



ARCH NOTES

MARCH/APRIL 1979

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Newsletter of

The Ontario Archaeological Society (Inc.)

Dr. CARL BORDEN

British Columbia's Carl Borden died at Christmas, 1978. Thus passed, in the same year as our own Dr. Emerson, another pivotal figure in Canadian archaeology.

The Ontario Archaeological Society sends condolences to its B.C. colleagues.

In the eulogy in the recent issue of "The Midden", newsletter of the Archaeological Society of British Columbia, Dr. Borden is described as "father of B.C. archaeology", to which he was wholly devoted. His name will last in Ontario for as long as his "Borden Scheme" of Site Designation is used.

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ONTARIO HISTORICAL SOCIETY ANNUAL MEETING

The 1979 annual meeting of the Ontario Historical Society will be held in Orillia, hosted by the Orillia Historical Society. For details of the programme, contact the Ontario Historical Society at 1466 Bathurst Street, Toronto, Ontario M5R 3J3, telephone (416) 536-1353.

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CERAMICS AND LITHICS WORKSHOP Saturday, June 9th, 1979

All members who contact the O.A.S. office are registered for the workshop. There are no more vacancies, as the maximum number of twenty participants was reached.

For those 20 lucky people, here are the direction and information you need. The workshop is to be held at Scarborough College, Military Trail, (use Morningside south, exit from Highway 401), commencing at 10:00 a.m. in Marti's lab, Room H-111. Being a Saturday, only the front door will be open, and instructions on how to reach H-111 will be found there. The Cafeteria will be closed, so bring your own lunch. The vending machines will be operating, so bring some coins. Also bring the workshop fee of \$5.

Part of the workshop will take place out-of-doors, weather permitting. By all means bring a camp chair.

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WORKSHOP IN FOSSIL POLLEN IN ARCHAEOLOGY

The workshop announced for May 26th is filled but because of the interest shown and the surplus of applicants, Dr. Jock McAndrews has decided to offer a second workshop on the following Saturday June 2nd, at 10:00 a.m. to 5 p.m.

If interested, please call Dr. McAndrews at the Geobotany Laboratory, Royal Ontario Museum, where the workshop will be held, telephone 978-6271. Fee \$3.

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THE PRESIDENTS PAGE

This year I have the privilege of working for the Society in the capacity of President, and have the good fortune to be associated with a hard working executive. It is important that your executive be efficient and at the same time sensitive to the concerns of the membership during this period of change in the Society.

The last few years have witnessed a continuing expansion of the Society's geographic base through the establishment of new Chapters. We may soon have another, this time in Thunder Bay. With such expansion have come new concerns regarding membership representation on the Society executive and the financial structure of our organization. A new constitution, a set of By-Laws, is being drawn up in an effort to accommodate these issues generated by the Society's changing form, and we hope to present this document to the membership for review during the summer. Perhaps a final draft will be ready for our fall business meeting.

The efficiency of the Society should be significantly increased by the recent appointment of Mr. Charles Garrad on a part-time basis as Society administrator. He has assumed many of the corresponding secretary's more onerous tasks, as well as responsibility for organizing our records and library. (*) We hope to create a full-time administrator position, similar to that of the Ontario Historical Society, at some point in the next few years; however, that will require increased operating funds.

It is becoming more and more apparent that the Society cannot expect continuous and increased operating funds from government sources in order to supplement the money generated by our memberships. And frankly, increased government fundings can only erode our Society's valuable independence. We must appeal to the private sector, both individuals and corporation, for the required supplementary funds. In order to successfully accomplish our fund-raising objectives, we must create a well organized program with a convincing message. Plans are under way for such a program under the direction of Janet Cooper and a fall start-up date is envisioned at present.

Other major program directions for 1979 include the provision of increased opportunities for Society membership involvement in ongoing field research and for further education through workshops, tours and symposia. The by-word is participation - the more members to become actively involved, the stronger is our Society and the stronger Ontario archaeology itself becomes.

We have been given one year to implement these ambitious proposals, and it is my sincere hope that we will be able to pass on a stronger, re-organized Society to your 1980 executive.

* Our Administrator's present address and phone number is:

103 Anndale Drive
Willowdale, Ontario
M2N 2X3
Phone: (416) 223-2752

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A NEW YORK STATE BUS TOUR

PRESENTED BY THE LONDON CHAPTER OF THE ONTARIO ARCHAEOLOGICAL SOCIETY

OCTOBER 5-8, 1979

HIGHLIGHTING: Divers Lake
 Lewiston Mounds
 Museum of Anthropology, S.U.N.Y. Buffalo
 Rochester Museum and Science Center
 New York State Museum, Albany
 Serpent Mounds, Ontario
 Peterborough Petroglyphs, Ontario

The \$90.00 cost includes all travel in a modern tour bus, double accomodation and entry into all parks and museums. Registration for the tour may be made by sending your name, address and a \$30.00 deposit to Mr. George Conroy (Chapter Treasurer, 762 Elm St., St. Thomas, Ontario N5R 1L4) before June 30th, 1979.

For further information call Mr. Charles Garrad (416) 223-2752 in Toronto.

OR

Mr. Bill Fox (519) 433-8401 or
 (519) 673-0966 in London.

There are a limited number of seats, so register soon to avoid disappointment.

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ONTARIO ARCHAEOLOGY FLOURISHES IN WEST GERMANY

Astrid Maak, an O.A.S. member recently relocated in Baden/Wuertbg, West Germany, is conducting a course in archaeology for the Canadian Armed Forces resident there.

Included in the six week course with "Archaeology in Turkey", "Ruins in Pompeii", "Archaeology in Greece" is "Archaeology in Ontario".

"Since all my students are returning to Canada, and Ontario, I'm hoping that most of them will join the O.A.S." says Astrid.

* * * * *

The OAS T-Shirt

Made in Canada, of 50% polyester and 50% cotton, this quality T-shirt is pure white with elasticized neckband and cuffs in navy. The OAS crest is also in navy. To order yours, send \$6.00 (plus 25¢ postage) plus your name and address and choice of size (S, M or L) to: Ontario Archaeological Society, P.O. Box 241, Station P, Toronto M5S 2S8. Please allow 3 weeks for delivery.

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THE J. NORMAN EMERSON MEDAL - AN AWARD FOR OUTSTANDING SERVICE TO ONTARIO
ARCHAEOLOGY

As discussed at our last general meeting, it is our belief that the Society should recognize Dr. Emerson's contribution to non-professional involvement in Ontario archaeology. The University of Toronto memorial fund will generate a student award, recognizing Dr. Emerson's long and productive teaching career; and on a complimentary note, the Society proposes to strike a silver medal which would be presented from time to time to those non-professional archaeologists who have significantly advanced our understanding of Ontario's past.

The initial financial outlay for the medal will be somewhere between \$600.00 and \$700.00 for the engraving of the dies. Tim Kenyon has kindly donated his considerable artistic skills for its design, and once the dies are produced, each medal will cost only approximately \$40.00 to strike. The recipient's name and the award date would be engraved on the plain rim of this medal.

We require member donations to cover the above costs and are requesting that you provide whatever amount you can towards this fund. The London Chapter has already voted a generous amount, but we are counting on the individual membership to make this award a reality. Donations should be sent to the attention of our treasurer at the Society's Toronto postal address. Receipts for tax purposes will be provided upon request.

* * * * *

O.A.S. SYMPOSIUM 1979: CALL FOR PAPERS

The sixth annual symposium will be held on Saturday, October 26th. The theme is "Experimental Archaeology: the Ontario Perspective".

The papers should give a "state of the art" summary as well as reporting original work. Topics could include:

1. Living in the past.
2. Making and using artifacts.
3. Fate of artifacts in the field.

The papers will be 20 minutes in length and should include slides.

Titles should be submitted by June 1st to the Symposium Convenor, O.A.S., P.O. Box 241, Postal Station P, Toronto, Ontario M5S 2S8.

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LITHIC TOOLS FROM THE SIDEY-MACKAY SITE (BbHa-6)

WILLIAM A. FOX

The Sidey-Mackay site is a late proto-historic
(c. 1580 A.D.)

Tionnontateronon (Petun) village located near Creemore (see Figure 1). Excavations undertaken by Mr. Charles Garrd in 1977 produced the majority of the assemblage described in this brief report; however, the projectile point data has been augmented through specimens held by the National Museum of Canada and the Royal Ontario Museum. As many are aware, W.J. Wintemberg excavated on the site in 1926, and those wishing to obtain information on the entire artifact assemblage are directed to his 1946 article in *American Antiquity* (Volume 11, Number 3) and Charles Garrad's 1978 report concerning his excavations.

The author became aware of the Sidey-Mackay lithic assemblage during a nine year project which has involved the recording of consistent metric and qualitative projectile point and scraper attributes for Late Woodland collections from Southern Ontario. These attributes appear to display significant temporal and spatial trends which promise valuable information concerning social interaction and the culture history of both Iroquoian and contemporary Algonkian-speaking groups. While the author had intended to study only projectile points, Mr. Garrad managed to slip in all the chipped stone formal tools recovered from his 1977 excavation of 46 five foot units across the village area (Garrad, 1978).

TRIANGULAR PROJECTILE POINTS

Maximum length measures were possible for 21 of the 27 specimens described. The mean maximum length is 29.5 mm. (s.d. 5.0 mm), while the mean breadth/length ratio (shape index) is .55 (s.d. .10); placing the Sidey-Mackay collection close to the geographically adjacent Melville (N-19) and more distant Haney-Cook site (N-36) samples, but separate from the MacMurchy (N-20), McAllister-Arbuthnot (N-10), McEwen (N-9), Campbell-Kelly (N-42), Plater-Fleming (N-7), Plater-Martin (N-17) and (to a lesser extent) Glebe (N-9) site cluster (see Figure 2). Site means are represented by numbered squares in the Figure 2 scattergram, with those dating pre-1260 A.D. open and those dating post-1620 A.D. filled.

