



ARCH NOTES

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Newsletter of

The Ontario Archaeological Society (Inc.)

O.A.S.

1978 Executive Committee

At the general meeting of the Society on December 21, 1977, the following were confirmed as candidates for election to the 1978 Executive Committee of the O.A.S.:

President	Dr. Peter G. Ramsden
Vice-President:	Mr. Bill Fox
Treasurer:	Ms. Christine Kirby
Recording Secretary:	Ms. Norma Knowlton
Corresponding Secretary:	(No nominations have been received for this position and the present incumbent - Ms. Sharon Hick - has agreed to remain until a new Secretary has been nominated for election.)

Nominations have now officially closed and elections will take place at the January 18, 1978 meeting of the Society. As no position is contested, no balloting will be necessary.

* * * * *

Thank You to Four Diligent Officers

I am sure that I express the appreciation of other members of the O.A.S. when I say thank you for a job well done to three of our executive members and one appointed member who have now resigned their official positions for varied reasons.

Patsy Cook is leaving the position of Vice-President which she has held since 1975. In addition to her vice-presidential duties, she has worked diligently organizing our fall symposia. Motherhood must now command more of Patsy's attention.

Sharon Hick, relinquishing the office of Corresponding Secretary after three years, has been the other moving force in seeing that the symposia took place with as little organizational chaos as possible - and successfully.

Martha (affectionately known as Marti) Latta resigns as Program Convenor after ably discharging her office for several years. None of us can remember when she has not been there.

Margaret Ann Clark has stepped down from the position of Recording Secretary after three years of ably recording the minutiae of Executive and general meetings of the Society.

In addition to the above offices, all four members have been involved in Society activities in general, lending advice and assistance willingly to less expert adherents. Hopefully they will continue to be active as time and other duties permit. We thank you heartily for your past efforts and look forward to any future participation.

Norma Knowlton

--- from the President ---

To All Members:

As most of you know, a conference was recently held in Toronto, co-sponsored by the O.A.S., at which archaeologists, government spokesmen and representatives of native peoples discussed the issue of unmarked human burials in Ontario.

At this conference, I committed the O.A.S. to a future role in the attempt to resolve the problems surrounding the excavation of burials. A number of recommendations were verbally agreed upon at the conference, perhaps the most important of which concerns recommended changes in the legislation which governs the excavation of burials. Specifically it was agreed that prior to any burial excavation, the permission of the descendants of the person or people being excavated must be obtained. If such descendants cannot be identified, then the permission of the closest Band must be obtained.

Since a large element in the whole issue seems to be that of mutual trust, I suggest that it is imperative that the agreement reached at the conference be respected pending further discussion and clarification or eventually the enactment of appropriate legislation. In order to demonstrate that the trust which may have been gained during the recent conference is not misplaced, I wish to advise the membership that pending further discussion and clarification or the enactment of further legislation, I shall consider that any knowing and wilful violation of the agreement outlined above by a member of the Society shall constitute unethical behavior. Further, pursuant to Section 18, Subsection 3, of the revised constitution, I shall upon learning of such a violation recommend to the Executive and the membership that disciplinary action might be considered.

Peter G. Ramsden
President

O.A.S. January Meeting

The next general meeting of the O.A.S. will take place at 8:00 p.m. on Wednesday, January 18th, 1978. Venue, as usual, will be the lecture theatre of the McLaughlin Planetarium, Royal Ontario Museum, 100 Queen's Park, Toronto.

After the election of the 1978 O.A.S. Executive, the speaker for the evening will be Dr. Tony Davis of the Department of Geography, University of Toronto, and his subject: "Vinland, Then and Now: The L'Anse aux Meadows Site".

All members and guests are welcome.

* * * * *

MEMBERSHIP RENEWAL

The majority of members commence their membership on the first day of the year. May we remind them that their subscription for 1978 is now due. Fees still remain at their bargain level and early renewal is recommended. Why not make use of the form below?

P.S. We need two or three more Life Members to bring our Life fund over the \$1,000 mark - we can earn more interest that way -- and it really is a bargain anyway!

Please mail your cheque/money order and the form to:

Membership Committee,
Ontario Archaeological Society, (Inc.),
P.O. Box 241,
Postal Station A,
Toronto, Ontario M5S 2S8

ARCHAEOLOGY IN ONTARIO 1977

by

Mima Kapches and John Reid*

Department of Anthropology
University of Toronto

This past year has seen an increase in the amount of fieldwork conducted in Ontario. This paper is a review of the research conducted and the preliminary results obtained by researchers. In preparing this paper we contacted all persons in the province who were licensed to do archaeological fieldwork under the provisions of the Ontario Heritage Act. This list was supplied to us by the Ministry of Culture and Recreation. The responses from these researchers forms the data base for the paper. I would like to acknowledge the assistance of all persons who responded to our request for data.

