provide a large body of artifactual and settlement pattern data for further study. The limited excavations inhibit any reconstruction of the sequence of village movement within the region. On present evidence it is possible that Norton is part of an easterly progression of villages along the Thames River between the Oxbow and Medway creeks, originating at Alway, through to Edwards, Drumholm, Orchard, Tennis Lawn, McKenzie, and culminating with Lawson. It is equally possible, however, that the site is associated with the Dingman Creek cluster of villages, represented by the Thomas Powerline, Pincombe, Pond Mills, Brian and Laidlaw sites, which themselves have been subjected to only limited investigation.

Detailed intra- and intersite comparisons of the cultural assemblages of the many sites in the London region are essential to the reconstruction of the subtleties of the social, economic and political developments of this period that appear through time to have led to an increasing level of village insularity and desire for security, prior to the ultimate Iroquoian abandonment of the region in the mid-sixteenth century. The Norton site may have a significant role to play in this process. Mitigative work at the site has demonstrated that despite the apparent disturbances associated with an urban setting, there is significant potential for the recovery of intact archaeological deposits. In recognition of the site's importance, it has recently been designated under the Ontario Heritage Act (P. Timmins, pers. comm.). Despite the protection that such a measure is intended to provide, the site's location in a residential park will require continued monitoring. Further salvage excavation may also be necessary, due to site upgrading and servicing, to ensure that the valuable insights, that Norton may offer to those seeking an increased understanding of the prehistory of the London region, are not irrevocably destroyed.

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