

Nine Small Sites on Lake St. Francis Representing an Early Iroquois Horizon in the Upper St. Lawrence River Valley

BY JAMES F. PENDERGAST

RÉSUMÉ

Les restes archéologiques des Iroquois, surtout la poterie, trouvés dans la région du lac St-François, sont étudiés ici, puis comparés à ceux des villages typiquement Iroquois à l'est de l'Ontario.

INTRODUCTION

The existence of a number of small Iroquois sites on the St. Lawrence River between Kingston, Ontario and Lake St. Francis has been known for some time. Although they have been considered Iroquois on the basis of the pottery samples available, there are elements of incongruity which do not permit them being equated entirely with the major Iroquois villages nearby in eastern Ontario east of the Rideau Canal.

Certainly their location on the St. Lawrence River does not fit the site pattern of the major villages which, invariably, are located some distance inland from the St. Lawrence and on the headwaters of minor waterways. Their shallow artifact-bearing strata, the lack of deep middens containing an abundance of kitchen debris, and the paucity of white ash are the antithesis of the major inland villages. While these differences might be explained by attributing them to be but fishing stations of the inhabitants of the inland Iroquois villages, such a conclusion is not supported by the differences in the pottery types involved.

This paper proposes to examine the Iroquois artifacts, principally pottery, from nine small river sites located in the Lake St. Francis area, compare them with those from typical major Iroquois

inland village sites in eastern Ontario, and where possible suggest relationships between the two groups of sites. Attention will be invited to those instances where material from the river sites appears to be related to Iroquois elsewhere in Ontario.

SITE DESCRIPTIONS

All nine of the sites under discussion are located on islands in Lake St. Francis which is a broadening of the St. Lawrence River immediately north-east of the junction of the Quebec, Ontario, and New York State boundaries. Five of them are on Thompson Island, one of the principal islands in the Lake, which is approximately 1600 yards long and 800 yards wide at the widest points. The remainder are located on nearby small islands; two on Ross' and one each on Butternut and Kit Kit. The two largest sites are located on Thompson Island and have been named Gogo and Cameron after two prominent local collectors, one or the other of whom discovered or excavated all nine of the sites.

The Gogo site is situated on the top and south slope of a ridge which runs spine-like down the centre of the island in a north-east south-west direction. At the site this ridge is 200 - 300 feet inland from the north shore of the island and about 20 feet above the water. The area occupied appears to be about fifteen yards square consisting of a shallow layer of black soil three to four inches deep which occasionally dips to eight inches deep in what appear to be debris-filled natural hollows. Three ash filled depressions 15 inches deep and located towards the east end of the site appear to have been fire pits. Very little fragmented bone or charcoal occurs anywhere on the site and it produces nothing but Iroquois material.

All of the other sites produce a wide range of Point Peninsula and Owasco-like artifacts mixed with Iroquois material in three to four inches of top-soil. Butternut is an exception where the culture-bearing layer includes depressions up to eighteen inches deep. They are all small sites with material scattered for 25 to 30 yards along the shore and extending back from it 10-15 yards. There is very little of the fragmented bone or other kitchen debris

usually associated with Iroquois sites. The pre-Iroquoian and Iroquois artifacts are intermingled in the shallow artifact-bearing stratum to such an extent as to make difficult substantiating a seriation premised upon an excavating technique. Nevertheless it is possible to attribute groups of artifacts to different horizons based upon information available from other research, e.g. Ritchie and MacNeish 1949, Wintemberg 1936, MacNeish 1952, Emerson 1954, Ritchie 1961 and Pendergast 1962, n.d. It is on this basis that the Iroquois and Iroquois-like material has been separated for discussion in this paper.

BACKGROUND

As has been stated the small sites on the river have been considered Iroquois on the basis of the pottery found on them. Sherds decorated with chevron, oblique, and horizontal line motifs executed using dentate stamped, linear stamped, push-pull, and incised techniques are readily recognizable as Iroquois vis-à-vis the pottery attributable to pre-Iroquoian cultures on the basis of the definition provided by Ritchie and MacNeish (1949).

There are also present, however, considerable numbers of low collared and collarless rim sherds of many different shapes decorated with a great variety of motifs using an almost equally great variety of stamping and paddle-edge techniques. Because these sherds are found intermingled with the Iroquois and pre-Iroquoian material in a shallow artifact-bearing stratum, and because they resemble neither Ritchie and MacNeish's pre-Iroquoian pottery types nor MacNeish's Iroquois, there was for some time a haunting possibility that they represented an unrecognized horizon in eastern Ontario. In these circumstances the absence of data on similar material from elsewhere in the Northeast Area, the impracticability of arriving at a seriation based on an excavating technique, and the lack of time to locate and excavate similar undisturbed sites, readily fostered an attitude of procrastination which has delayed the preparation of this paper.

However recent investigations of three major inland Iroquois sites in eastern Ontario, i.e. Salem, Gray's Greek and Beckstead (Pendergast n.d.), have disclosed that similar stamp-decorated

low collared and collarless rim sherds are common on these sites. A subsequent re-examination by the author of relatively small pottery samples from a number of unexcavated inland Iroquois village sites and Wintemberg's Roebuck material indicates that significant quantities of this pottery are also found on those sites. Wintemberg (1936:36) went so far as to designate it the "third type" and to state, "It is possible however that the third type is a survival of an earlier stage in Iroquois pottery development". He suggests (*ibid*:123) that pots "with constricted necks and flaring mouths, however, may be survivals of evolutional stages in the development of the collared type". The association of recognized early Iroquois types, e.g. Iroquois Linear, Ontario Horizontal, and Lawson Incised, and the collarless and low collared stamp decorated ware on the small river sites appears to substantiate Wintemberg's suggestion. However, the collarless and low collared pottery and the early Iroquois pottery types are sometimes found in immediate physical association with a few well executed sophisticated late Iroquois rim sherds, e.g. Durfee Underlined and Onondaga Triangular, because of the shallow artifact layer on the sites. It is therefore not possible to conclude with any certainty that the physical proximity of rim sherds on the river sites is indicative of their proximity in time.

ARTIFACTS

Numerically, potsherds are the principal artifact recovered from the sites. Although there is a considerable number of Point Peninsula and Owasco-like sherds involved on all but the Gogo site, this paper is concerned only with the Iroquois material. It is planned to prepare a paper on this earlier material at a later date when its significance in the area is better understood.

The incidence of Iroquois rim sherds by types and groups from each site is set out in Table 1. Figure 1 illustrates the rim shapes and Figure 2 the decorative motifs involved in the complete rim sherd sample from all nine sites. This information is correlated in Table 2 to indicate, by sites, the number of sherds of each type or group recovered, their rim profile, and the decorative motif involved. In effect, Table 2 is a record of each Iroquois rim sherd recovered.

It is unfortunate that the other artifacts which were recovered intermingled cannot be separated into cultural groups with the same reasonable degree of certainty as can rim sherds. Were this not so it probably would be possible to determine whether late Iroquois artifacts occur earlier in the local Owasco-like horizon (call it what you may), and whether Owasco-like tools occur at the early levels of the local Iroquois sequence. Points are a good example. Seven typical Levanna points were recovered at Southwest Thompson together with three coarse Madison points. It would be very useful to know for certain which pottery complex these points are associated with in this area. A similar situation exists at Kit Kit where one Levanna and one Madison point were recovered. Although all four points found at Northwest Thompson are Levanna it is not certain whether they are associated with the Owasco-like pottery level, the early Iroquois, or both. At Butternut both points found are coarse Madison while at Kit Kit one point is Levanna and the other is typical Madison. The occurrence of unilateral and bilateral harpoons, and platform and Micmac steatite pipes is also in this category. Only four clay pipe fragments, all small pieces of cylindrical stems, were recovered. The one found on Cameron has a slightly flared mouthpiece while the three from Butternut do not appear unique in any way. It is not possible to say whether they are associated with the Owasco-like or the Iroquois material on the site.

Numerous plano-convex and biconvex adzes, hammerstones, flat circular pitted stones, and net-sinkers of various sizes occur on all the sites. Since they cannot be attributed to either the Owasco-like or the Iroquois levels with certainty, and because they are all typical Iroquois tools of their type, they will not be described in detail. Schist, granite, limestone, red slate, and green slate are the materials used for these tools in that order of preference.