The organization of this paper is different from that of last year. There will be a brief overview of the research conducted in specific time periods. This data is drawn directly from the reports we received. As well, the responses we received are presented in an Appendix attached to this brief summary. It was thought that the information presented by the researchers was best presented in full, as well as discussed in an edited form, since this allows readers access to more specific report data. Copies of the Appendix of this paper can be obtained by writing either of the authors at the University of Toronto.

Many of the excavations this summer were of Iroquoian sites. The area of the St. Lawrence Iroquois continued to be researched by Jim Pendergast (National Museum of Man). Information on settlement patterns were collected during salvage operations at a site occupied ca.1500 A.D.

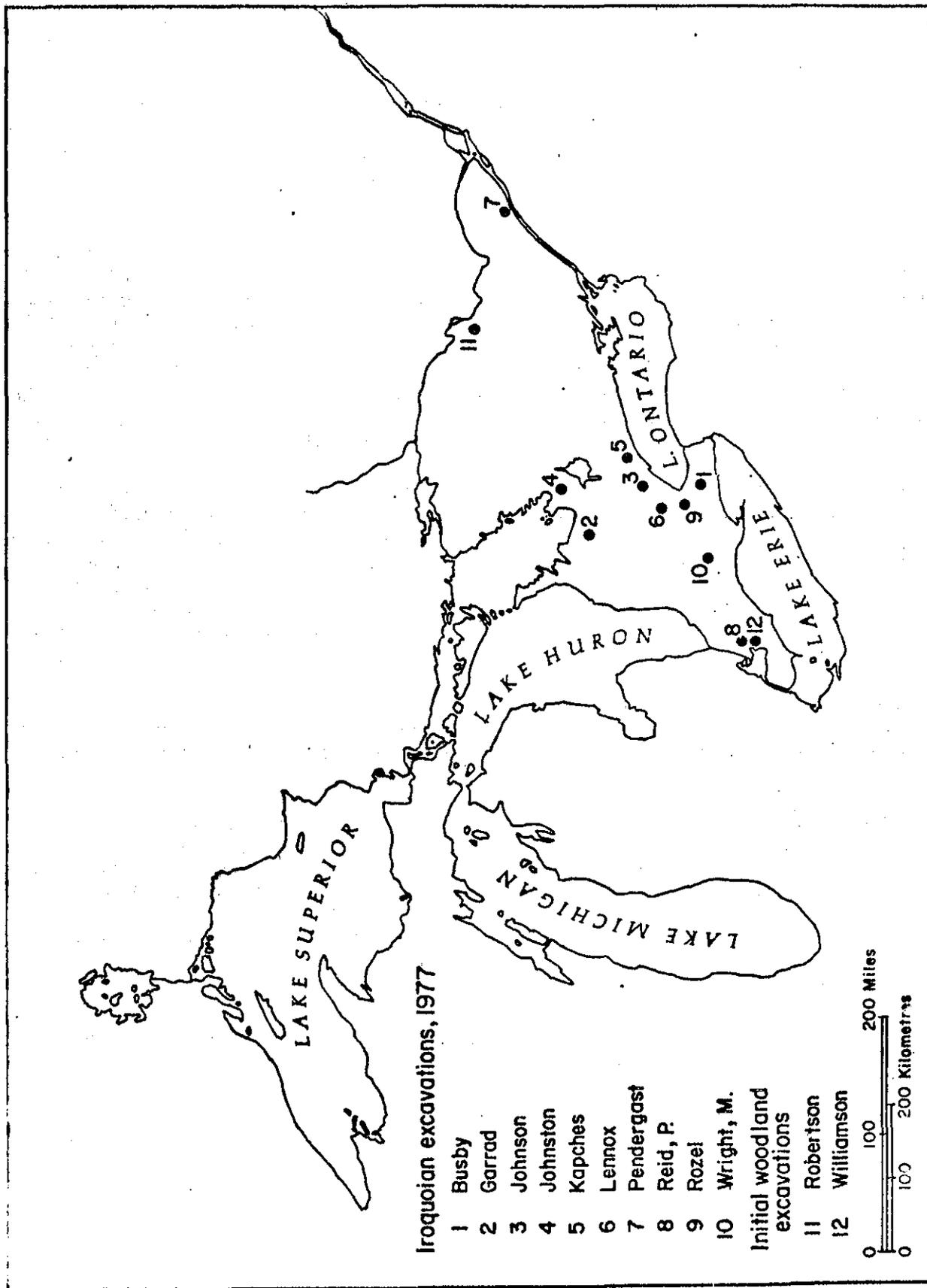
Moving westward, the area around Markham, east of the city of Toronto, was the scene of two sites of the Middleport period being excavated under the direction of Mima Kapches (University of Toronto). The data collected from this work will provide a regional study of the Middleport period ca. 1300-1400 A.D.

West of the city of Toronto, the Woodbridge site continues to be excavated by David Johnson (University of Toronto). This site is a proto-historic Huron village on the Humber River system.

North of Toronto, in the Collingwood area, research on Historic sites continues under the direction of Charles Garrad. Three sites are being surface collected and excavated to collect artifact samples and to delineate settlement patterns of the Petun tribe.