The modal lateral edge configuration (N-27) is convex/convex (see table 1), the modal basal edge configuration (N-27) is concave (see Table 2), while the frequency of oblique bases is 12/27 or 44% (Fox, 1977). Figure 1 describes raw material percentages (by occurrence) for the Sidey-Mackay debitage (D) and projectile point (P) samples, indicating that Collingwood chert is the most popular material for projectile points, followed closely by Onondaga chert (see also Table 3).

OTHER ARTIFACTS

These include eight end scrapers, one thumbnail scraper, four biface tips, two biface midsections, one biface base, a possible biface reject, eleven

FIGURE 1

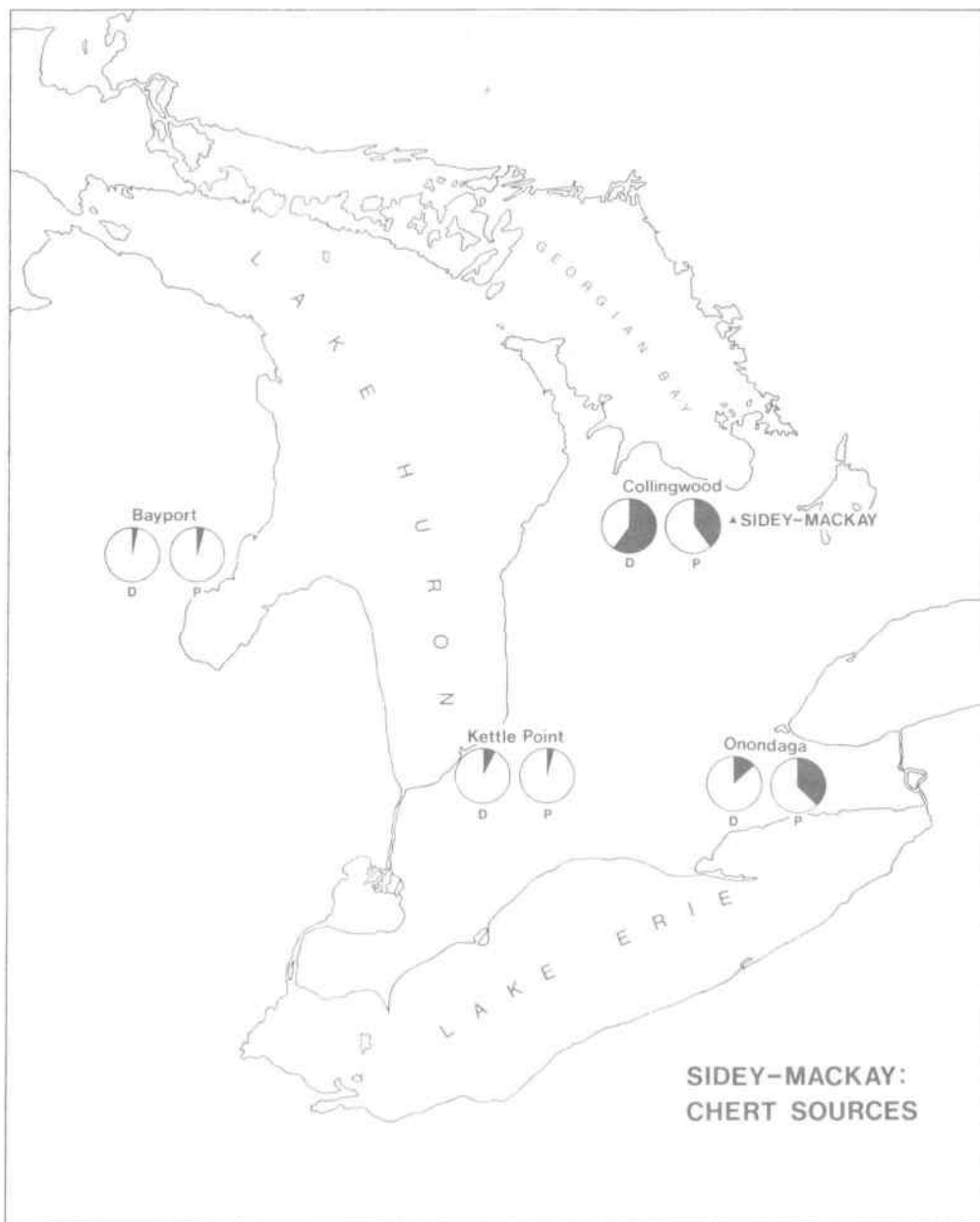


TABLE 1: PROJECTILE POINT LATERAL EDGE CONFIGURATION (N-27)

Convex/Convex	Convex/Concave	Concave/Concave	Straight/Convex	Straight/Concave	Straight/Straight
22 (81%)	-	1 (4%)	4 (15%)	-	-

TABLE 2: PROJECTILE POINT BASAL CONFIGURATION (N-27)

Concave	Convex	Straight	Concave/Convex	Irregular
15 (56%)	8 (30%)	3 (11%)	1 (4%)	-

TABLE 3: PROJECTILE POINT RAW MATERIAL TYPE (N-27)

Kettle Point Chert	Bayport Chert	Collingwood Chert	Onondaga Chert	Unidentified
1 (4%)	1 (4%)	11 (41%)	10 (37%)	4 (15%)

Bipolar cores and fragments, four hundred and thirty-two additional pieces of debitage, eighteen sandstone beads and bead preforms, fifteen sandstone discs and disc preforms, a mica shist adze fragment and a limestone pebble pendant.

Five of the eight end scrapers are of Onondaga chert, with the remaining three being local Collingwood chert. Their mean length, breadth, thickness and edge angle is 29 mm (N-3), 22 mm (N-5), 8 mm (N-5) and 73° (N-8), respectively. Two are double ended and three Onondaga chert specimens have been subjected to bipolar battering, apparently following their rejection as scrapers. The entire ventral surface could be observed on five scrapers; and of these, four had no retouch, while one had partial retouch.

The thumbnail scraper is manufactured from Collingwood chert and measures 16 mm in length, 15 mm in breadth and 3 mm in thickness.

Seven biface fragments were recovered; three of Collingwood, three of Onondaga and one of an unidentified Silurian (?) chert. One complete Onondaga chert biface appears to have been rejected in the process of manufacture.

Eleven bipolar cores and fragments have been included within the debitage raw material totals (see Figure 1). Of these, four Collingwood chert specimens are opposed ridge in form, one Collingwood chert is ridge/area, Kettle Point chert has been used to produce one point/ridge and one point/point form, while the remaining four fragments are of an unidentified configuration.

Two pieces of quartzite and limestone flake constitute the non-chert debitage sample. Fifty-eight (13%) of the 443 chert debitage specimens could not be identified as to source, often due to buring. Eight (2%) are simply identified as to a Silurian provenience, while 4 (1%) have tentatively being labelled as Ordovician Huronian chert. The remaining debitage has been identified as Collingwood chert (N-266/60%), Onondaga chert (N-59/13%), Kettle Point chert (N-33/7%) and Bayport chert (N-14/3%).

Sandstone, probably derived from the local Silurian Whirlpool Fm, was utilized in the production of discs and beads. The mean diameter and thickness of the refined discs (N-11) is 18.4 mm (s.d. 5.3 mm) and 4.4 mm (s.d. 1.6 mm), respectively. Those measures for the discoidal beads (N-12) are 16.0 mm (s.d. 3.3 mm) and 4.3 mm (s.d. 1.2 mm), while the mean diameter of the biconical drilled holes is 3.2 mm (s.d. 1.1 mm).

The final artifacts are a mica shist adze butt which was flaked into shape and then ground, and an ovate limestone pebble pendant measuring 31 mm by 20 mm by 5 mm.

DISCUSSION

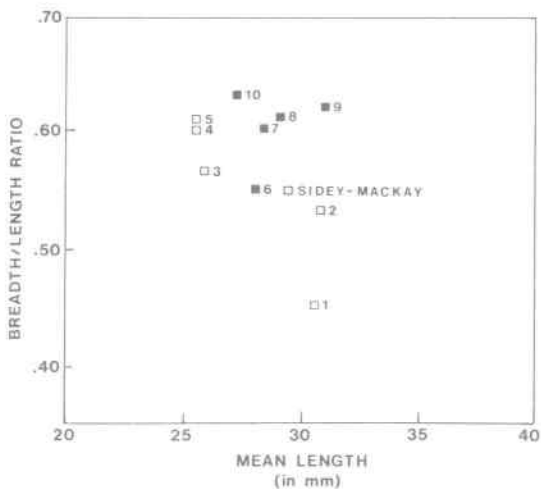
Sidey-Mackay projectile point form and size is comparable to the Melville site sample (Fox, 1979); however, chert preferences are very different. Only 8% of the Sidey-Mackay specimens are manufactured from southern Lake Huron basin cherts, while 10 (38%) are of Onondaga chert from the Atti-wandaron area to the south. The debitage sample confirms the minor use of Huron basin cherts and reinforces their preference for local Collingwood

Figure 2: Legend

1. Beeton (7)
2. Melville (22)
3. Glebe (9)
4. McAllister-Arbuthnot (10)
5. MacMurchy (20)
6. Haney-Cook (36)
7. Plater-Fleming (7)
8. Campbell-Kelly (42)
9. McEwen (9)
10. Plater-Martin (17)

FIGURE 2

TIONNONTATERONON TRIANGULAR PROJECTILE POINTS



chert (see Figure 1). Unlike the later Melville peoples, the chert knappers of the Sidey-Mackay village depended upon Fossil Hill Formation chert which could be obtained as pebbles and cobbles in local glacial deposits. This Collingwood chert was supplemented by Onondaga Formation chert from the south.

Similar to the Melville assemblage, the cores and certain of the debitage reflect the Tionnontateronon occasional utilization of a bipolar flake production technique on otherwise exhausted chert fragments. The predominately non-retouched ventral faces of the end scrapers are in keeping with samples from contemporary Attiwandaron sites (Fox, 1977a). This may be more than coincidence when it is remembered that five of the eight specimens are of Onondaga chert.