DISCUSSION

The small sample available from the river sites makes it difficult to support the validity of some of the conclusions which can be reached from a statistical analysis. Nevertheless at present, because of the very nature of the nine sites under discussion, such

an approach appears to be the only means available to provide an insight into this heretofore unexamined horizon of the eastern Ontario Iroquois. It is hoped that similar larger and richer undisturbed sites will be found which will confirm or deny the tentative conclusions and suggestions arrived at on the basis of the limited material available at present.

Pottery

In seeking to determine the relative place occupied by the sites in the local Iroquois sequence, a comparative analysis of the incidence of early Iroquois rim sherds (MacNeish 1952) was undertaken with the result shown in Table 3. On the basis of this comparison it appears valid to state that the river sites are earlier than the inland village sites because they have more than twice the amount of early pottery types present. It is worthy of note that the Iroquois Linear, Ontario Horizontal, Lawson Incised, and Pound Necked types, early types in eastern Ontario, are more prevalent on the river sites than are Swarthout Dentate and Lanoraie Mixed, which are quite prevalent on some of the inland village sites. It appears that the dentate stamping decorative technique came into extensive use at a time later than that during which the small river sites were occupied. This does not infer that the technique is absent during river site times but rather it notes the paucity of dentate stamping at that level relative to its abundance during the earlier Point Peninsula era, and later during the time when some of the major inland village sites were occupied.

Should Wintemberg's suggestion be correct that stamped collarless and low collared pottery (his third type) is early, then it is possible that the relative quantities of such pottery on eastern Ontario Iroquois sites may be useful as a time marker in the area. With this in mind the information set out in Table 4 has been compiled. While it is subject to the earlier comment regarding the statistical validity of small samples and the fact that the pre-Iroquoian and Iroquois pottery, although intermingled, likely represent a considerable span of time, there are a number of indications worthy of note.

On an overall average the river sites produced twice the amount of stamped low collared pottery found on the inland villages. The incidence of collarless sherds on the river sites slightly exceeds that on the inland villages. This relationship appears to bear out Wintemberg's prognostication and suggests that the river sites are earlier than are the inland villages.

Of the low collared stamp-decorated sherds it is only in the Depressed Lip category that the inland villages have the greater incidence. As such, it appears that Depressed Lip is a minor trait more prevalent on early inland villages, e.g. Salem, than it is on the later ones, e.g. Roebuck or the earlier river sites.

Emerson (1954, 1955) suggests that castellations can serve as an indication of time level in the Ontario Iroquois sequence. With this in mind Table 5 has been compiled to describe the thirty-three castellated rim sherds recovered from all nine sites. Table 5 can also be used in conjunction with Table 2 to determine the decoration and rim shape of sherds on which castellations occur. Emerson (1955:2) under the nomenclature "Classic Early", considers the incipient pointed castellation to be early in the southwestern and central Ontario Iroquois sequence and at present there is no reason to believe it is other than early in eastern Ontario. On this basis the fact that 73 percent of the castellations on the river sites are incipient pointed, as opposed to 64 percent at Beckstead, 57 percent at Salem, and 19 percent at Gray's Creek, supports the suggestion that the river sites are earlier than the inland villages. The use of vertical rows of punctate circles as a castellation decoration, four on an Onondaga Triangular sherd, five on a Lanoraie Mixed sherd, and six on a Durfee Underlined sherd, makes a case for the equally early introduction of the punctate circle decoration in the eastern Ontario Iroquois sequence. As such, it can not always be equated to the Roebuck time level, but this is not a reason to deny the possibility that there may not have been an upward surge in its use later in Roebuck times. One classic pointed castellation on a Durfee Underlined sherd from the Northwest Thompson site and one incipient pointed castellation on a Swarthout Dentate rim sherd from the East Ross site have a slight overhang. This suggests a nascent characteristic that increased as the state of

the art developed to the point where a one to two-inch overhang became possible as is found on the sophisticated versions which occur in considerable quantities on the inland village sites. The prevalence of incipient pointed castellations on Ontario Horizontal sherds appears to indicate that the sherds are relatively late in the evolution of that pottery type in view of MacNeish's statement (1952:16) that castellations are rare on typical sherds of this type. It follows, therefore, that Ontario Horizontal in eastern Ontario cannot be equated in time with that in south-western, and possibly central, Ontario.

Decorated pot lips are common at Salem and Gray's Creek and to a lesser extent at Beckstead. Although they occur at Roebuck they do not appear to be as dominant a characteristic. In the event this trait might be useful as a time marker the information in Table 6 has been compiled. Only 3.7 percent of all rim sherds from all nine river sites have lip decorations whereas 35 percent at Salem, 25 percent at Gray's Creek, and 17 percent at Beckstead are decorated. This appears to indicate that lip decoration is a trait which flowered during the period when some of the earlier inland village sites were occupied, but which did not continue through to Roebuck times to the same extent.

MacNeish (1952:79, 82) considers pottery decorated with cord-wrapped stick impressions to be early, and it is a common decorative technique on pre-Iroquoian pottery (Ritchie and MacNeish 1949). Table 7 indicates the occurrence of this technique on pottery from the river sites. The twelve rim sherds involved represent 3.3 percent of all the rim sherds from the nine river sites. This is considerably more than is found on the inland village sites where only 0.2 percent occurs at Salem with none at either Gray's Creek or Beckstead. Two cord-marked body sherds occur in the Gogo site sample representing 0.5 percent of the body sherds. At Salem 1.2 percent of the body sherds and 1.2 percent of the shoulder sherds are cord-marked. At Gray's Creek 4.7 percent of the body sherds are cord-marked while at Beckstead there are none. It would appear therefore that cord-wrapped stick-impressed rims are a valid early time marker in this area whereas the evidence available on cord-marked body sherds is, at present, so inconclusive as to deny the use of this trait to the same extent.

Tables 1 and 2 mention Ontario Horizontal, Iroquois Linear, Durfee Underlined, and Onondaga Triangular rim sherds. In many cases these sherds, while undoubtedly belonging to the pottery type mentioned, look slightly foreign and crude in comparison with typical sherds of the type. Although the decorative motif, technique, and rim shape all meet the requirements necessary to be classified under the established type, there remains an element of difference which sets them apart from typical sherds of their type. The Ontario Horizontal sherds in this category have widely spaced and wide, deeply incised lines on a collar somewhat higher than is normal. The Durfee Underlined and Onondaga Triangular specimens have wavy, shallow, incised or scraped lines at irregular intervals which are sometimes incomplete as regards their length. The general impression is one of poor workmanship indicative of a skill not yet developed to the same degree as that prevalent on the inland village sites. However there are a few Durfee Underlined, Onondaga Triangular, and Roebuck Low Collar sherds on the river sites which are fully as well executed as classic examples of similar sherds from Roebuck. It is for consideration whether these are early sherds or those left on the site later than their crude counterparts but found intermingled with them and in some cases, with pre-Iroquoian pottery, due to the very thin artifact-bearing mantel found on the river sites.

The six sherds from Gogo and four from Butternut classified Coarse Oblique Dentate are grouped under that heading because of their similarity in technique, motif, and rim shape. Similar sherds were found at Roebuck (Smith 1923:129, fig 7, Wintemberg 1936:135, fig 37). At Salem 26 rim sherds, representing 32.5 percent of the Swarthout Dentate sample which in turn was 3 percent of the site sample, are coarse dentate stamped. At Gray's Creek there were 3 coarse dentate stamp rim sherds while at Beckstead there were none. There is no suggestion at this time that this group of sherds should be accepted as an Iroquois pottery type and the wide time span encompassed appears to deny its use as a qualitative time marker. It remains to be seen whether its quantitative occurrence will be useful in this regard.