The historic Huron site of Le Caron continues to be excavated under the direction

*Paper presented at ESAF, Hartford, Connecticut, November 4-6, 1977.



of Richard Johnston (Trent University). This site is in the Midland area. Excavations to date have exposed longhouses and palisades; work this summer was directed to uncovering portions of the palisade.

In the Hamilton area of southern Ontario, fieldwork was conducted by several individuals. Paul Lennox (McMaster University) excavated the Historic Neutral Hood site. The site dates approximately 1640 A.D. Important finds included several Jesuit finger-rings and a religious medallion suggesting that the site may have been the one visited by the Jesuits Brebeuf and Chaumonot during the winter of 1640-1641. Melanie Busby (Trent University) excavated the Popeline site, a late Woodland village in the Hamilton area. Excavations were mainly directed to undisturbed midden deposits where a great variety of artifactual, floral and faunal materials were recovered. A third site excavated in the Hamilton area was the late Pickering Gunby site. This excavation was directed by Robert Rozel (McMaster University). Ten longhouses were located in this 2-acre village which dates ca. 1250-1300 A.D. Significant floral remains recovered include the earliest evidence of beans and tobacco in Ontario.

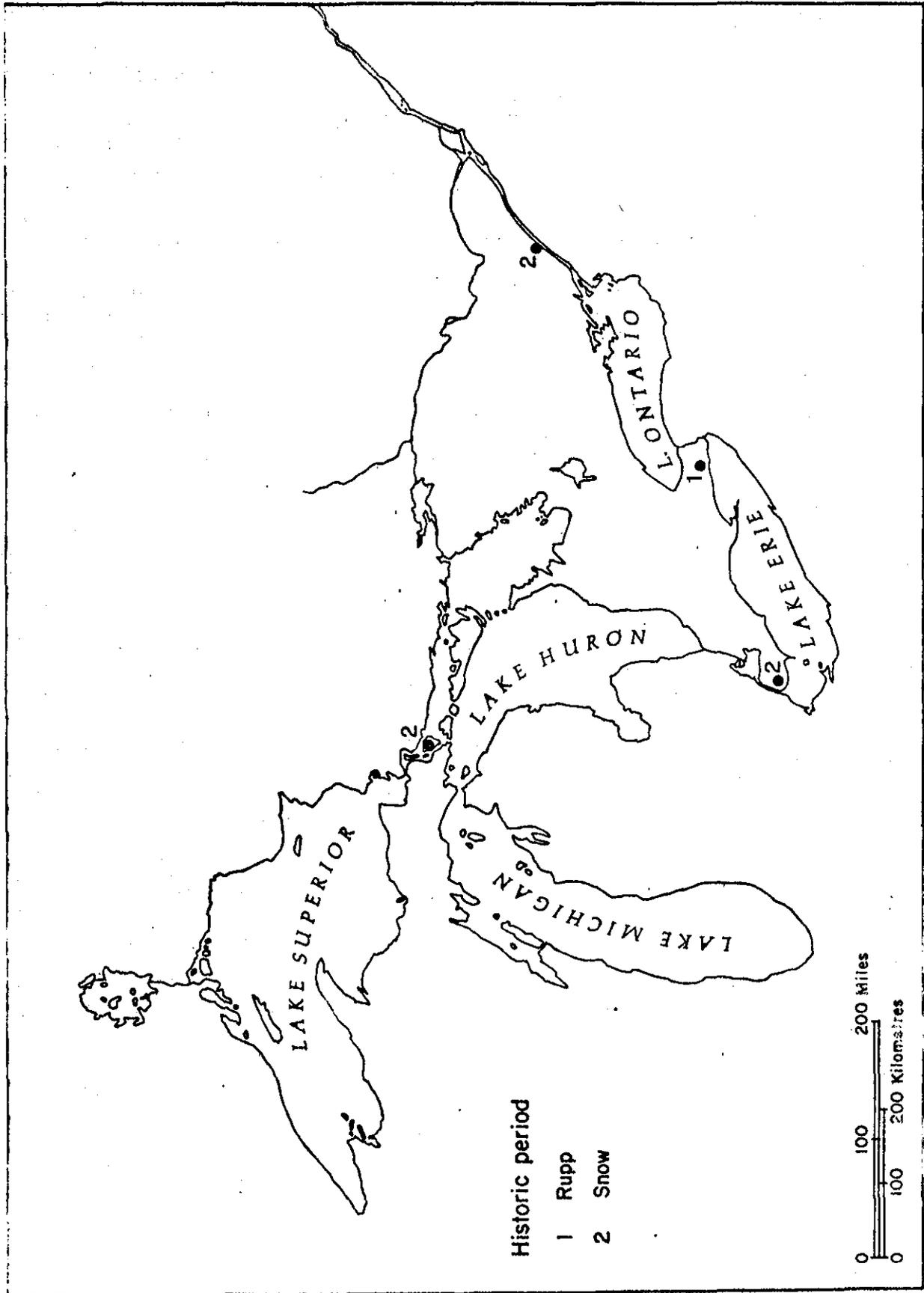
Moving into southwestern Ontario, an excavation of the Ureun site was conducted by Milt Wright (McMaster University). The site is 3-5 acres in size and 10 longhouses were located in the village area, which was surrounded by 2-5 lines of palisades. This site dates ca. 1250-1350 A.D.