The sandstone beads are similar to discoidal specimens on earlier St. Lawrence Iroquois and certain proto-historic Huron sites; however, this lithic form appears to be largely supplanted among the Tionnontateronon by tubular slitstone/slate beads by c. 1620 A.D.. On the other hand, the sandstone disc production evidenced in the Sidey-Mackay assemblage expands in the historic period when specimens became larger in size and are exported to the Huron.

CONCLUSIONS

The evidence considered above indicates that the Sidey-Mackay people had settled into the Blue Mountain area and were familiar with the local lithic resources, while maintaining strong ties with Attiwandaron (?) groups to the south. The discoidal sandstone bead industry suggests contacts with eastern Huron peoples. Some interaction with a group (Outaoucs?) frequenting the southern Lake Huron basin is suggested by the minor occurrence of Kettle Point and Bayport cherts.

If the Sidey-Mackay population moved across the Creemore valley to establish the Melville village at the beginning of the seventeenth century, then significant adjustments occurred in their chert acquisition patterns, perhaps reflecting closer ties with the cheveux relevé.

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PAINTED MIDDLE WOODLAND POTTERY FROM WHITEFISH ISLAND, SAULT STE. MARIE

By Nick Adams

Ontario Ministry of Culture & Recreation

During the analysis of the Middle Woodland pottery from Whitefish Island, some interesting information came to light. Close examination of several hundred Middle Woodland rims has revealed a number of red painted sherds.

The red paint is an ochre pigment similar to that used at rock art sites. The sherds show deliberate painting and should not be confused with sherds accidentally stained by contact with ochre burials. Nodules of ochre have been found on Whitefish Island and many of the other sites producing painted pottery. These might have been used in the preparation of paint.

Fourteen vessels, or approximately 3% of those so far recovered have some red paint on their surface. In all but one case, the paint has been applied to the lip alone. Traces of paint on the interior or exterior surfaces of the sherds are unknown. A single exception has a faint spot of paint on its exterior.

Painted pottery seems something of a rare occurrence in Ontario. Sherds with a single vertical stripe of black paint or ox-blood colour finger-drawn lines have been recovered from Middle Ontario Iroquois, Glen Meyer sites in south-western Ontario (Wright 1966: 31 and 172, Plate VIII; D. Arthurs, personal communication).

More recently some red painted Point Peninsula sherds have been excavated from the Georgian Bay area of Lake Huron (O'Brien 1976: 66). There are some red painted body sherds from the Middle Woodland component of the LaCloche site, on the north shore of Lake Huron (Conway: forthcoming).

Red ochre painted sherds are found with some regularity on Laurel tradition sites along the north shore of Lake Superior and further to the west in the Rainy River district.

The Pays Plat site (DfIv-2), the Little Pic site (Delp-2), the McLaren site (DcJi-2) and the Rushing River site (DjKn-5) all produced sherds with a red ochre wash on their exterior surfaces (J.V. Wright 1967: G. Rajnovich, personal communication).

Painted sherds from the Long Sault site (DdIn-1) on the Rainy River have paint only on their interior surfaces. Some sherds have a red ochre wash which has been subsequently overlain by carbon encrustations (D. Arthurs, personal communication). This treatment is contrary to the norm for sites in northwestern Ontario where the lips and exteriors are predominantly painted. Red painted Terminal Woodland sherds have also been noticed from Long Sault site.

The Plum Point site, a Middle Woodland site on the Lower Rideau River, to the south of Ottawa, also produced a few red painted sherds (Wright 1967: 113).

The rareness of painted pottery may be more apparent than real. Those from Whitefish Island all have patchy and discontinuous areas of paint and it would be very easy to overlook them. Some only have flecks adhering to the small depressions of the lip surface, all other traces having been eroded away.

All but two of the painted vessels from Whitefish Island have banked stamp decoration on their exterior surfaces. The exceptions show pseudo scallop shell impressions. Two of the vessels have interior decoration, consisting of a single bank of oblique plain tool impressions. These proportions are similar to those found among the unpainted vessels. All the painted vessels have flattened lips but then so do approximately 95% of the unpainted vessels from the site. No clearly distinctive attributes separate the painted from the unpainted vessels. No stylistic trends have been observed whereby one could speculate whether an abraded rim had once been painted.

Apart from the few painted sherds from the Middle Ontario Iroquois sites, it seems as though pottery painting is a Middle Woodland phenomenon in Ontario. Painted Middle Woodland vessels are probably more common than the published literature would suggest, but the problems of abrasion and weathering reduce their preservation. Many may well have gone unnoticed in previous analyses. Obviously it is a trait of Middle Woodland ceramic technology to be considered.

It is tempting to suggest some particular function for painted pots. This may well be true although those from Whitefish Island display clear evidence of thorough use. All but one have carbon encrustations on their inner surfaces.

The illustrations in the article on page 28 show some of the rims from the Whitefish Island site that have painted lips. It must be reiterated that in every other way they are 'normal' Middle Woodland sherds for the Sault Ste. Marie area. In no way do they represent specific forms or decorative styles that are always painted.

Any other information anyone has concerning this aspect of ceramic studies would be most welcome.

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THE CONCEPT OF MINIMUM NUMBERS AS APPLIED TO PREHISTORIC POPULATIONS:

A HURON CASE STUDY

By Peter G. Ramsden
McMaster University
March 1979

Most archaeologists are familiar with the concept of minimum numbers of individuals as used by faunal analysts - the number of faunal elements on a site is reduced to the minimum number of individual animals of each species which could have produced the faunal elements.

In view of the importance of estimating prehistoric populations, and the numerous difficulties attendant upon attempts to do so, it was felt that the concept of minimum numbers might profitably be applied to this problem. Accordingly, I have tried to use numbers of pottery rim sherds as a means of estimating the minimum number of Hurons alive at any given time between A.D. 1450 and 1650. The method and conclusions are outlined below.

1. Number of pots manufactured between 1450 and 1650:

An estimate of the total number of Huron pots made during the period in question can be derived from the extensive Draper Site excavations. Here, from approximately 5 acres of the site, some 14,000 rim sherds have been recovered. If we can assume that 5 acres is an approximate average for the size of Huron sites, then we should expect that Huron sites will, on the average, produce 14,000 rim sherds each. Now, a rough guess of the total number of Huron sites occupied during the period 1450-1650 is approximately 500. These sites should, altogether, produce $500 \times 14,000$, or roughly 7,000,000 rim sherds. If we allow an average of 10 rim sherds per vessel, then we can say that 700,000 ceramic vessels (pots) were manufactured between 1450 and 1650.

2. Average number of pots per woman:

Let us assume that the time required in exclusive activity in order to manufacture one pot is one working day. Therefore, the number of woman/days needed to make all Huron pots is 700,000. If the pot-productive life span of the average Huron woman is from about 15 years old to roughly 55 years old, this represents a possible 14,600 working days. We should, however reduce this, say by 40%, to allow for cooking, child-bearing, statutory holidays, public torturing, etc. This means that the average Huron woman has in her lifetime 8,760 pot-making days. At one pot per pot-making day, the average woman can produce 8,760 pots in her lifetime.

3. Minimum Population Estimates:

Since an average woman can produce 8,760 pots in her lifetime, the minimum number of women required to make 700,000 pots is 79.9 , or roughly, 80.

Since Huron pots were made over a period of 200 years, 1450-1650, and given that one woman makes pots for a 40 year period, there was a minimum of 5 generations of potresses over which the above 80 women were spread. Thus, the minimum number of potmakers at any one time is $80/5$, or 16.

If we assume one adult female (woman) per family, and an average family size of 5, then the minimum number of Hurons at any one time is 16×5 , or 80.

CONCLUSION

In this brief paper, I hope I have demonstrated the value of a scientific approach to population estimates, and in particular the utility of the concept of minimum numbers. Needless to say, actual population of Hurons was probably much higher than 80, perhaps 200. We can, however, be sure that there were no fewer than 80 at any time. What remains is to reconcile this scientifically deduced estimate with the untrained observations of people like Champlain, who recorded outlandish estimates of Huron population levels up into the tens of thousands. This new approach may revolutionise our whole conception of prehistory, and the impact of European contact.

* * * * *

Summer Job Wanted

Physical Anthropology Ph.D. candidate seeks summer employment. Qualified to analyze faunal and human skeletal remains. Four years teaching experience. Prefer to work in Toronto. For more information, please reply to:

Ph.D. Candidate
c/o Arch Notes
29 Tournament Drive
Willowdale, Ont. M2P 1K1

SAA Committee on the Status of Women in Archaeology

Leslie A. Wildesen, Chairman of this Committee, is trying to compile an up-to-date list of women archaeologists who are not listed in the AAA Guide to Departments. The Canadian organizer is Susan White of Winnipeg.

To support this endeavour, they are asking all women archaeologists to contact them, and to encourage other women in archaeology to contact them, so that this list can be completed. They are particularly interested in students.

They need the following information: name and address, phone number, highest degree attained (plus the date), position title, and current status as a student if applicable. Send the information to:

Susan White
25B - 265 River Avenue
Winnipeg, Manitoba R3L 0B6

A PERSONAL TRIBUTE TO THE ORIGINATOR OF THE

"BORDEN SCHEME"

by Chas. Garrad

Elsewhere in this issue of ARCH NOTES there is a notice of the death of Dr. Charles (Carl) Borden in December 1978. It was my privilege to meet Dr. Borden several times and it would seem an appropriate time to record some of the events which led towards the more recent widespread use in Ontario of Dr. Borden's "A Uniform Site Designation Scheme Applied to Canada", published in ANTHROPOLOGY IN BRITISH COLUMBIA in 1952.

Every researcher, working with a number of sites scattered throughout an area, is confronted with the need to so designate sites that all confusion is eliminated, and at the same time possibly incorporate to some degree the geographic location of the site. In the U.S., a designation scheme was developed using letter codes for States and Counties. In Canada, the Provinces are not all divided into areas corresponding to counties or similar blocks of land in any uniform way, and so instead Dr. Borden proposed to use letters to designate blocks of land that were defined, not by political boundaries, but by latitudinal and longitudinal coordinates. Published in 1952, the Scheme did not result in immediate adoption in Ontario.