It has been suggested by Emerson (1954:85) that the carinated or ridged pot-shoulder is a late trait in the Ontario Iroquois sequence. P. Schuyler Miller, in private correspondence with the author, also suggests the use of this characteristic as a late time marker. On the Gogo site only seven of the 39 shoulder sherds recovered, 17.9 percent, are carinated. At Gray's Creek 37 percent of the shoulders are carinated; at Beckstead 52 percent; and at Salem 56 percent are so shaped. This comparison supports Emerson's and Miller's hypothesis and reinforces the conclusion reached from the analysis of the rim sherds that the river sites are earlier than the inland villages.

The incidence of check-stamped marked body sherds has been suggested by MacNeish (1952:82) and Emerson (1954:80) as a useful time marker on the basis that it is present on Iroquois pottery as a vestige of an earlier pre-Iroquoian trait. Unfortunately only body sherds from the Gogo site are available for analysis. Nevertheless the characteristics of these 394 sherds shed some light on the problem. Three hundred and nine, 78.4 percent, are check stamped; 49, 12.4 percent, are plain; 34, 8.6 percent, ribbed-paddle marked; and two, 0.5 percent, are cord-marked. At Roebuck 10 percent of the body sherds are check-stamped while Salem, Gray's Creek, and Beckstead each have 14 percent of the body sherds so decorated. This comparison appears to bear out MacNeish's and Emerson's contention and supports the relative position of the river sites in the eastern Ontario Iroquois sequence derived from the rim and shoulder sherd analysis.

MacNeish (1952:16) states that Ontario Horizontal, together with Fonda Incised and Cayuga Horizontal, "might well be combined to form a Super-Pan-Iroquoian type". The presence of Ontario Horizontal on the river sites substantiates MacNeish's opinion in this regard insofar as it adds a heretofore unreported area and time level to the instances applicable. It is likely that in this case Ontario Horizontal is ancestral to Salem Horizontal (Pendergast n.d.) which occurs in considerable quantities on the inland village sites nearby in eastern Ontario. Salem Horizontal in turn is undoubtedly closely related to Fonda Incised. The co-existence of Iroquois Linear and Ontario Horizontal also tends to support MacNeish's hypothesis that the former may be ances-

tral to the latter. The relative incidence of the two types on all sites combined, 18.7 percent Ontario Horizontal and 4.5 percent Iroquois Linear, appears to serve as an indicator that the time period involved is closer to the late incised pottery era than it is to the earlier era when the push-pull technique was in vogue. This is also borne out by the small number of early cord-wrapped stick-impressed sherds recovered.

Wright (1960:3) considers Middleport Oblique, Lawson Incised, and Ontario Horizontal to be the "trio of pottery types which is regarded as the major marker of the Middleport Horizon." He goes on to state that Iroquois Linear, Middleport Criss-Cross, Lawson Opposed, and Pound Necked are frequently found in association. The presence of Ontario Horizontal on the river sites to the amount of 18.7 per cent, Lawson Incised 5.6 per cent, Iroquois Linear 4.5 per cent, and Pound Necked 2.5 per cent suggests some relationship between the river sites and the Middleport Horizon. It would appear that while Ontario Horizontal, Lawson Incised, Iroquois Linear, and Pound Necked are pottery types common to both the Middleport Horizon and the river sites, the remaining Middleport Horizon pottery types are replaced on the river sites by low collared and collarless pottery varieties decorated with a stamping technique which persists in the area through to Roebuck times.

He also claims (*ibid.*) Middleport Horizon, "projectile points tend to be of the narrow, triangular, side notched variety rather than the unnotched triangular form which is characteristic of later Iroquois sites." Projectile points from the river sites being unnotched triangular shapes do not support the conclusions reached on the basis of the ceramic analysis. Unfortunately the lack of pipes and bone artifacts from the river sites does not permit the comparison to be extended to these artifacts.

Points

The Levanna points recovered are typical specimens of their type. The Madison points on the other hand appear to be thicker than usual and not as well executed. They tend to be more equilateral than isosceles. Whether these attributes will emerge

as traits of the early Iroquois in this area remains to be seen. The existence of Levanna points and Owasco-like pottery appears to indicate that there are grounds for suspecting Owasco-like antecedents for the eastern Ontario Iroquois.

CONCLUSION

Although the validity of certain of the conclusions reached from the analysis may be open to question on the basis that insufficient statistical depth exists in the small samples available, it should be recognized that the inherent characteristics of known small river sites dictates that conclusions will have to stem from small samples if this eastern Ontario Iroquois horizon is to be considered at present.

From the point of view of the Iroquois pottery specialist a number of tentative conclusions are suggested. Probably the most significant is the emergence of stamped low collared and collarless pottery as an early Iroquois trait as was foreseen by Wintemberg. At present this characteristic appears to apply to eastern Ontario east of the Rideau Canal, south-central Quebec, and in the light of Miller's experience, Vermont state. Equally interesting, and not yet wholly supported by the author, is the possibility that dentate-stamp decorated pottery, e.g. Swarthout Dentate, Lanoraie Mixed, and Oblique Dentate, is more common on the early inland village sites than it is on the still earlier Iroquois river sites. As a result the incidence of dentate-stamp decorated pottery may not be indicative *per se* of antiquity, particularly if it involves a comparison of Iroquois sites on the St. Lawrence River and those inland. The incidence and complexity of lip decorations, believed to be indicative of early sites (Pendergast n.d.), is also likely subject to this comment. The punctate circle decoration occurs early in the eastern Ontario Iroquois sequence hence its presence cannot be equated with Roebuck times only. Carinated or ridged shoulders are emerging as a valuable time marker in the area.

Approached with a less microscopic outlook there are interesting possibilities. On the basis of the ceramic analysis the

river sites appear to be related to the Middleport Horizon in a manner not yet fully understood. It is possible that they are the eastern Ontario equivalent on that time level.

It appears likely that there was a time relatively early in the development of the eastern Ontario Iroquois when their pattern of daily life more resembled that of their nomadic woodland ancestors than it did the historic Iroquois located in well established and sometimes fortified inland villages. Apparently they lived relatively defenceless in camps on the major waterways which they occupied for short periods, how long probably depending on the availability of fish and waterfowl. The absence of corn and beans on these sites suggests that farming was not yet a prime source of food. The small areas of the river sites suggests that family groups had not coalesced to form the large groups which later occupied the inland village sites.

ACKNOWLEDGEMENTS

I am indebted to Mr. George N. Gogo of Summerstown, Ontario, for making his extensive collection available to me. I wish to thank Dr. R.S. MacNeish and Dr. J.V. Wright, both of the National Museum of Canada, and Dr. W.A. Ritchie, New York State Archaeologist, for their comments on the manuscript. Nevertheless I accept full responsibility for the paper.

REFERENCES

BAILEY, J.H.

1938 An Analysis of Iroquois Ceramic Types. *American Antiquity* 34:333-338.

BEAUCHAMP, WILLIAM M.

1898 Earthenware of the New York Aborigines. *New York State Museum Bulletin* 22:75-142.

DAWSON, Sir JAMES W.

1860 Notes on Aboriginal Antiquities Recently Discovered in Montreal. *Canadian Naturalist and Geologist* 5:430-449.

1861 Additional Notes on Aboriginal Antiquities Found at Montreal. *Canadian Naturalist and Geologist* 6:362-373.

1888 *Fossil Men and Their Modern Derivatives*. London.

EMERSON, J.N.

1954 The Archaeology of the Ontario Iroquois. Doctoral thesis. University of Chicago.

1955 Castellation Development Among the Iroquois. *Ontario Archaeological Society Research Guide* 1.

1956 Understanding Iroquois Pottery in Ontario. Toronto, Ontario Archaeological Society.

HOLMES, W.H.

1903 Aboriginal Pottery of the Eastern United States. Twentieth Annual Report of the Bureau of American Ethnology.

MACNEISH, RICHARD S.

1952 Iroquois Pottery Types. *National Museum of Canada Bulletin* 124.

MILLER, P. SCHUYLER

n.d. Private correspondence concerning Iroquois pottery from the state of Vermont.

PENDERGAST, JAMES F.

1962 The Crystal Rock Site: An Early Onondaga-Oneida Site in Eastern Ontario. *Pennsylvania Archaeologist Bulletin* 1:21-34.

1963 The Payne Site. *National Museum of Canada Bulletin* 193:1-27.

1964 The Salem, Gray's Creek, and Beckstead Sites: Three Iroquois Components in Eastern Ontario. *National Museum of Canada*. In press.