Near the Wallaceburg area of southwestern Ontario, the Weiser site was excavated under the direction of Peter Reid (University of Windsor). This is an early late Woodland village which is enclosed by earthworks. The site was first surface collected and then excavated to expose a variety of cultural features.

Excavations were also conducted at two Initial Woodland sites. At the Early Woodland Liahn II site near Lake St. Clair, thirteen burials of which five were red ochre were uncovered in excavations directed by Ron Williamson (University of Western Ontario). A quantity of copper artifacts in the form of awls and beads were recovered, as well as Meadowood-like blades. Excavations were conducted at a Middle Woodland site in the Pembroke area of eastern Ontario under the direction of D. S. Robertson. This site has Point Peninsula affiliations. Additional sites in the area range from Laurentian Archaic to early Historic period.

Excavation of sites of the European period in Ontario was limited to 4 operations. The Jordan Pottery site near Jordan was excavated under the direction of David Rupp (Brock University). Work has revealed the kiln structure and has provided an artifact assemblage which suggests a tentative date of 1815-1845 A.D. for the operation of the pottery. The remainder of the historical work was conducted under the auspices of Parks Canada, and the information was provided to us by Elizabeth Snow. Fort St. Joseph at Sault Ste. Marie was excavated again this year and results demonstrate the presence of a trader's hut which seems to be different from the other huts at the site. Excavations at Fort Maude, Amersburg revealed evidence of prior buildings in the Fort's history. Work at Inverarden House in Cornwall revealed various aspects of the building's construction.

The majority of field work in the province this summer consisted of surveys and testing of sites. Much of the work done in the province was conducted by the Regional Archaeologists of the Ministry of Culture and Recreation. There were also many surveys conducted by various individuals in specific areas around the Province.



The work of the Regional Archaeologists is difficult to incorporate into a brief survey paper, since these individuals work in large areas of the province and conduct a great variety of field work, both surveys and salvage excavation. The variety of sites studied range from Late Paleo-Indian to historic aboriginal and European sites. Specific data on these surveys is available in the expanded version of this paper.

Surveys and excavations in northern Ontario were directed by three individuals. Chris Trott (University of Toronto) directed a survey on the Constance Lake Indian Reserve Number 92 in the general area of Albany River. The survey located 4 trading posts and 2 late prehistoric occupations. M. Bertulli (Laurentian University) surveyed the Mississagi River which flows from the north shore of Lake Huron. Three terminal Woodland sites and 3 rock structures were located. Within the survey area, 3 sites were excavated - both prehistoric and historic sites. All evidence collected in this area demonstrates that the delta of this river was an important occupation area in both prehistoric and historic periods. Research in the Dog Lake area northwest of Thunder Bay was directed by Mike McLeod (Lakehead University). In survey, 52 new sites were discovered and the time ranges represented a span from Paleo-Indian through to the historic period.