In 1967, searching for the best method to designate sites in the historic Petun area of Ontario, I took an interest in the various possible methods, and found Dr. Borden's Scheme the most suitable. That it was not in widespread use seemed to me to be due to its appearance in a B.C. publication long since out of print. ONTARIO ARCHAEOLOGY, or a similar Ontario publication, could render a service to Ontario archaeologists, I thought, by republishing the original paper by Dr. Borden.

The practical experience of applying the Scheme to the sites I was recording opened several ideas, particularly the need for a central registry, a subject I thought of proposing as an editorial footnote in the proposed reprint of Dr. Borden's paper. A fortunate business trip to B.C. allowed me to discuss personally with Dr. Borden the matter of the proposed Ontario reprint, the suggested footnote, and the other ideas which had developed during my application of the Scheme. Although I arrived in Vancouver late on a Friday night and called Dr. Borden at his home at a late hour, he most graciously agreed to go to the University (U.B.C.) the following day. We spent a Saturday afternoon touring the anthropological collections and discussing the Scheme. At once I learned that Dr. Borden possessed neither the copyright, nor the original maps, both necessary to the proposed reprint, these being held by the B.C. Provincial Museum in Victoria, the publisher of ANTHROPOLOGY IN BRITISH COLUMBIA. Nevertheless we discussed the practical and theoretical aspects of the Scheme, and Northern American archaeological progress in general. Dr. Borden gave freely of his time and enthusiasm to the stranger from remote eastern Canada, and I doubt if a visiting University president could have been more cordially received. I left Dr. Borden on that occasion filled with a gratitude that has never left me.

The next Monday morning, in the office of the B.C. Anthropologist, I learned that it would not be possible for us in Ontario to exactly reprint Dr. Borden's article. The original maps were missing, and some problem might exist because of the Crown copyright. The alternative left to us was a separate article about the Borden Scheme, which I began to compile on my return to Ontario, using a simplified map and incorporating the proposed footnote as a "Suggestion". This was to the effect that the appropriate Provincial Museum or similar authority open a Register of Site Numbers. I was gratified indeed when Dr. Borden, on reviewing the draft MSS, wrote saying ... "You have suggested an excellent solution ... We ... in British Columbia ... are planning an arrangement somewhat along the lines of your proposal", (letter, Borden to Garrad, June 14th, 1967).

The resulting article "The Borden Site Designation Scheme Applied to Ontario" was published in *ONTARIO ARCHAEOLOGY* No. 10, June 1967, with Dr. Borden's kind assistance and permission, under the name of the present writer, which had not been the original intention. To this, Dr. Borden's comment was, "It is gratifying to know that the Uniform Site Designation Scheme for Canada which I proposed 15 years ago has found general acceptance and that its adoption is continuing to spread".

The Borden Scheme is now 28 years old. The Register of Site Numbers suggested 13 years ago came into being in Ontario in due course, and both the National and Provincial Site Inventories, administered by the Archaeological Survey of Canada and the Ontario Ministry of Culture and Recreation respectively, utilise the Borden Number as the prime means of site designation and identification.

Dr. Borden's contributions to B.C. archaeology have been lauded elsewhere. His contribution to the national site designation scheme will be his eternal monument. I personally will remember that brief time with him in Vancouver in 1967 when I realised I was in the presence of a quite exceptional human being.

* * * * *

McMASTER SYMPOSIUM

The McMaster Anthropology Society's annual Symposium was held on February 25th in the Kenneth Taylor Hall, McMaster University. Entitled "Ethno-history and Archaeology", the morning session was chaired by Dr. Peter Ramsden and the afternoon by Patricia Sutherland.

Papers presented included: "Fort Severn or Nieu Savanne: A Preliminary Statement of Ethnic Identification of Fur Trading Posts" by David Christianson; "The Archaeology of the Beothuk" by Prof. Helen Devereux; "The Jordon Pottery Excavation and Study Project" by Rita Michael; "Effigy Pipes" by Dr. William Noble; "An Athobaskan Hypothesis" by Dr. Roscoe Wilmeth; "Feast, Famine or Fast Foods" by Morris Brizinski; "Death and Geometry" by Dr. Walter Kenyon; and "Norsemen and Eskimo in the Eastern Arctic" by Dr. Robert McGhee.

* * * * *

BOOK REVIEW

by Diana Gordon

SEED TO CIVILIZATION

Charles B. Heiser, Jr.

W. H. Freeman and Co., 1973

Pages: 243

In this interesting and readable book, Heiser, a botanist at Indiana University, traces the story of man's food from earliest archaeological evidence to present time. He emphasizes basic food plants, as they provide all the carbohydrates and three-fourths of the protein in man's diet. One chapter is devoted to domesticated animals, whose meat is only available to the wealthy. Plants of the same botanical family, such as the grasses and the legumes are considered together. Among the other foods discussed, are the starchy staples and the coconut.

Domestication and selective breeding by man has altered the evolution of certain plants and animals. For this reason, the author calls his approach "ethnobiology", that is, plants and animals in relation to man. The history of each food staple is examined: where it occurs in the archaeological record, how it was used by earlier people and how it evolved. The latest developments in breeding of each particular plant and the implication in terms of nutrition and yield for modern man, are also analyzed.

With man as the agent, plants and animals have been transported into new environments in many parts of the world. Cultural taboos often created and still create, resistance to foreign foods. In reference to maize from the New World, a famous English herbalist wrote:

Wee have as yet not certaine prooffe or experience concerning the vertues of this kinde of corne; although the barbarous Indians, which know no better, are constrained to make a vertue of necessitie, and think it a good food ...

Unfortunately, the undernourished react the strongest against introduced foods, making many food programmes futile. In the struggle against world hunger, Heiser believes that only a concerted international effort can make any progress. Overpopulation, technology, politics and economics all act to keep more than half the world's people undernourished and underfed.

Written for the general reader, the book is lucid, topical and, at times, humorous. Rarely do we consider where or how our food is grown. Thus the information given is often surprising. There are good photographs and drawings of the various foods mentioned. As some of these are exotics, the illustrations are quite helpful. Unfortunately, the specific archaeological sites are not named. However, the back of the book contains both general references and those used for each chapter. In a chapter intitled "Seeds, Sex and Sacrifice" the author speculates on why and how plants were first domesticated. Various curious proposals dealing with the potential significance of religion in the discovery of plant cultivation are offered. One wonders what merit such fanciful speculation has, for it is quite possible

that the answer is lost in time. In a book that is essentially factual, this chapter seems misplaced. Perhaps it would have been better if the author simply mentioned this controversial topic, rather than presenting an involved discussion.

* * * * *

... NEW BOOKS ...

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A Canine Effigy Pipe from Northern Ontario

by Thor Conway

Regional Archaeologist

Ontario Ministry of Culture and Recreation

Sault Ste. Marie, Ontario

Human effigy pipes are well known from proto-historic and contact period sites in southern Ontario. However, few have been found in the upper Great Lakes.

Recently a canine effigy pipe bowl was collected from the eroding shoreline of the Black Thistle site near Sault Ste. Marie, Ontario. This site is situated at a sheltered cove on the upper St. Mary's River just ten kilometers from the famous Whitefish rapids. Regular surface and underwater collections are made at the Black Thistle site as a part of the Ministry of Culture and Recreation's site monitoring programme, since remedial work is not feasible. The effigy pipe was found in two pieces during the 1978 field season.

Canine Effigy Pipe Description

This canine effigy has a moderately long muzzle with two shallow dots marking the nostrils. A deep incision marks its mouth while simple punctates serve as eyes (Figure 1). A hollow beneath the lower jaw resembles the throat configuration of dogs and wolves. The canine effigy bowl faced the smoker when intact.

The pipe is typically Iroquoian with sand temper. Its surface was carefully polished after firing. The stem is square with short, oblique marks on each corner of the vertical section. This corner decoration changes into small, shallow punctates near the mouthpiece.

A curious thong impression or erosion groove occurs on the thickened rear portion of the bowl's lip. Secondary decoration is evident in the form of horizontal incisions on each side of the upper bowl.

Comparisons

Canine effigy pipes are the product of the Huron or other southern Ontario cultural groups. These pipes appear in the proto-historic and early historic periods. Iroquoian effigy pipe forms are commonly found in Terminal Woodland sites. In general there is an easily distinguished dichotomy between clay pipes on habitation sites in the Lake Huron and Lake Superior regions. There are many examples of ring bowl, trumpet and other Iroquoian pipes. These items contrast strongly with Ojibwa clay pipes which tend to be less formal in regards to types, and certainly less well executed.

Why are effigy pipes absent when other Iroquoian pipes are represented in Northern Ontario? The answer is open to speculation. Perhaps effigy pipes were not traded, unlike their counterparts. The scarcity of effigy pipes is not related to a sampling error, since numerous late prehistoric, proto-historic and early historic sites have been excavated in the upper Great Lakes.

The answer to the question must await further work into the relationship between the Huron, Petun, Ottawa and Ojibwa during the fifteenth to seventeenth centuries.

The Black Thistle site is a multi-component site with continuous occupation from Laurel tradition times to the present. Finding a canine effigy pipe at the site may represent a chance event in prehistory or it may yield implications as yet not understood.