RIDLEY, F.

1958 The Boys and Barrie Sites. *Ontario Archaeological Society Publication* 4.

RITCHIE, WILLIAM A. and RICHARD S. MACNEISH

1949 The Pre-Iroquoian Pottery of New York State. *American Antiquity* 15:97-124.

RITCHIE, WILLIAM A.

1961 A Typology and Nomenclature of New York Projectile Points. *New York State Museum and Science Service Bulletin* 384.

SKINNER, J.A.

1921 Notes on Iroquois Archaeology. Indian Notes and Monographs Misc. 18. New York, Museum of the American Indian, Heye Foundation.

SMITH, HARLIN I.

1923 An Album of Prehistoric Canadian Art. Victoria Memorial Museum Bulletin 37.

WINTERBERG, W.J.

1936 Roebuck Prehistoric Village Site, Grenville County, Ontario. National Museum of Canada Bulletin 83.

1939 Lawson Prehistoric Village Site, Middlesex County, Ontario. National Museum of Canada Bulletin 94.

1946 The Sidney-Mackay Village Site. American Antiquity 2:155-182.

1948 The Middleport Prehistoric Village Site. National Museum of Canada Bulletin 109.

WRIGHT, J.V.

1960 The Middleport Horizon. Anthropologica 2:113-120.

TABLE 1 — RIM SHERD ANALYSIS BY SITES

Pottery Type/Group	Gogo	Cameron	East Ross	SW	Thompson	Butternut	SE	Thompson	South Ross	Kit	Kit	NW	Thompson	Totals	Percent of Total Sample
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	
Ontario Horizontal	20	11.7	40	40.4	2	10.0	1	6.3	1	7.7	2	18.2	—	—	18.7
Stamped Low Collared	29	17.0	11	11.1	1	5.0	1	5.3	4	25.0	3	23.1	2	18.2	—
Salem Lip	19	11.1	2	2.0	1	5.0	2	10.5	1	6.3	1	7.7	2	18.2	—
Dutch Hollow Notched	25	14.6	—	—	—	—	—	—	—	—	—	—	6	75.0	—
Chevrons	4	2.3	10	10.1	1	5.0	2	10.5	—	—	1	7.7	—	—	24
Niagara Collared	16	9.4	5	5.1	—	—	—	—	—	—	—	—	—	—	21
Lawson Incised	12	7.0	1	1.0	6	30.0	—	—	—	—	1	7.7	—	—	20
Durfee Underlined	11	6.4	3	3.0	1	5.0	1	5.3	2	12.5	—	—	1	50.0	19
Iroquois Linear	6	3.5	7	7.1	—	—	—	—	2	12.5	—	—	1	12.5	—
Oblique Coarse Dentate	6	3.5	—	—	—	—	—	—	4	25.0	—	—	—	—	16
Pound Necked	6	3.5	3	3.0	—	—	—	—	—	—	—	—	—	—	10
Pseudo-Huron Incised	—	—	2	2.0	3	15.0	1	5.3	—	—	1	7.7	—	—	9
Roebuck Low Collar	—	—	—	—	1	5.0	—	—	—	—	—	—	5	45.5	1
Salem Mixed	—	—	—	—	—	—	5	26.3	—	—	2	15.4	—	—	7
Lanoriae Crossed Lip	4	2.3	2	2.0	—	—	—	—	—	—	—	—	—	—	6
Ripley Plain	2	1.2	—	—	—	—	—	—	—	—	1	7.7	—	—	1
Thurston Horizontal	—	—	—	—	—	—	—	—	1	5.3	1	6.3	—	—	3
Depressed Lip	1	0.6	—	—	—	—	—	—	—	—	—	—	—	—	0.6
Scalped Lip	1	0.6	—	—	—	—	—	—	—	1	5.3	—	—	—	1
Onondaga Triangular	—	—	1	1.0	—	—	—	—	1	5.3	—	—	—	—	1
Oak Hill Corded	—	—	—	—	—	—	—	—	1	5.3	—	—	—	—	1
Lanoriae Mixed	—	—	—	—	—	—	—	—	1	5.0	—	—	—	—	1
Genoa Frilled	—	—	—	—	—	—	—	1	5.0	—	—	—	—	—	1
Swarthout Dentate (Coarse)	—	—	—	—	—	—	—	1	5.0	—	—	1	6.3	—	1
Lanoriae Crossed	—	—	—	—	—	—	—	—	1	6.3	—	—	2	15.4	—
Untyped	9	5.3	12	12.1	2	10.0	3	15.8	—	—	2	15.4	—	—	3
TOTAL	171	—	99	—	20	—	19	—	16	—	13	—	11	—	28
Percent of Total Sample	47.6	—	27.6	—	5.6	—	5.3	—	4.5	—	3.6	—	3.1	—	359

TABLE 2 — TYPE, INCIDENCE, SHAPE,
AND MOTIF OF RIM SHERDS BY SITES

Site	Type/Group	Shape	Motif	No.	Remarks
Gogo (171 rim sherds)	Stamped Low Collared (29 - 17.0%)	43	146	6	same pot-stamp dec- oration on lip pulled down onto collar
		52	30	2	
		3	6	1	
		44	146	1	stamp decoration on lip pulled down onto collar
		45	71	1	
		46	146	1	stamp decoration on lip pulled down onto collar
		69	42	1	
		95	28	1	
		104	7	1	
		104	44	1	
		105	11	1	
		108	21	1	
		108	29	1	
		110	39	1	
		114	16	1	
		119	27	1	
		121	45	1	
		126	9	1	
		130	34	1	
		150	18	1	
		154	22	1	
		154	118	1	
		162	17	1	
	Dutch Hollow Notched (25 - 14.6%)	80	66	9	same pot
		90	53	4	
		78	53	3	
		91	53	2	
		65	63	1	
		66	64	1	
		72	53	1	
		81	57	1	cord - wrapped stick impressed
		84	53	1	
		84	70	1	
		89	63	1	

Site	Type/Group	Shape	Motif	No.	Remarks
	Ontario Horizontal (20 - 11.7%)	?	72	8	same pot
		5	72	4	three classic - pointed castellations
		149	103	3	one classic - pointed castellation
		1	72	1	
		16	?	1	one classic - pointed castellation
		19	75	1	
		144	103	1	
		?	98	1	
	Salem Lip (19 - 11.1%)	58	47	3	
		60	148	3	same pot
		64	147	3	
		71	68	2	
		57	56	1	
		57	59	1	
		58	44	1	
		60	59	1	
		64	plain	1	
		76	60	1	
		82	38	1	
		?	48	1	
	Niagara Collared (16 - 9.4%)	13	36	14	same pot
		53	36	1	
		127	plain	1	
	Lawson Incised (12 - 7.0%)	10	9	2	
		122	6	2	
		14	7	1	
		36	6	1	
		37	6	1	
		38	6	1	
		39	6	1	
		39	7	1	
		51	12	1	
		120	6	1	
	Durfee Underlined (11 - 6.4%)	1	14	11	same pot — shallow irregular incising notches below collar — two classic-pointed castellations

Site	Type/Group	Shape	Motif	No.	Remarks
	Iroquois Linear (6 - 3.5%)	11	73	1	incipient-pointed cas-tellation
		30	80	1	
		31	69	1	
		63	74	1	
		68	75	1	
		72	75	1	
	Pound Necked (6 - 3.5%)	35	111	6	same pot
	Coarse Oblique Dentate (6 - 3.5%)	16	1	4	one incipient-pointed castellation
		14	5	1	
		125	2	1	
	Lanoraie Crossed Lip (4 - 2.3%)	112	137	2	
		21	138	1	cord-wrapped stick-impressed collar over horizontal push-pull lines
		77	136	1	
	Chevrons (4 - 2.3%)	22	127	2	
		49	116	1	
		56	114	1	
	Ripley Plain (2 - 1.2%)	60	36	2	same pot
	Depressed Lip (1 - 0.6%)	113	15	1	
	Scalloped Lip (1 - 0.6%)	79	149	1	
	Untyped (9 - 5.3%)	54	143	6	same pot
		128	130	2	same pot
		111	129	1	
Cameron (99 rim sherds)	Ontario Horizontal (40 - 40.4%)	102	84	3	same pot
		132	101	3	same pot
		48	96	2	same pot
		48	102	2	same pot
		131	99	2	same pot
		132	98	2	same pot
		132	100	2	same pot
		143	98	2	same pot