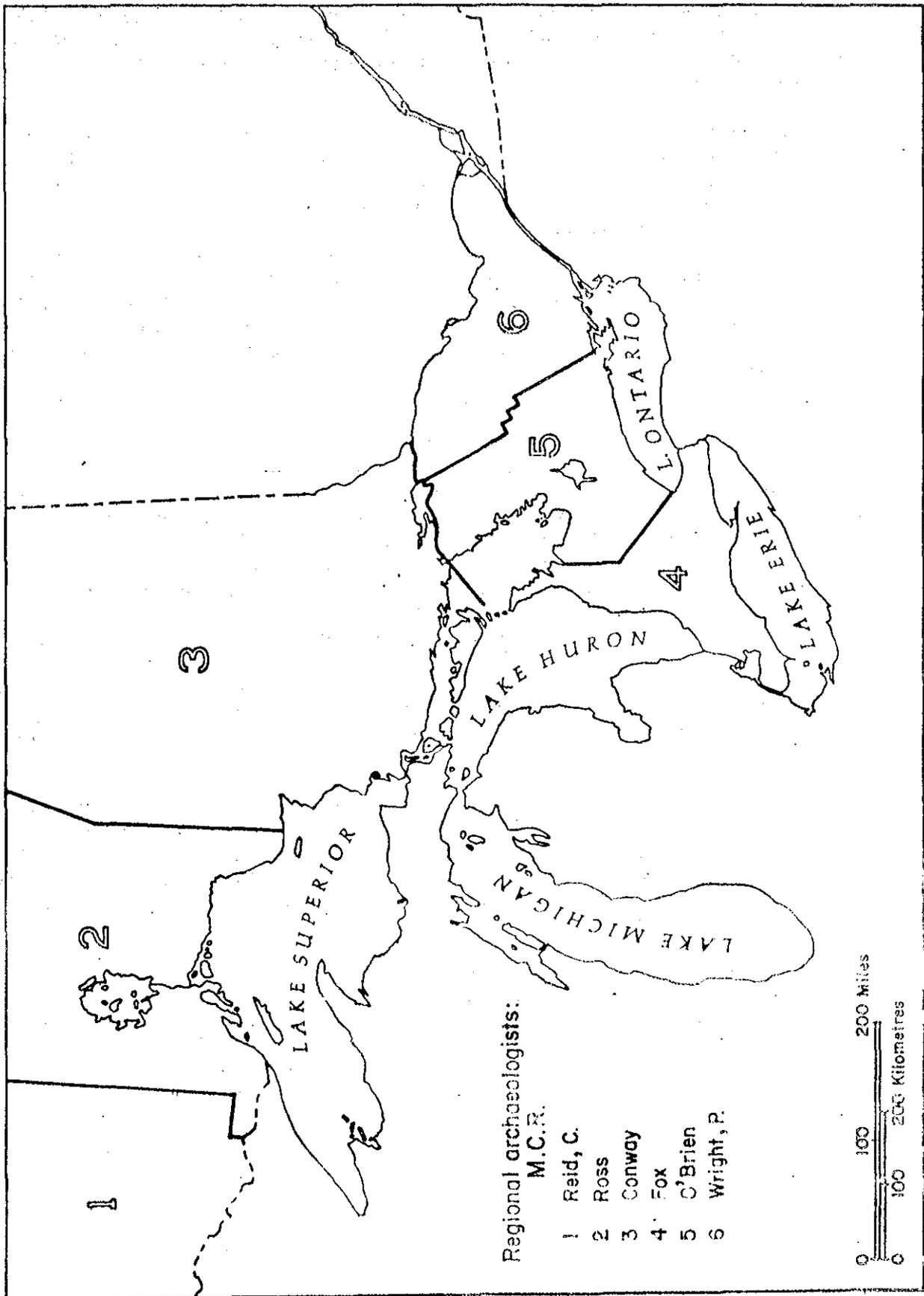
Survey in southern Ontario was conducted by several individuals. Surveys directed to finding sites of the Paleo-Indian or Archaic period were conducted by 4 individuals. Arthur Roberts (York University) collected data on pre-ceramic occupations on the north shore of Lake Ontario. To date he has located 2 Paleo-Indian sites (Hi-Lo), 2 Early Archaic and 23 Late Archaic sites. Christopher Ellis (McMaster University) surveyed for sites of the Paleo-Indian period in the Niagara Peninsula area. He has located two possible Paleo sites, plus a series of Archaic sites. Sites from Archaic to Woodland times were found in the survey. A survey for sites of the Paleo-Indian period was conducted by John Prideaux in the Schomberg and Black River Valleys north of Toronto. Three sites with Paleo-Indian components were discovered on Lake Algonquin shorelines by the survey. One site, the Zander site, has evidence of Holcombe, Hell Gap, Plano and Early Archaic occupations.