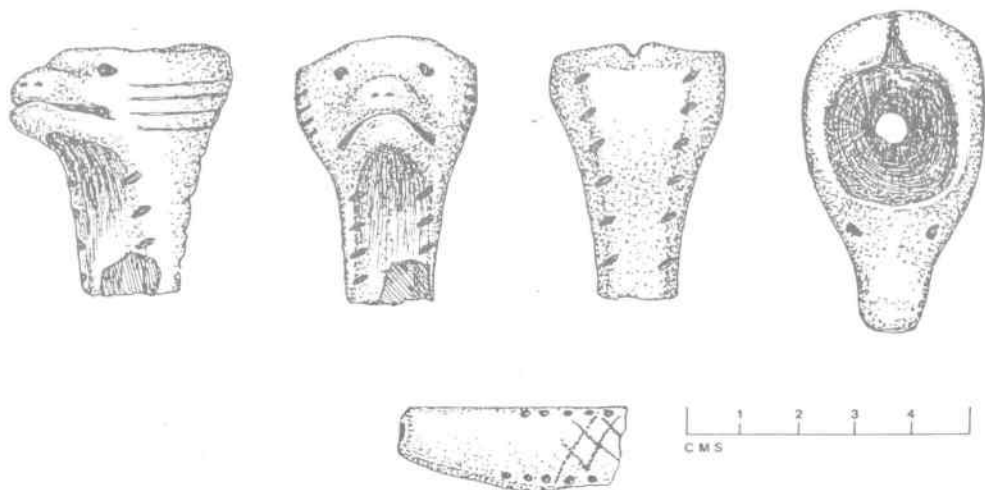


Figure 1 An Iroquoian effigy pipe from the Black Thistle site near Sault Ste. Marie, Ontario.

* * * * *

O.A.S. TRIP TO MEXICO

The Executive has approved a proposal for a group visit to Mexico from Sunday November 25th to Sunday December 2nd, 1979. It is a regular Sun-flight "Mayan Mysteries" tour, and the idea is that members (and friends) who wish to travel together may do so on this date, and any number, large or small, can be accommodated.

Enclosed with this issue of Arch Notes is a mail-in slip which should be completed and returned to: O.A.S. Administrator, 103 Anndale Drive, Willowdale, Ontario M2N 2X3 (416) 223-2752.

At the May General Meeting, Mr. Gary Kent Smith, of the Travel Connection travel bureau, will show a short film provided by the Mexican Tourist office and will be available to answer questions.

If members are interested, and prices and politics permit, a trip to Egypt is contemplated for 1980.

* * * * *

UPDATE FROM DR. NOBLE

Wm. C. Noble - Chairman
Ontario Heritage Foundation
Archaeological Committee

It has been some time since I last communicated with the Ontario archaeological public through these pages, and I must confess that future communiques will probably be sporadic. In the past year, however, there have been notable developments that warrant mention here, not only in the interests of up-dating, but because precedents have been set.

At the outset, I wish to announce the changes that have taken place in the composition of the archaeological committee of the Ontario Heritage Foundation. Professor Romas Vastokas, of Trent University, resigned as of May, 1978 in order to pursue a political career. Romas was one of the two members on the Committee (K. Dawson is the second) who embodied the archaeological continuity between the new O.H.F. Board of 1975 and the predecessor Archaeological and Historic Sites Board of Ontario.

Under the conditions of the Ontario Heritage Act (1974: Part II, Article 5), membership appointments to the Ontario Heritage Foundation are term limited. This ensures a revolving, changing membership, and terms of office are staggered between 1, 2 or 3-year long periods. Each member may hold two consecutive terms, after which he must sit out at least one year before being eligible for reappointment. The Lieutenant Governor in Council appoints all members to the Ontario Heritage Foundation; appointed members, therefore, are not only members of the full O.H.F. Board, but also serve on one or more of the Foundation's four sub-committees.

As of May 1978, two new appointments have been made to the O.H.F. archaeological committee. I am pleased to announce the appointments of Mr. Ross Charles, newspaper publisher in Tottenham, south-central Ontario, as well as Professor F. Bruce Drewitt of the University of Toronto. Both individuals bring a mature and seasoned expertise to the Foundation, and the archaeological committee in particular.

Currently, two archaeological committee members' terms will expire at the end of March 1979. They are Professor Helen Devereux of Laurentian University, Sudbury, and Mr. Frederick Wade of Toronto. Helen has given unstintingly of her time to the O.H.F., and represents one of the original 1975 archaeological committee members within the restructured Foundation. Mr. Fred Wade, who has served on many directorships and was founding Chairman of the O.H.F. in 1968, has served on the archaeological committee since May 1978. To both of these individuals, and Dr. Vastokas, I extend warmest appreciation for their many aids and contributions to the archaeological committee and the O.H.F. during the past years of initial growth. Ontario archaeology, as a whole, has benefited significantly through their respective interests, concerns, knowledge and specialized judgment.

For the next year and a half, the O.H.F. archaeological committee will comprise the following core individuals: Dr. Wm. C. Noble (Chairman), Professor Kenneth C. Dawson, Mr. Clyde C. Kennedy, Dr. F. Bruce Drewitt, and Mr. Ross Charles. Additional members may be drawn from the existing

Board as needed.

Announcement can also be made that the first David Boyle O.H.F. archaeological scholarship has been awarded as of late 1977. Historian Dr. Gerald Killan of King's College, London, Ontario, has accepted the scholarship to write a biography of David Boyle. With the museum movement on Ontario during the 1880s and 1890s as one of his specialties, Dr. Killan brings a special perspective to documenting and understanding this energetic pioneer Canadian archaeologist. The biography, expected to be completed by late 1979, represents a fitting way to initiate this prestigious Ontario Heritage Foundation award.

Archaeology and the law has certainly been a major development in Canadian archaeology; indeed, I believe this represents the single most important trend in Canadian archaeology during the 1970s, particularly in the Provinces. Activating their constitutional powers as designated by the British North America Act, 1867, most Provinces have created legislation to conserve, protect and preserve heritage resources, including archaeology. In Ontario, the new legislation (1974) has seen the creation of a new Ministry of Culture and Recreation, archaeological licencing measures, and expansion of the Ontario Heritage Foundation. To date, direct legal involvement for those working on Ontario archaeology has been confined largely to matters concerning licencing, unmarked burials, and distinguishing the spheres of Federal-Provincial intentions, jurisdictions and responsibilities.

During the summer of 1978, archaeology and the law took a precedent-setting step in Ontario. Over a period of three days (May 19; July 13-14), the second of two licence appeals came before the Conservation Review Board with Ernest V. Swain, Q.C. and Professor James J. Talman presiding. Similar to the first such Hearing in 1976, the issue involved a field school licence application, and the Conservation Review Board upheld the Minister's decision of refusal based upon advice from the Ontario Heritage Foundation. Unlike the first Hearing, where the Crown did not present their case, the second Hearing saw two Crown witnesses called.

In such Hearings, four major trial procedures are followed: 1) both parties can and usually have legal counsel; 2) all witnesses are placed under oath; 3) examination of Crown witnesses is followed by cross-examination, then the same sequence for the appellant. Rebuttals and summation conclude the courtroom presentations; and 4) legal powers of subpoena obtain. Unlike formal trial situations, there is no court stenographer at such Hearings, and the rules of evidence are more broadly defined. The Kroon case of 1978 illustrates yet another instance of the Province's seriousness in making the new heritage legislation work.

It has long been hoped that the Government of Ontario would establish a fund of money to deal with acute archaeological emergencies as they arise. The responsibility for such measures clearly rests with the present

Ministry of Culture and Recreation, but fiscal cutbacks preclude such innovative measures on their part. To help alleviate expenses arising at times of emergency, two committees of the Ontario Heritage Foundation, the architectural and archaeological, have each established a policy to make available, on Foundation approval, funds of up to \$10,000 for emergency contingencies in their respective fields. This policy was approved on January 24th, 1979.

The subject of designated archaeological properties and the erecting of plaques in Ontario is of major concern to the Ontario Heritage Foundation, for this is the agency currently responsible for recommending such actions and commemorations. To date, four archaeological/anthropological persons and thirty-one actual sites have been given plaques by the Province. Towards promoting more widespread interest, a listing of these persons and properties follows. The reader will note that other themes such as portages and specific expeditions, while also thus marked, are not included here.

Provincial Designations and Plaques

A. Archaeological/Anthropological Individuals

- | | |
|---------------------------------------|--|
| 1. David Black, 1884-1934 | Lobby of Medical Sciences
Building, University of Toronto |
| 2. David Boyle, 1842-1911 | Outside Elora Public Library,
Elora |
| 3. Horatio Emmons Hale, 1817-1896 | St. Paul's Anglican Church,
Clinton |
| 4. Andrew Frederick Hunter, 1863-1940 | Public Library, Barrie. |

This coming spring or early summer, a commemorative plaque will also be unveiled to the memory of William J. Wintenberg. This will be the third archaeological pioneer to be honoured by the Ontario Heritage Foundation since 1975.

B. Archaeological Sites with Plaques

- | | |
|----------------------------------|-------------------|
| 1. Sheguiandah | Manitoulin Island |
| 2. Armstrong Mounds | Rainy River |
| 3. The Serpent Mounds | near Peterborough |
| 4. 'Nodwell' Indian Village Site | Port Elgin |
| 5. 'Roebuck' Indian Village Site | Grenville County |
| 6. 'Lawson' Indian Village Site* | London |
| 7. Cahiagué 1615 | near Warminster |

8. The Huron Fish Weirs	Atherley Narrows, Orillia
9. The 'Forget' Indian Village	Tay Twp., Simcoe County
10. Sainte-Marie 1639-1649	Midland
11. Saint Ignace II	Tay Twp., Simcoe County
12. Agawa Pictographs	Agawa
13. Peterborough Petroglyphs	Stoney Lake
14. The Indian Flint Bed	Ipperwash
15. Willow Fort	Vespra Twp., Simcoe County
16. Cowan's Trading Post	Matchedash Bay
17. Whitefish Lake Post	Naughton, West of Sudbury
18. Temagami Post 1834	Bear Island, Lake Temagami
19. Kenogamissi Post	Kenogamissi Lake, Timmins
20. Moose Factory	Moose Factory, James Bay
21. The Pic Fur Trading Post	Pic River Indian Reserve
22. Fort Kaminitiquia 1717	Thunder Bay
23. Fort William	Thunder Bay
24. Fort Lac LaPluie	Fort Frances
25. Mallorytown Glass Works	Mallorytown
26. The Burlington Glass Works 1874	Hamilton
27. The Newash Indian Village 1842	Owen Sound
28. Bois Blanc Island Fortifications	Essex County
29. Historic Naval and Military Establishments, 1817-1856	Penetanguishene
30. Historic Fort York	Toronto
31. Fort Rouille, 1750-1759	C.N.E. Grounds, Toronto

It is expected that, in late 1979 or early 1980, a plaque will be erected at the Lawson village, Provincially designated in 1970.