Site	Type/Group	Shape	Motif	No.	Remarks
		15	108	1	
		28	83	1	
		32	67	1	
		32	102	1	
		32	105	1	incipient-pointed castellation
		34	109	1	
		41	102	1	
		42	103	1	
		123	110	1	
		132	99	1	
		144	85	1	
		159	97	1	
		161	92	1	
		164	101	1	
		168	93	1	
		?	82	1	
		?	102	6	six incipient - pointed castellations
	Stamped Low Collared (11 - 11.1%)	99	26	3	same pot
		99	24	1	
		100	37	1	
		100	51	1	
		100	52	1	
		101	20	1	
		107	32	1	
		124	48	1	
		166	23	1	
	Chevrons (10 - 10.1%)	9	113	4	same pot — one incipient - pointed castellation
		50	114	2	same pot — cord-wrapped stick-impressed chevrons on the neck
		5	120	1	
		9	119	1	
		139	123	1	
		155	125	1	
	Iroquois Linear (7 - 7.1%)	20	81	1	incipient-pointed castellation
		26	117	1	incipient-pointed castellation

Site	Type/Group	Shape	Motif	No.	Remarks
		31	132	1	push-pull looks like end-to-end stamping
		85	87	1	
		129	88	1	
		142	77	1	push-pull looks like end-to-end stamping
		157	78	1	incipient-pointed castellation
	Niagara Collared (5 - 5.1%)	87	150	3	same pot
		54	plain	2	same pot
	Durfee Underlined (3 - 3.0%)	8	normal	1	lip decoration of dots and triangles
		71	normal	1	child's pot
		133	normal	1	
	Pound Necked (3 - 3.0%)	106	112	3	same pot — one incipient - pointed castellation
	Lanorae Crossed Lip (2 - 2.0%)	109	139	1	
		158	140	1	
	Salem Lip (2 - 2.0%)	75	12	1	
		83	13	1	
	Pseudo-Huron Incised (2 - 2.0%)	40	7	1	
		153	11	1	
	Lawson Incised (1 - 1.0%)	19	6	1	
	Onondaga Triangular (1 - 1.0%)	133	normal	1	punctate notches under collar, incipient-pointed castellation with vertical row 4 punctate circles
	Untyped (10 - 10.1%)	7	126	7	same pot
		31	8	2	cord-wrapped stick-impressed chevrons on the neck — one incipient-pointed castellation
		116	8	1	

Site	Type/Group	Shape	Motif	No.	Remarks
East Ross (20 rim sherds)	Lawson Incised (6 - 30%)	24	9	6	same pot
	Pseudo-Huron Incised (3 - 15%)	163 169	9 49	2 1	same pot
	Ontario Horizontal (2 - 10%)	11 27	72 90	1 1	
	Chevrons (1 - 5%)	87	111	1	
	Genoa Frilled (1)	152	76	1	
	Salem Lip (1)	59	149	1	
	Stamped Low Collared (1)	97	41	1	
	Roebuck Low Collar (1)	?	Durfee Under- lined	1	
	Durfee Underlined (1)	133	normal	1	ladder - plait decoration in open triangles
	Swarthout Dentate (1)	2	Durfee Under- lined	1 1	coarse dentate — incipient-pointed castellation decorated with vertical plait of short horizontal lines — castellation has slight overhang
South-West Thompson (19 rim sherds)	Untyped (2 - 10%)	39	128	1	incipient-pointed castellation decorated with opposed oblique lines apex up — slight overhang
		156	124	1	
	Salem Mixed (5 - 26.3%)	26 133 136	107 135 134	2 2 1	same pot same pot
	Salem Lip (2 - 10.5%)	61 165	40 54	1 1	
	Chevrons (2 - 10.5%)	12 15	115 111	1 1	

Site	Type/Group	Shape	Motif	No.	Remarks
Butternut (16 rim sherds)	Ontario Horizontal (1 - 5.3%)	138	86	1	
	Thurston Horizontal (1)	47	25	1	horizontal lines are broad incised — top vertical lines are long rectangular stamp — bottom vertical lines are short rectangular stamp — lip decorated with transverse rectangular stamp 1 mm deep
	Stamped Low Collared (1)	96	55	1	
	Oak Hill Corded (1)	25	91	1	incipient-pointed castellation
	Pseudo-Huron Incised (1)	148	6	1	
	Durfee Underlined (1)	140	normal	1	incipient-pointed castellation decorated with vertical row 6 punctate circles — incising crude — stamped notches at base of collar — inside lip decorated with vertical rectangular stamp
	Lanoraie Mixed (1)	?	Onondaga Triangular	1	incipient - pointed castellation decorated with vertical row 5 punctate circles — large deep circular notches at base of collar — fine dentate stamp smoothed over — lip overted sharply to overhang collar
	Untyped (3 - 15.8%)	70 141 146	144 94 145	1 1 1	
	Oblique Dentate (4 - 25%)	103 ?	3 4	3 1	same pot

Site	Type/Group	Shape	Motif	No.	Remarks
South-East Thompson (13 rim sherds)	Stamped Low Collared (4 - 25%)	10 88 98 167	41 58 65 50	1 1 1 1	
	Iroquois Linear (2 - 12.5%)	18	89	2	same pot
	Durfee Underlined (2)	24 132	normal normal	1 1	} crude shallow ir- regular incising
	Lanoraie Crossed (1 - 6.3%)	?	141	1	
	Salem Lip (1)	82	43	1	
	Ontario Horizontal (1)	17	95	1	
	Thurston Horizontal (1)	29	normal	1	incipient-pointed cas- tellation decorated with a plait of verti- cal incised lines
	Stamped Low Collared (3 - 23.1%)	55 94 160	16 61 31	1 1 1	incipient-pointed cas- tellation
	Salem Mixed (2 - 16.4%)	23 135	133 131	1 1	
	Ontario Horizontal (1 - 7.7%)	6	104	1	
South Ross (11 rim sherds)	Salem Lip (1)	6	10	1	
	Ripley Plain (1)	86	plain	1	
	Lawson Incised (1)	4	7	1	incipient - rounded castellation — oblique lines apex down
	Chevrons (1)	145	122	1	
	Pseudo-Huron Incised (1)	151	19	1	
	Untyped (2 - 15.4%)	92 117	46 142	1 1	
	Roebuck Low Collar (5 - 45.5%)	137	Durfee Under- lined	5	same pot- notches at base of collar are cord - wrapped, stick- impressed — and in- terior of lip decorated with paddle-edge im- pressions

Site	Type/Group	Shape	Motif	No.	Remarks
<i>Kit Kit</i> (8 rim sherds)	Ontario Horizontal (2 - 18.2%)	74 74	91 96	1 1	
	Salem Lip (2)	73	62	2	same pot
	Stamped	93	35	2	same pot
	Low Collared (2)				
	Chevrons (6 - 75%)	149 33	121 118	5 1	same pot
	Iroquois Linear (1 - 12.5%)	162	79	1	
	Roebuck Low Collar (1)	147	normal	1	Durfee Underlined motif in crude incising
<i>North-West</i> <i>Thompson</i> (2 rim sherds)	Durfee Underlined (1 - 50%)	134	normal	1	crude irregular incised lines — classic pointed castellation with slight overhang
	Stamped Low Collared (1 - 50%)	115	33	1	