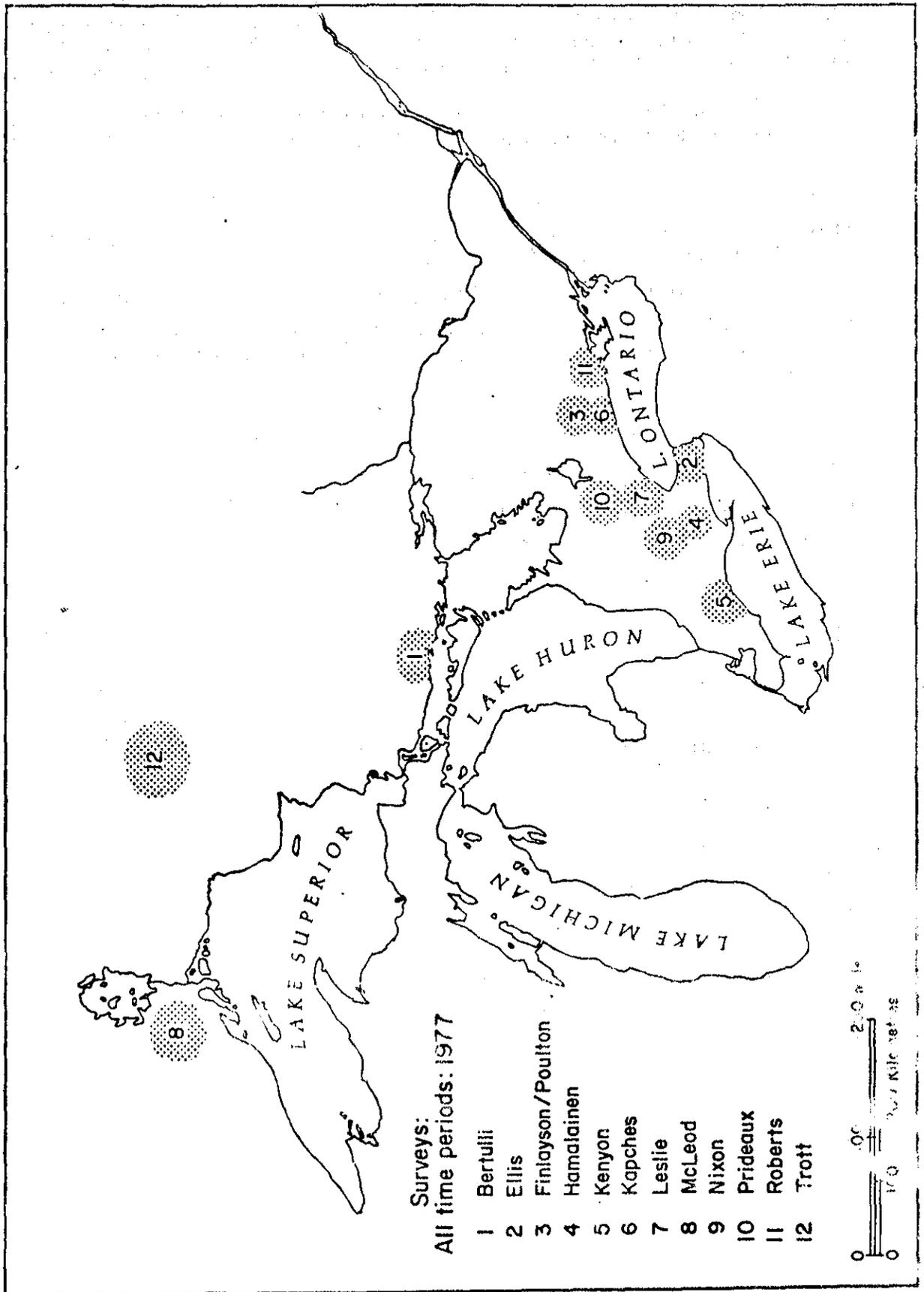
General surveys (not specifically directed to a time period) were conducted in southern Ontario by several individuals. Charles Nixon continued to survey in the area of Ayr, Ontario. He has located 3 small Archaic camp-sites and an Iroquoian village. Stewart Leslie surveyed in the Hamilton area, specifically areas which are slated for development. Finds are mostly scattered Archaic artifacts, and one possible Paleo-Indian site and an Archaic site.

Survey by Bill Finlayson and Dana Poulton (Museum of Indian Archaeology) continued this year in the New Toronto International Airport area northeast of Markham, Ontario. The size of the survey area is 18,500 acres and by mid-October when the survey will be completed, 60% of this area will have been surveyed intensively. To date, 12 Iroquoian villages, one ossuary, and several dozen Archaic camp-sites have been located. Additional testing at the Draper Iroquoian site in the airport area revealed that the site now covers 15 acres and that it underwent at least six village expansions.

SUMMARY

In review, it can be seen that a great deal of fieldwork was conducted in the





province this year. Areas of concentration of fieldwork were southern central and southwestern Ontario where most excavations and surveys were conducted. It is encouraging to note the increase of research in the northern part of the province by both the Regional Archaeologists and University researchers.

It is apparent to those working in Ontario that the next few years will see an expanded and much-clarified picture of the prehistory and history of the province.

ADDENDA:

Knight, Dean: (Wilfrid Laurier University). Excavated the early historic Huron "Ball Site" near Warminster, Ontario.

Mahon, J.A.: (Ministry Natural Resources). Surface collected in the Kenora area.

Smith, David: (Museum of Indian Archaeology, University of Western Ontario). Surveyed and surface collected in the Talbot Creek and Kettle Creek area near St. Thomas, Ontario.

INSTITUTIONAL AFFILIATION:*

Brock University, St. Catherines

Lakehead University, Thunder Bay

Laurentian University, Sudbury

McMaster University, Hamilton

Ministry of Culture and Recreation, Ontario

Museum of Indian Archaeology, University of Western Ontario, London, Ontario

National Museum of Man, Ottawa

Parks Canada

Trent University, Peterborough, Ontario

University of Toronto, Ontario

University of Western Ontario, Ontario

University of Windsor, Windsor, Ontario

York University, Toronto, Ontario

Rupp, D.

McLeod, M.

Bertulli, M.

Ellis, C., Lennox, P.,
Rozel, P., Wright, M.

Conway, T., Fox, Wm.,
Hamalainen, P., Kenyon, I.,
O'Brien, R., Reid, C.S.,
Ross, Wm., Wright, P.

Finlayson, Wm., Poulton, D.

Pendergast, J.

Snow, E.

Busby, M., Johnston, R.

Johnson, D., Kapches, M.,
Trott, C.

Williamson, R.

Reid, P.

Roberts, A.

*At the time the project was undertaken.

Researchers with no Institutional Affiliation

Toronto, Ontario

Hamilton, Ontario

Ayr, Ontario

Toronto, Ontario

Deep River, Ontario

Garrad, Chas.