Of the above sites, however, only eight have been designated, thereby bringing them under direct Provincial jurisdiction. The eight cases include: Sheguiandah, Roebuck, Lawson, Cahigué, Forget, the Peterborough Petroglyphs, Willow Fort, and the Penetanguishene Naval and Military

Establishments. Other sites such as Sainte-Marie, the Agawa Pictographs, the Serpent Mounds, part of the Armstrong Mounds, and Historic Fort York are protected by other Provincial agencies such as the Parks Branch of the Ministry of Natural Resources, and the Toronto Historical Board. It is obvious, however, that given the rich archaeological resources in Ontario, the Province has not been aggressive in securing and protecting representative archaeological sites. I believe that the Ontario Heritage Foundation can and will pursue this problem.

From the foregoing it will become obvious that plaques are not always erected at designated sites, and that sites with plaques are not necessarily Provincially designated. The legal and financial problems associated with these cases is often complex, particularly if one government agency has to deal with another. Nevertheless, the ideal situation would see designated all sites bearing Provincial plaques, and a priority list of representative Provincial sites drawn up for future designation. In fact, some of this is already under way.

A final consideration that I hope will clarify misunderstandings has to do with the term designation itself. It has come to my attention that some researchers believe that once a site in Ontario has been given a Borden designation number, that the site automatically becomes protected. This is not the case. A Borden designated site simply becomes part of a national inventory; designation in this sense has nothing to do with property rights, jurisdiction, or archaeology and the law. In Ontario, the responsibility to conserve, protect, and preserve archaeological sites clearly falls on the Minister of Culture and Recreation and his Ministry. We sincerely hope that he will take effective measures to uphold this mandate. Legal designation of sites is one route.

P.S. It is encouraging to learn that Mr. Allan Tyyska, Archaeological Policy Planner, Ministry of Culture and Recreation, is now out of hospital and slowly recovering.

* * * * *

O.A.S. REPRESENTED AT SPORTSMAN'S SHOW

The Sportsman's Show was held in Toronto March 16th-24th. The Ontario Ministry of Culture and Recreation displays included an exhibit on Ontario archaeology. The Society was invited to "sit-in" and distribute Society literature and information. More visitors were attracted to a model of a Longhouse build by Jim Shropshire rather than to the artifacts displayed.

Volunteers on behalf of the Society included Howard Savage, Bill Fox, Norma Knowlton, Jim Shropshire, Jim and Marg Brennan and Chas. Garrad.

* * * * *

A MIDDLE WOODLAND COMPONENT ON WHITEFISH ISLAND

AT SAULT STE. MARIE

by Thor Conway and Nick Adams

An extensive Middle Woodland component was located on Whitefish Island in 1977. A sample area has been excavated, but only one boundary of the site is established. Much work remains to be done before the site is fully understood.

Essentially the site is a village midden. Prehistoric refuse from Middle Woodland occupations, spanning a period of time around the second and third centuries A.D., has built up a rich soil layer covering the natural water rolled boulders that form the island.

Despite controlled excavation techniques, no chronological sequence could be detected within the deposit. Middle Woodland sherds were frequently found near the surface, and sherds from a sparse Late Woodland component occurred at the lowest levels. Presumably heavy use of the site destroyed any stratified sequences that originally occurred. Since the village lies on boulders, features and settlement patterns are almost non-existent.

Ceramics form the largest single group of artifacts excavated from Whitefish Island. Approximately 420 individual vessels have been recognized so far, and the total may well be higher. The extensive Middle Woodland component has been identified as the earliest occupation of Whitefish Island. Laurel psuedoscallop shell, Naomikong Point variety psuedo-scallop, Laurel dentate and incised pottery vessels are all present in frequencies comparable to those found at the Naomikong Point site, not far away, in Michigan.

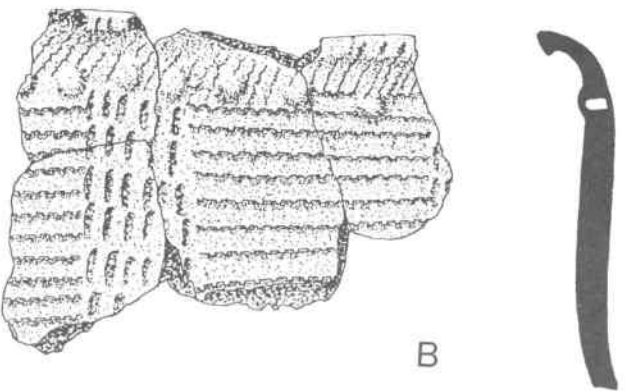
Large percentages of the pottery, however, are banked stamp wares more similar to those found in abundance at the Summer Island site in Lake Michigan. A representative group of Middle Woodland rims are shown in Figure 1.

As other archaeologists have noted, snub nosed end scrapers are particularly common on Middle Woodland sites in the Upper Great Lakes. Whitefish Island is no exception. The predominant raw material used is a grey chert from Michigan, although other cherts more common to northern Ontario are also represented. Flake tools also seem to be in abundance. Net sinkers and large roughly formed slate knives appear on occasion and point to a fishing based economy.

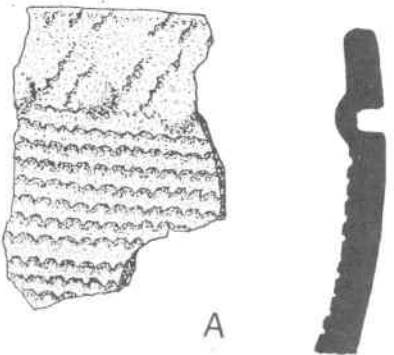
Projectile points are not too common in the Middle Woodland midden. Those that are known show strong affinities to side-notched projectiles from the Naomikong Point site on Lake Superior (Figure 2). This creates a strange situation since the ceramics show more parallels to the Summer Island site on Lake Michigan. The projectiles from Summer Island don't have much in common with the Whitefish Island sample.

Many of the notched projectiles from Whitefish Island are more properly interpreted as hafted knives judging by their wear patterns and shapes.

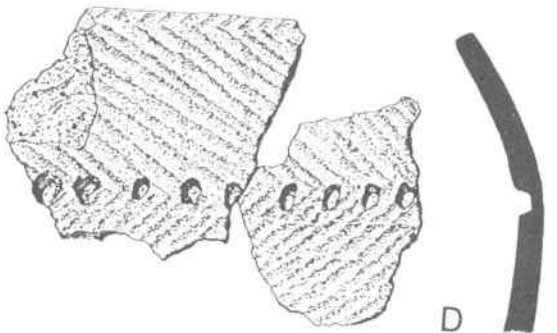
One of the more unusual artifacts recovered from the Middle Woodland Occupation of Whitefish Island is a rectangular or butterfly shaped gorget (Fig.2).



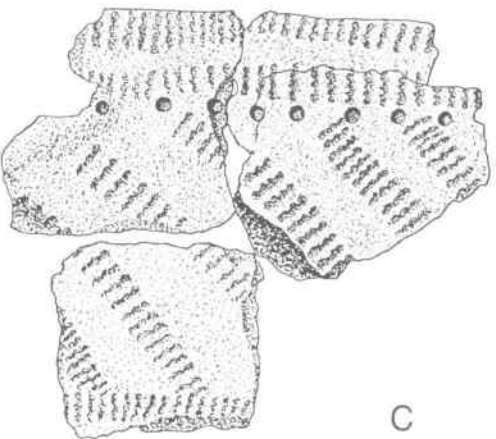
B



A



D



C

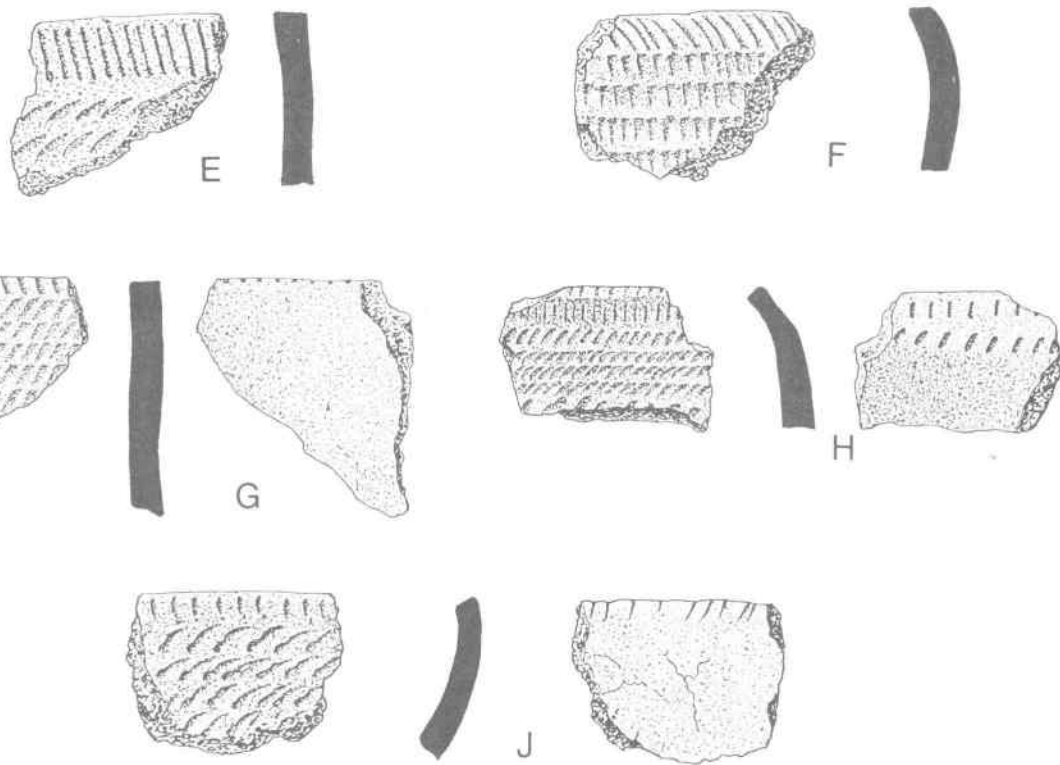


Figure 1

Middle Woodland Pottery from Whitefish Island.
 A-C, Laurel Pseudo Scallop Shell; D, Laurel Pseudo Scallop Shell, Naomikong
 Point Variety; E-J, Banked Stamp (Upper Peninsular) impressed sherds.