TABLE 3 — COMPARISON OF THE INCIDENCE
OF EARLY IROQUOIS POTTERY TYPES

	Pottery Types (%)							
	<i>Iroquois Linear</i>	<i>Lanoraie Crossed</i>	<i>Lanoraie Mixed</i>	<i>Pound Necked</i>	<i>Swarthout Dentate</i>	<i>Ontario Horizontal</i>	<i>Lawson Incised</i>	<i>Totals on Site Groups</i>
<i>River Sites</i>								
Gogo	4	—	—	4	—	12	7	—
Cameron	7	—	—	3	—	40	1	—
Kit Kit	13	—	—	—	—	—	—	—
NW Thompson	—	—	—	—	—	—	—	—
SW Thompson	—	—	5	—	—	5	—	—
SE Thompson	—	—	—	—	—	8	8	—
South Ross	—	—	—	—	—	18	—	—
East Ross	—	—	—	—	5	10	30	—
Butternut	13	6	—	—	—	6	—	—
<i>Total</i>	37	6	5	7	5	99	46	205
<i>Average per site</i>	4.1	0.7	0.6	0.8	0.6	11.0	5.1	—
<i>Inland Village Sites</i>								
Roebuck	—	—	—	—	1	9	2	—
Beckstead	—	—	5	—	1	—	—	—
Gray's Creek	2	—	1	—	4	—	—	—
Salem	—	0.4	5	—	3	—	—	—
Lanoraie	2	4	7	1	28	5	3	—
<i>Total</i>	2	6.4	18	1	37	14	5	83.4
<i>Average per site</i>	0.4	12.8	3.6	0.2	7.4	4.8	1.0	—

TABLE 4 — COMPARISON OF THE INCIDENCE
OF LOW COLLARED AND COLLARLESS POTTERY

SITES	Pottery Types (%)							
	1	2	3	4	5	6	7	8
Stampd Low Collared								
River Sites								
Gogo	17	11	—	—	15	1	2	—
Cameron	11	2	—	—	—	—	2	—
Kit Kit	—	—	—	—	—	—	—	13
NW Thompson	50	—	—	—	—	—	—	—
SW Thompson	5	11	—	—	—	—	—	—
SE Thompson	23	8	—	—	—	—	—	—
South Ross	18	18	—	—	—	—	—	46
East Ross	5	5	5	—	—	—	—	5
Butternut	25	6	—	—	—	—	—	—
Total	154	61	5	15	1	1	4	64
Average per site	17.1	6.8	0.6	1.7	0.1	0.1	4.4	7.1
Inland Village Sites								
Roebuck	5	3	—	0.5	0.02	0.2	0.1	10
Roebuck *	7	6	—	—	—	0.6	1	9
Gray's Creek	11	8	—	—	—	2	12	12
Salem	11	4	—	0.3	0.3	1	6	8
Total	34	21	0	0.8	0.32	3.8	19.1	39
Average per site	8.5	5.3	0	0.2	0.04	0.4	2.1	4.3

* Figures for Roebuck other than columns 4 and 8 are result of authors re-analysis of Wintembergs' material. Figures in column 4 and 8 are from MacNeish 1952:58, 65.

TABLE 5 — CASTELLATION ANALYSIS

<i>Castellation Type</i>	<i>Site</i>	<i>No.</i>	<i>Associated Pottery Type</i>
Incipient-Pointed (24 - 72.7%)	Cameron	7 3 1 1 1 1	Ontario Horizontal Iroquois Linear Chevrons Pound Necked Durfee Underlined Untyped
	Gogo	2 1	Iroquois Linear Coarse Oblique Dentate
	SW Thompson	1 1 1	Oak Hill Corded Durfee Underlined Lanoraie Mixed
	East Ross	1 1	Swarthout Dentate Untyped
	SE Thompson	1	Stamped Low Collar
	Butternut	1	Thurston Horizontal
Classic-Pointed (8 - 24.2%)	Gogo	5 2	Ontario Horizontal Durfee Underlined
	NW Thompson	1	Durfee Underlined
Incipient-Rounded (1 - 3.0%)	SE Thompson	1	Lawson Incised

TABLE 6 — LIP DECORATIONS

<i>Decoration</i>	<i>Associated Pottery Type</i>	<i>No. Sherds</i>	<i>Site</i>
Crossed paddle-edge	Lanoraie Crossed Lip ?	4 2	Gogo Cameron
Transverse paddle-edge pulled down onto collar	Stamped Low Collar	8	Gogo
Transverse rectangular stamp	Thurston Horizontal	1	SW Thompson
Transverse paddle-edge	Roebuck Low Collar	1	South Ross
Dots and paddle-edge triangles	Durfee Underlined	1	Cameron
Deep line around circumference	Depressed Lip	1	Gogo

TABLE 7 — CORD-WRAPPED STICK - DECORATED POTTERY

<i>Cord-wrapped Stick Decoration</i>	<i>Associated Pottery Type</i>	<i>No. Sherds</i>	<i>Site</i>
Notches at base of collar	Roebuck Low Collar	5	South Ross
Chevrons with open triangles on neck	Untyped	2	Cameron
Chevrons on collar	Chevrons	2	Cameron
Notches in lip	Dutch Hollow Notched	1	Gogo
Collar	Lanoraie Crossed Lip	1	Gogo
Chevrons and horizontal lines	Oak Hill Corded	1	SW Thompson

PLATE 1

Fig 1	Ontario Horizontal	— Cameron
Fig 2	Ontario Horizontal	— Cameron
Fig 3	Ontario Horizontal	— Gogo
Fig 4	Ontario Horizontal	— Cameron
Fig 5	Ontario Horizontal	— South Ross
Fig 6	Ontario Horizontal	— Southeast Thompson
Fig 7	Stamped Low Collared	— Cameron
Fig 8	Stamped Low Collared	— Cameron
Fig 9	Stamped Low Collared	— Butternut
Fig 10	Stamped Low Collared	— Southeast Thompson
Fig 11	Stamped Low Collared	— Gogo
Fig 12	Stamped Low Collared	— Northwest Thompson
Fig 13	Salem Lip	— Gogo
Fig 14	Salem Lip	— South Ross
Fig 15	Salem Lip	— Gogo
Fig 16	Salem Lip	— East Ross
Fig 17	Salem Lip	— Gogo
Fig 18	Dutch Hollow Notched	— Gogo
Fig 19	Dutch Hollow Notched	— Gogo
Fig 20	Chevrons	— Kit Kit
Fig 21	Chevrons	— Cameron
Fig 22	Chevrons	— Gogo
Fig 23	Niagara Collared	— Cameron
Fig 24	Niagara Collared	— Gogo
Fig 25	Lawson Incised	— East Ross
Fig 26	Lawson Incised	— Gogo
Fig 27	Lawson Incised	— Gogo