Leslie, S.

Nixon, Chas.

Prideaux, John

Robertson, D.S.

* * * *

O.A.S.

MONTHLY GENERAL MEETING

November 16, 1977

reported by Janet Cooper

Our guest speaker for the evening was Dr. David Pendergast, Curator of the Department of New World Archaeology at the Royal Ontario Museum and Chairman of its Committee for Field Archaeology.

David Pendergast has been at work in the country of Belize in Central America since 1963. The scope of his current work represents one of the larger operations in the Maya area these days; this often surprises Canadians because they see no real tie between Canada and Belize, but in fact there has been a very long archaeological one between the two countries. Tiny Belize is on the periphery of the Maya area, set in at the base of the Yucatan peninsula; it is, in large part, mangrove swamp or coastal plain. Before work began there, it had been assumed that Belize was a cultural backwater, a place where nothing of any tremendous importance had ever happened in Maya prehistory. The work carried out at Altun Ha in the 1960's showed that this was not so. When the work at Altun Ha was completed in 1970, Dr. Pendergast began to look around for another site. He was attracted to Lamanai (some 40 km away) by the knowledge that a Franciscan church had been built there some time during the latter part of the 16th century. This had been occupied until 1641, when the Maya burnt it down. The existence of the church seemed to provide a good basis for believing that Lamanai had had a sizable population in the 16th century; if this were indeed the case, it would have represented the only site in the whole of the Central Lowlands for which there was any indication of a population during that period. Incidentally, constructing and supplying the camp at Lamanai are major operations, since no settlements exist nearby and there are no roads to the site. As a result, boats were the lifeline of these operations.

Lamanai architecture, it was discovered, was essentially a "strip" development along the lagoon on which it is located. Buildings consist primarily of ceremonial structures, with a residential area to the north and west. It is very unlike a standard Maya centre, which normally consists of one or more central plazas with major temples arranged around the plazas and residential areas beyond these. Here, the buildings of the entire lagoon front seem to be ceremonial structures and, curiously enough, none of the major structures looks out at the lagoon.

Archaeological work on the Franciscan church began about the middle of the 1974 season. It was built on a rock, but the floor and the apse area appear to have been the only portions of stone construction; the remainder is thought to have been thatch, in the manner of residential structures of the period. From this building came evidence that the Maya, after they burnt the building, used it as a residence -- probably in the mid or latter part of the 17th century. Material collected represents the latest datable material from any part of the Maya area, except one other site in Yucatan. The pottery seems not at all different from

that which comes from sites dated a century (or even as much as two and a half centuries) earlier. So, it may be that, with respect to materials from the period just prior to and just after the Spanish conquest, the only distinction in pottery is context. One of the things Dr. Pendergast hoped to find was the cemetery belonging to the Franciscan church. This was indeed discovered, in a mound nearby. Apart from the two pieces of what may be European metalwork which came out of the cemetery, the only artifact found was a portion of a bone rosary. The human remains of this cemetery will, however, provide a great deal of important information on populations, which until now has been lacking.

In the area of the camp, some distance from the church, there is a tremendous range of structures, all of which fall into what is called the Post-Classic period, that is the period after the collapse of civilization in the Maya lowlands. This makes Lamanai absolutely unique in Maya prehistory, as the only site in the Central Lowlands where the collapse did not occur. The reasons for this are ones we may never know entirely, but we do know that in some senses the people of Lamanai achieved their greatest heights in the Post-Classic period (the 11th, 12th and 13th centuries) and this in some ways probably extended on to the time of the Spanish arrival. The range of architecture was one very different from that seen elsewhere and is from a time period about which nothing had been known before. The earliest parts of structures -- most of which had been added to and altered many times -- probably date back to the third and fourth centuries A.D.

Burials in very considerable quantity came from all the smaller buildings excavated. A good many of them were found in a very odd, frog-like position with the legs bent back to rest against the pelvis. In some parts of the world, this position is one representing dishonour to the deceased; but here the burial accompaniments were often extensive, and so some significance other than this is suggested.

In buildings both large and small, offerings were discovered. These were presumably placed in the buildings with ceremonies carried out to ensure successful construction and/or that the building would last for the requisite period of time. Offerings are usually on the mid-line of a building, but are so variable in form that one cannot predict what they will be like or, indeed, even if they will be found in any particular building. One example is a large pottery vessel with an inverted plate over its top and an arrangement of large ceremonial flints around its base. These particular vessels have characteristics like one lot of three pieces from Altun Ha, where the date appears to be 9th or very late 8th century. Ceramic objects of other kinds include representations of the human face or body, many of them ferocious looking and presumably representing gods. Many have been intentionally smashed, and so relate to the universal Post-Classic practice of ceremonially smashing vessels. On the whole, burial pottery represents a very great variety of styles and sizes.