Although it is fragmentary, this probable potters' tool shows fine polishing and two drilled holes. The raw material is limestone with siltstone banding.

Native copper tools are found throughout the site. There are awls, a small round copper bead and miscellaneous tools in the assemblage. The presence of native copper scrap and hammered fragments indicates the proximity of Whitefish Island to primary copper sources on Lake Superior. One doesn't usually discover copper waste and production by products at contemporary sites further away along trade networks.

Fortunately bone preservation is good, in contrast to many northern Ontario sites, and a considerable quantity of fish, mammal and bird bone has been recovered. A preliminary study of this material indicates a tremendous variety and diversity of diet. A full study of this faunal collection will add considerably to our knowledge of the Middle Woodland economy.

Bone tools are not frequent in Middle or Late Woodland components on Whitefish Island, despite excellent bone preservation. There are conical ends of two toggle-head harpoons and a damaged bone object from the Middle Woodland midden.

Pigments appear with some frequency and several fragments of red ochre were excavated from the midden. We found an unexpected number of Middle Woodland pots at this site with an ochre paint or wash on their lips.

Full analysis of the Middle Woodland material from Whitefish Island is forthcoming. It will add significantly to our understanding of the Upper Great Lakes during the Middle Woodland (Initial Woodland) era. The geographical location of Whitefish Island places it at the centre of the Upper Great Lakes. The resource wealth and existence of present day Sault Ste. Marie testifies to the suitability of this area as a trading and settlement centre. Obviously the presence of a major fishery in the rapids, beside Whitefish Island would have been the main reason for regular settlement.

One of the more intriguing results of the final site analysis will be a consideration of artifacts ratios. A glance at Table 1 will reveal interesting artifact frequencies. For comparison, one of the Late Woodland components on Whitefish Island has 65 projectiles and 45 scrapers. This hints at a different pattern than the Middle Woodland midden where there are 18 projectiles, including bifacial knives, and 332 scrapers. Someday we should be able to interpret these differences and learn more about the adaptations that served the ancient inhabitants of northern Ontario.

TABLE 1

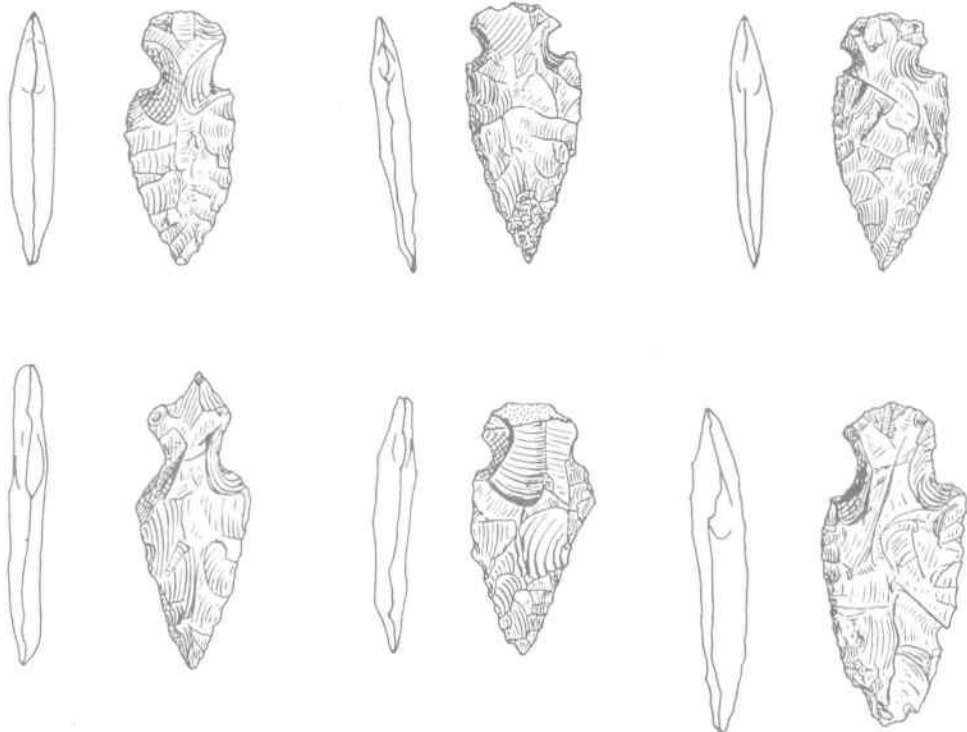
Preliminary Artifact Count for the Whitefish Island Middle Woodland Component

Chert flakes	6057	Ceramic vessels	420
Cores	181	Quartz flakes	161
Projectiles (bifaces)	18	Ochre	10
Scrapers	332	Native copper	19
Utilized flakes	140	Net weights	3
Preforms	5	Gorget	1
		Bone tools	4



Figure 2

Typical Middle Woodland KNIVES, PROJECTILE POINTS AND A GORGET FROM WHITEFISH ISLAND.



* * * * *

THE PAMUNKEY PROJECT PHASE V

A FIELD SCHOOL IN LIVING ARCHAEOLOGY

June 11th - August 17th 1979

Sponsored By

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THE PROJECT

The Pamunkey Project is a multi-purpose program centering around the scientific study of settlement patterning in the Late Woodland Powhatan Confederacy. The primary means of accomplishing this study lies in the construction of a totally authentic pre-Columbian Indian village on the Pamunkey Indian Reservation. The village project was instigated by the Pamunkey Tribe in conjunction with their Tricentennial Celebration as a means of promoting cultural enrichment and economic development. The village will function as an outdoor extension of the forthcoming Pamunkey Cultural Center and Museum. The Pamunkey Research Center was established in 1977 for the purpose of constructing and maintaining the village, for directing research relating to settlement patterns, and for providing Native Americans, students of material culture, and the public at large with education and training in methods and techniques of ancient site planning and construction, primitive technology, Native American history, and archaeological interpretation.

THE SITE

Experimental site 44-KW-D, the Pamunkey Indian Village, is on the Pamunkey Indian Reservation adjacent to King William County, VA, in the heart of the former Powhatan Confederacy. This site will be created rather than destroyed as a result of the Pamunkey Project. No digging of archaeological remains will be done.

THE COURSE

Anthropology 520(51) - 521(52), Living Archaeology, a 10 week field school course in experimental archeology, conducted by the staff of the Pamunkey Research center, is intensive and exhaustive. A small team of selected students will receive training in the relevant past and present natural and sociocultural environments and archaeological and cultural interpretation in collaboration with the living Pamunkey Indians. Following guidelines suggested by the Society of Professional Archaeologists, students will also receive pre-field lectures and on-site instruction in small groups, supervise data acquisition, rotate responsibilities, keep records, and assist in the interpretation and analysis of the overall project. Using only tools of stone, bone, shell and wood, natural materials, and primitive technologies,

students will construct and furnish several longhouse dwellings in the Indian village.

ACADEMIC CREDIT

Six semester hours of credit are awarded for satisfactory completion of the course. These credits may be applied toward undergraduate and graduate degrees in anthropology. Students should check with their own school to insure credit transfer from Catholic University.

FACULTY AND STAFF

The Pamunkey Project and Research Center is directed by Erret Callahan, Research Associate and Ph.D. candidate at Catholic University. In addition, full to part-time staff members, visiting ethnobotanists, craft specialists, and guest lecturers will provide additional guidance and instruction.

Persons are needed to fill the following staff or student positions: staff members to supervise team activities, cook, dishwasher, librarian, secretary, and interpreter. Write for details.

ACCOMMODATIONS

Participants will live at a primitive campsite to gain additional insight into the articulation between natural environment and settlement. Food costs will be shared and students must provide sleeping bags and other camping gear and be prepared to cook their own food within a close team framework. Camp maintenance duties will be shared and rotated, necessitating selection of participants able to interact smoothly in a close social setting.

FEES

Graduate/Undergraduate \$540.00
Fee includes insurance.

ELIGIBILITY

Graduate, undergraduate, professional, and non-student. Native Americans are especially invited to apply for any student and/or staff position, competitive admission policy.

DEADLINE

May 1st, 1979 or when filled. Early application is strongly suggested.

FOR INFORMATION

Address all correspondence to:

Errett Callahan, Pamunkey Research Center
Rt. 1, Box 217-AA Pamunkey Indian Reservation
King William, VA 23086 804/843-3648

* * * * *

EARLIEST EVIDENCE OF MAN WALKING FOUND IN AFRICA

Human-like footprints discovered in hardened volcanic ash are the first concrete proof that an ancestor of man confidently walked upright more than 3 million years ago says a noted anthropologist.

Mary Leakey said the prints she discovered in East Africa show upright walking preceded development of a large brain and tool-making.

No sign of tools has been found at the site, and fossil remains of 22 individuals don't indicate large heads, she said at a news briefing at the National Geographic Society, a chief sponsor of her work.

IMPORTANT TO EVOLUTION

"The finds are of greatest importance in the picture of human evolution," she said. "They establish that man reached bipedal, free-striding gait (upright walking) much earlier than was known for certain.

"This unique ability freed the hands for myriad possibilities - carrying, toolmaking, intricate manipulation. The formula holds that the new freedom of forelimbs posed a challenge. The brain expanded to meet it, multiple activities became possible and mankind was formed."