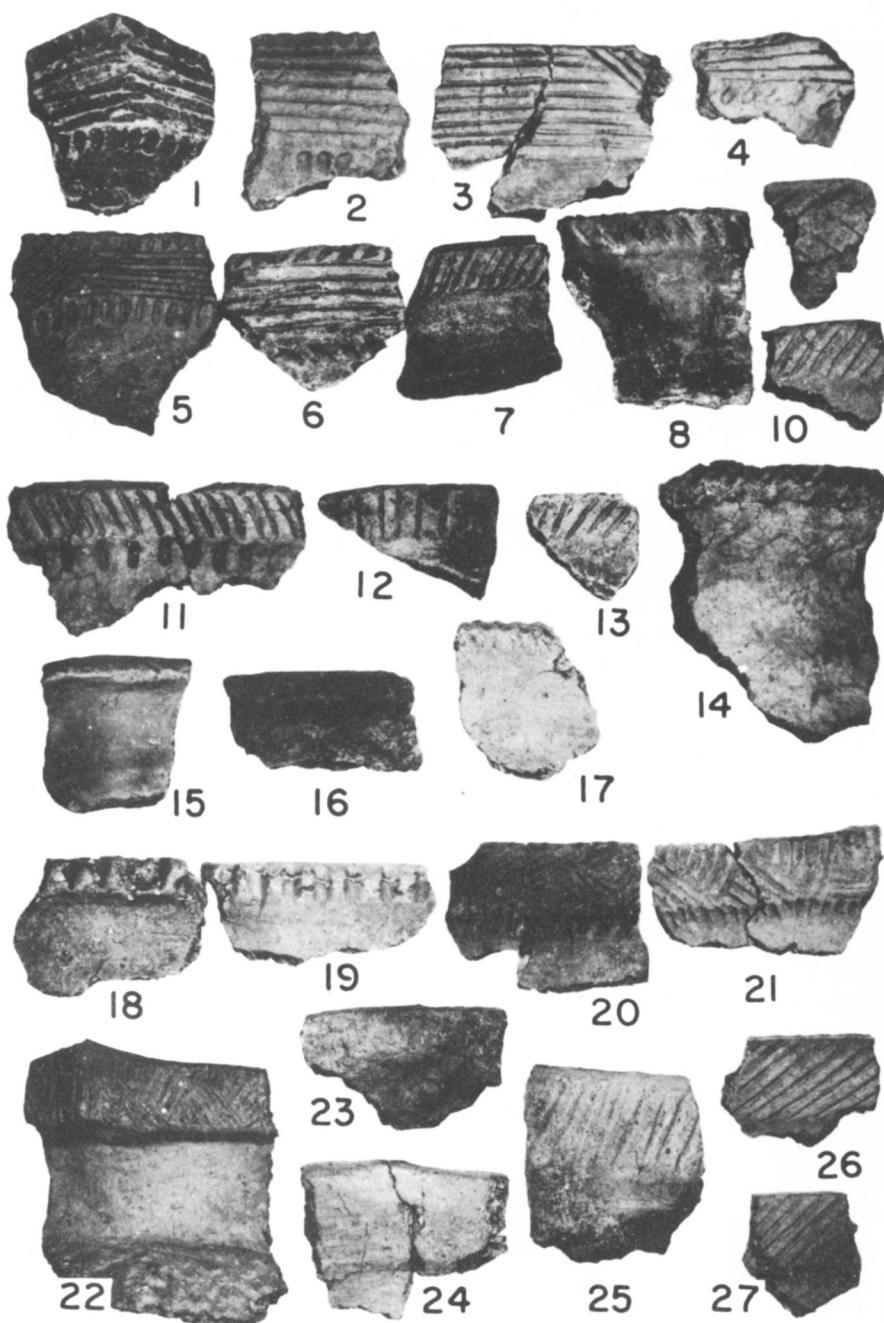


PLATE 2

Fig 1	Durfee Underlined	— Northwest Thompson
Fig 2	Durfee Underlined	— Gogo
Fig 3	Iroquois Linear	— Cameron
Fig 4	Iroquois Linear	— Gogo
Fig 5	Iroquois Linear	— Kit Kit
Fig 6	Iroquois Linear	— Cameron
Fig 7	Oblique Coarse Dentate	— Butternut
Fig 8	Oblique Coarse Dentate	— Gogo
Fig 9	Pound Necked	— Cameron
Fig 10	Pound Necked	— Gogo
Fig 11	Pseudo Huron Incised	— Southeast Thompson
Fig 12	Pseudo Huron Incised	— East Ross
Fig 13	Roebuck Low Collared	— East Ross
Fig 14	Roebuck Low Collared	— South Ross
Fig 15	Lonaraie Crossed Lip	— Gogo
Fig 16	Salem Mixed	— Southeast Thompson
Fig 17	Thurston Horizontal	— Butternut
Fig 18	Depressed Lip	— Gogo
Fig 19	Lonaraie Mixed	— Southwest Thompson
Fig 20	Swarthout Dentate	— East Ross
Fig 21	Scalloped Lip	— Gogo
Fig 22	Oak Hill Corded	— Southwest Thompson
Fig 23	Genoa Frilled	— East Ross
Fig 24	Lonaraie Crossed	— Butternut
Fig 25	Untyped	— Southeast Thompson
Fig 26	Untyped	— Cameron
Fig 27	Untyped	— Cameron
Fig 28	Untyped	— Gogo

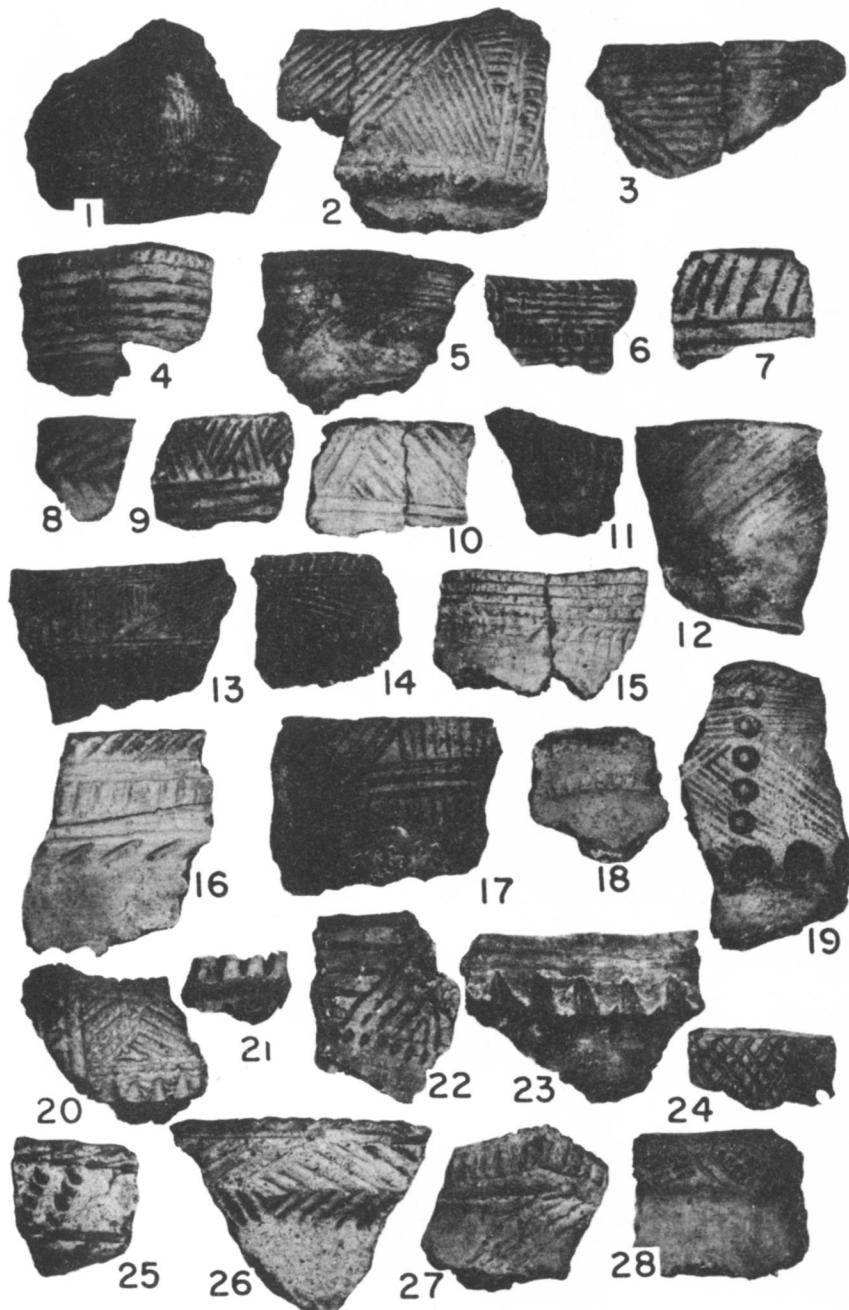
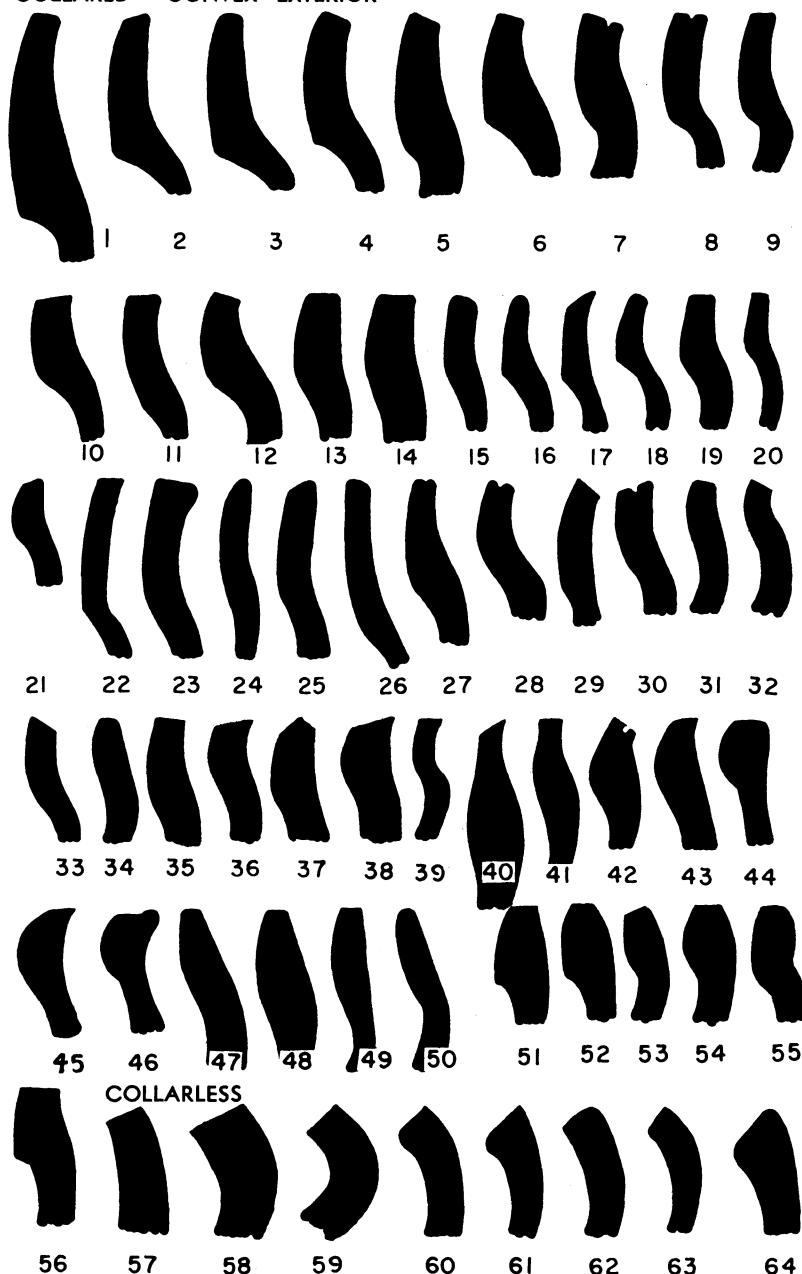
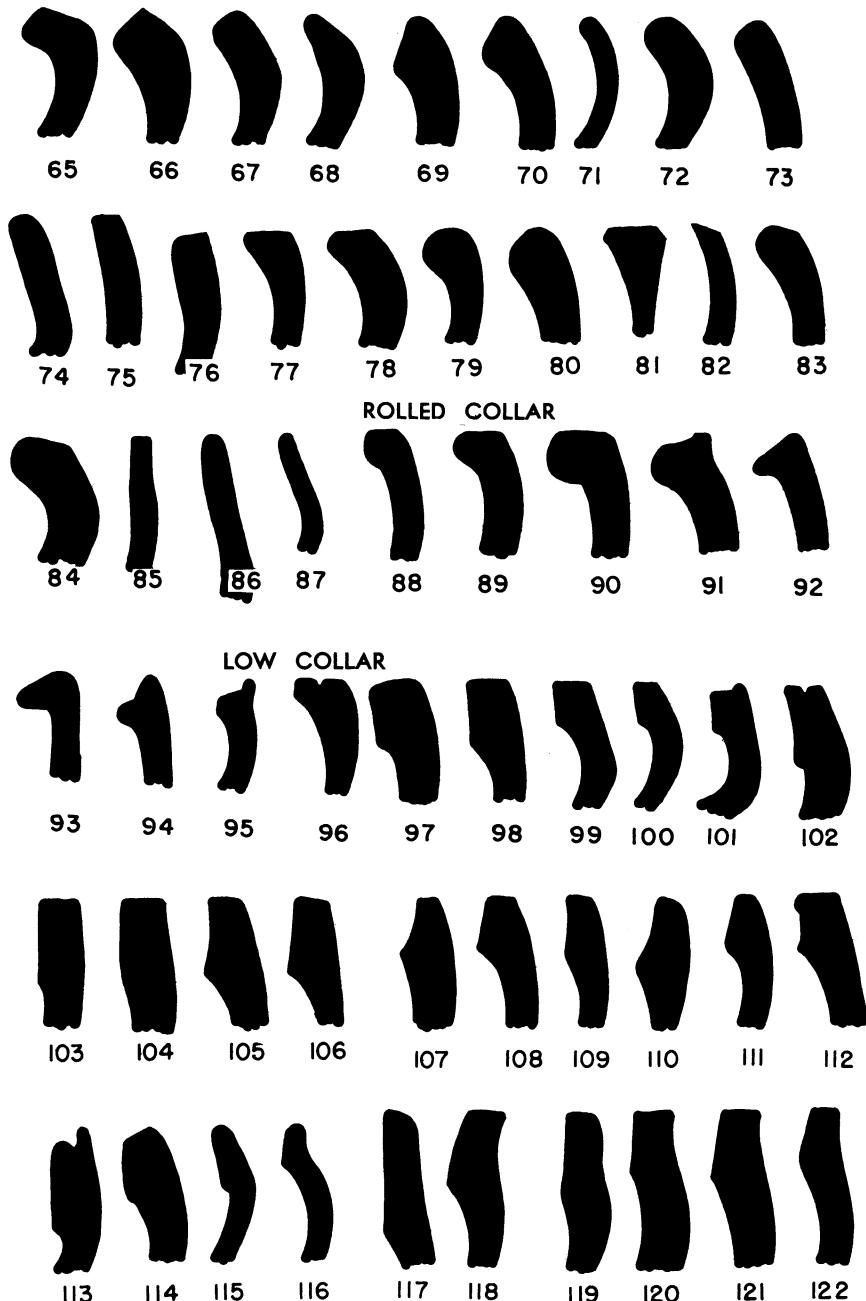


FIGURE 1 — RIMSHERD SHAPES

Scale: 3/5

COLLARED — CONVEX EXTERIOR





COLLARED — NON CONVEX EXTERIOR →



123



124



125



126



127



128



129



130



131



132



133



134



135



136



137



138



139



140



141



142



143



144



145



146



147



148



149



150



151



152



153



154



155



156



157



158



159



160



161



162



163

MISCELLANEOUS →



164



165



166



167



168



169

FIGURE 2 — RIMSHERD MOTIFS

A - INSIDE LIP B - LIP C - COLLAR

A										
B	00000		△△	====	○○○	000		:::::	○○○	
C	0000	0000	000	0000	0000	000 0000	000	000	000	000
	51	52	53	54	55	56	57	58	59	60
A										
B			000	0000		○○○	0000			
C	000	0000	000	0000	000	000	000	0000	0000	000
	61	62	63	64	65	66	67	68	69	70
A										
B	000000		0000			0000			0000	
C	000000	0000	0000	0000	0000	0000	0000	0000	0000	0000
	71	72	73	74	75	76	77	78	79	80
A								00000		
B			==	0000		0000				
C		00000	00000	00000	00000	00000	00000	00000	00000	00000
	81	82	83	84	85	86	87	88	89	90
A							00000			
B	000	—	—	====	====	000000	000000	—		
C	0000	0000	000	00000	00000	00000	00000	00000	00000	00000
	91	92	93	94	95	96	97	98	99	100

A - INSIDE LIP B - LIP C - COLLAR

A										
B		0000	—					00000		
C		0000						00000	00000	00000
	I01	I02	I03	I04	I05	I06	I07	I08	I09	I10
A										
B		00000	△△△			00000		00000	00000	
C		00000								00000
	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20
A									00000	
B		0000		0000	0000				00000	
C		00000	00000					00000		00000
	I21	I22	I23	I24	I25	I26	I27	I28	I29	I30
A	00000	000000								
B	00000	00000	000		—					
C	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
	I31	I32	I33	I34	I35	I36	I37	I38	I39	I40
A		0000								
B				00000				000	000	000
C	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
	I41	I42	I43	I44	I45	I46	I47	I48	I49	I50

A - INSIDE LIP B - LIP C - COLLAR