Louise Robbins of the University of North Carolina, an anthropologist specializing in footprints, said the prints show the creatures' feet were very similar in shape and function to modern man's.

"The characteristics of rounded heel, raised arch and a large big toe are not found in other primates and make it possible to walk straight without shuffling from side to side," Dr. Robbins said.

Dr. Leakey said dating material around the prints shows that they are about 3.6 million years old.

Uncovered in the Laetoli area of Tanzania, the fossil prints were made by two creatures who apparently passed separately across a bed of volcanic ash which later hardened in the rain.

Dr. Leakey said that so far scientists have uncovered a path more than 78 feet long containing 20 prints from the larger individual and 27 belonging to the smaller.

The creatures making the prints were classified hominid, a general category meaning a man-like primate and not an ape. The footprints were similar to five discovered in the same area and announced by Dr. Leakey a year ago.

The creatures making the footprints appear to be small in stature. Judging from the stride length, the larger was about 4 feet, 8 inches tall and the smaller about 4 feet, she said.

The larger creature could have been a male and the smaller a female, or the prints could be from an adult and a juvenile. There are also indications that the two may have passed at different times.

"The simple evidence of the footprints, so very much like our own, indicates to me that the Laetoli hominid stands in the direct line of man's ancestry," Dr. Leakey writes in the April issue of National Geographic magazine.

From the Globe & Mail March 22nd, 1979

* * * * *

THOUSANDS GO TO NEWFOUNDLAND TO SEE WHERE VIKINGS ONE LIVED

L'ANSE AUX MEADOWS, NFLD. - With the cold wind cutting inland from the Strait of Belle Isle, this flat meadow looks nothing like the Vinland mentioned in the sagas of Lief Erikson, the site where Norse explorers first landed in North America.

Yet even without wild grapes, this is one of the most important archaeological sites in the world, one that is better known overseas than in Canada.

There is little to see beyond low grassy mounds that form the outlines of eight buildings almost 1,000 years old. They indicate that this place was the earliest known European community in North America and the oldest proved settlement.

Some things remain as the Vikings who lived here on and off for 35 years would remember them. Salmon still run in the small stream that provided drinking water, and the bogs that contained iron deposits used in the first smithy in North America are still here.

By this fall, visitors to L'Anse aux Meadows National Historic Park (the name comes from a corruption of the French for Bay of Jellyfish) will have more than their imaginations to help them see how the Norsemen lived here. Here, at the tip of Newfoundland's Great Northern Peninsula, three sod houses are being built following methods almost 1,000 years old.

The largest house, 28 metres long and six metres wide, is almost finished. With its slightly curved turf walls - each more than two metres thick - the house, its wooden roof poles covered by plastic wrap for the minute, looks like an upturned boat.

The sod houses will cost \$280,000., part of a \$1.6 million program by Parks Canada that will see a road and new visitors' centre telling the story of Norse settlements. The program will be finished by 1985.

The site was found in 1961 through some historical detective work by Helge Ingsstad, a Norwegian author and explorer.

He was looking for Vinland, where, the sagas say, the Vikings first landed in North America and found grapes growing wild along the coast.

Mr. Ingsstad had a theory that the grapes mentioned by the explorers might have been large red berries instead. More significantly, for the time given for the length of the voyages, the Norsemen would have travelled only as far

...Vikings...

as Northern Newfoundland.

So Mr. Ingsstad searched the rocky coast on foot, looking for signs that the Norsemen had been here. Finally, a man in a small fishing village remembered some grassy mounds in a meadow where his cows grazed and told Mr. Ingsstad about them.

The next year, Mr. Ingsstad was back with his wife, Anne, an archaeologist. By 1968, excavations under her direction had turned up enough artifacts to show that people had lived here and used a smithy to make tools and perhaps weapons from the bog iron with skills unknown to the Indians living nearby at the time.

Inside the largest sod house, archaeologists found a stone lamp similar to those used in Iceland and Greenland around the year 1000, as well as iron rivets, a needle and a Norse spinning whorl.

Other artifacts, including a bronze pin of Norse design and part of a domesticated pig's shoulder (an animal not to be seen in North America again for 500 years), were found in another house.

Carbon-dating tests on pieces of wood, turf and bone gave a date around the year 1000, or the time of the Norse voyages to North America.

The Vikings didn't stay long and the settlement might have been little more than a seasonal camp to haul timber from the spruce forests nearby and to hunt the wild game in the area.

The harsh winters and hostile Indians - referred to in the sagas as Skrae-lings or wretches - probably forced the settlers back to the permanent communities in south Greenland.

Still, there was a settlement in this little meadow open to the sea winds. That is enough to draw 4,500 visitors here each year. They come to stand near the hearthstones within the outlines of the turf houses and look up at the low hills where Mr. and Mrs. Ingsstad restored two Norse cairns that might have been used as navigational aids.

Many of the people who come here are serious students of Norse history or archaeology, said Robert McNeil, the park superintendent.

Ironically, many of the 70 villagers living nearby refused to believe that the Norsemen settled here. Some of them have worked on the archaeological digs, but they argue that the site is an old Indian village or the remains of houses build by European fishermen who visited Newfoundland after its discovery by Cabot in 1497.

L'Anse aux Meadows will never be Disneyland Norse, but its attractions are still powerful enough to draw thousands to this isolated place each year.

From the Globe & Mail March 26th, 1979

* * * * *

THE TIME CAPSULE

DEEP LAKE YIELDING EVIDENCE OF MAN 12,000 YEARS AGO

A deep lake that formed a natural time capsule in southwest Florida thousands of years ago has yielded discoveries which have raised scientists' hopes that they have found one of the most important sites for studies of ancient man, animals and climate in North America.

The site has yielded bones of now-extinct animals killed and cooked by humans 12,000 years ago, many plant specimens and artifacts, including what may be the oldest hunting boomerang ever found. A nearby burial site appears to be one of the largest in North America and dates as far back as 5,000 years ago.

The site was first frequented by humans 12,000 years ago, when the Northeast was still thawing out from the last great ice age. The climate in Florida was much drier then than it is today, and the water level was much lower. The vertically sided sink hole, called a cenote, must have been attractive to humans as a source of fresh water. It also served as a trap for animals that fell over the cliff-like walls and could not escape.

The boomerang, found on a ledge 90 feet below the lake surface, is a non-returning type thought to be capable of downing game up to the size of a small deer at a range of 200 feet.

Before this discovery, such non-returning boomerangs had been found in ancient Egypt, Australia and Western Europe, but never before in the Western Hemisphere, according to scientists involved in the new studies. Furthermore, its estimated age of 12,000 years appears to make this one older than any previously found.

"Unique cultural evidence, especially artifacts of wood, bone and shell, which seldom survive in the Southeast, has been preserved in what can be described as a natural time capsule at Little Salt Spring," says a report in a recent issue of *Science*, weekly journal of the American Association for the Advancement of Science. The site is near Charlotte Harbor.

The authors are a team of scientists from several institutions led by Carl J. Clausen, former Florida State marine archaeologist.

In the swampy ground of a slough near the lake, scientists have found an ancient burial ground estimated to have remains of at least 1,000 persons who lived 5,000 years ago. It is believed to be one of the largest burial sites of archaic Indians found in North America. Bones of 100 individuals have been unearthed. Among them, scientists have found a skull in which a substantial portion of the brain is still preserved.

"If our projections of the number of burials in the slough and spring basin are valid," says the report in *Science*, "we have here the best opportunity for physical anthropological studies on an archaic population since the discoveries decades ago in Indian Knoll, Kentucky.

From the *Globe & Mail* March 12th, 1979

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The Ontario Archaeological Society (Inc.)

Box 241, Postal Station P, Toronto, Ontario M5S 2S8

O.A.S. CHAPTERS

LONDON CHAPTER

Executive: President - Norah McWilliam
Vice-President - Rudy Fecteau
Secretary-Treasurer - George Connoy
Past President - Charles Nixon

Newsletter: KEWA Editor - Bill Fox
Usually at 9:00 p.m. on the second Thursday of each month, excluding June, July and August in Room 128, Somerville House, University of Western Ontario.

Chapter Fees: Individual \$4, Family \$6, Institutional \$10

Members: Approximately 50

Correspondence: c/o George Connoy, 762 Elm St., St. Thomas, Ont. N5R 1L4

OTTAWA CHAPTER

Executive: President - David L. Keenlyside
Vice-President - Clyde C. Kennedy
Secretary-Treasurer - Iain C. Walker
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Newsletter: THE OTTAWA ARCHAEOLOGIST Editor - Clyde Kennedy

Meetings: Usually at 8:00 p.m. on the second Wednesday of each month, excluding June, July and August, at the Canadian War Museum, 330 Sussex Drive, Ottawa

Chapter Fees: \$5 (Students \$3, Family \$8)

Members: Approximately 40

Correspondence: c/o David L. Keenlyside, Archaeological Survey of Canada, National Museum of Man, Ottawa, Ontario K1A 0M8

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Recording Secretary - Gerry Allaby
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Newsletter: Editor - Jim Harris

Meetings: Usually at 8:00 p.m. on the second Wednesday of each month, excluding June, July and August, at the Simcoe County Museum, Highway 26, Barrie, Ontario

Chapter Fees: Individual \$5

Members: Approximately 35

Correspondence: c/o Jamie Hunter, 818 King St.S., Midland, Ont. L4R 4K3

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Executive: President - Garth Rumble
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Meetings: Usually at 7:30 p.m. on the second Tuesday of each month, excluding July and August, at the Windsor Public Library, 850 Ouellette Ave., Windsor, Ontario

Chapter Fees: Individual \$3

Members: Approximately 40

Correspondence: c/o Peter Reid, Dept. of Sociology and Anthropology, University of Windsor, Windsor, Ont. N9B 3P4

The Ontario Archaeological Society (Inc.)

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Newsletter - ARCH NOTES

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Fees: Per annum: Individual \$8; Family \$10; Institutional/Corporate
\$20; Life \$200. Chapter Fees extra.

Members: Approximately 525

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