From Early Classic levels, some exquisite jade pieces have been recovered (late 5th or early 6th centuries A.D.). Many were already heirlooms when they were buried, and so caution must be exercised with respect to dating from the pieces alone. Very few of the objects recovered during excavation are as striking as those which came out of Altun Ha. But one piece found at the end of the past season is one of the finest bone carvings ever to come from the Maya area. Probably of human bone, the piece is carved in the full round, is about 14 cm high and probably represents a priest in costume. It, and other objects from Lamanai, will soon be on display in the current research case at the ROM.

The Lamanai project is approximately half-completed. The total number of

structures within the four and one half square kilometres now mapped is about 700. Not all of these will be excavated, but it is planned to sample as widely as possible. Testing will begin this season on one of the largest of the buildings, where it may well be discovered that construction spans the entire time of occupation at Lamanai. At the same time, other buildings -- both large and small -- will be tested; if testing reveals that a building is only either very early or very late, it will be set aside. Excavation will, however, still continue on a number of other buildings, according to the current program which runs until 1981. Then in perhaps 1983, an entirely separate project will be launched to excavate these previously-tested buildings along with some related structures. By the time this issue of Arch Notes reaches its readers, Dr. Pendergast will already have reached Lamanai and have begun directing yet another rewarding season of archaeological activity, far from the reach of our Canadian winter.

* * * *

SYMPOSIUM 1978

The Ottawa Chapter has expressed its interest in hosting next fall's Annual Symposium. There appears to be considerable support for this, not only among Ottawa members but also here in Toronto. Although the cost of travelling to Ottawa from Toronto increases the cost of attendance at the Symposium, National Museum of Man facilities (which are excellent) can very likely be obtained free of cost, thus lowering registration costs.

There is a strong feeling that, by giving a major responsibility such as this to the Ottawa Chapter, the Society is lending some reality to its role as a province-wide organization. The Executive welcomes the opinions of members on this matter, of course; but, unless information is received that clearly indicates that there are major drawbacks to holding the next Symposium in Ottawa, it will be proceeding with the arrangements.

A

MERRY CHRISTMAS

and a

HAPPY NEW YEAR



THE SEMIWITE LAKE SITE - 1:
A WOODLAND SITE NORTH OF ELLIOT LAKE, ONTARIO

by

Morris Brizinski
Laurentian University

Introduction

Semiwite Lake is one of a number of interconnecting lakes found in the Mississagi Provincial Park, located approximately twenty miles north of Elliot Lake. The boulder-gravel outline of the lake set against the mountainous terrain indicates its previous history as an outwash river of the last glaciation.

The site, situated on one of the lake's two sand beaches, was initially discovered in 1974 (Conway 1974). The pragmatic camping facilities such as a sandy beach on a portage trail and the aesthetic floral surroundings have seen a yearly increase in the use of the location by tourists. The results of these modern-day camping excursions have left the prehistoric record in a highly disturbed condition.

In conjunction with archaeological studies carried out at Laurentian University by Professor H. E. Devereux, a small group of volunteer amateur and professional archaeologists visited the site on two cold and wintry days in October 1976. The aims of this expedition were twofold: to salvage those artifacts which had lost their contextual setting and to determine what information could be derived from the undisturbed portion of the site.

Description

The site is characterized by a slightly sloping sand beach that meets an eroding gravel-sand embankment some 15-25 feet from the lake shore. Behind the sand beach, 35 feet from the water's edge, are glacially-deposited cobbles and boulders interspersed between sheared megalithic outcroppings of sedimentary rock. What remains of the site is a thin veneer of cultural debris, approximately three inches below the forest duff, in a six-foot cultural band traversing a distance of 150 feet along the sand beach.

A base line, 220 feet long and at an angle of 140° to magnetic north extended from a wooden monument which was placed at the lake shore. Four trenches, five feet wide, started from the water's edge and stretched to the eroding bank. These trenches were shovel-shined and the sand sifted through 3/8-inch mesh screens (see Fig. 1). One five-foot square was partially excavated on the undisturbed portion of the site. A lack of time prompted the excavator to cover the floor with plastic and backfill the square so that a complete excavation might be possible at some future date.

Stratigraphy

Since time was at a premium, Square One was cross-sectioned along the eroding bank where a partial profile could be described. The soil profile obtained is illustrated in Figure 2.

It is unknown at this time whether the sand zone described in the upper section of the profile is of aeolian or fluvial origin, but a test cut along the southerly edge of the site showed finely bedded pebble and gravel layers which may indicate that part of the depositional history of the soil was a result of water action.

The cultural material was found in a grey-to-black coloured sand immediately below the forest duff. About three inches thick, this cultural layer is surprisingly uniform except where a particular feature has interrupted this uniformity.

Recoveries

Features. Although Square One was only partially excavated, two important features were identified - a pavement of thermally-altered rock and two small pits. A floor plan of Square One is diagrammed in Figure 3. Pavement of Fire-Cracked Rock: the most unusual characteristic of the site as a whole was the proliferation of fire-cracked rock. In Square One, these rocks formed a thin veneer below the humus layer. On the average, the rocks were small, measuring 2" x 3" x 1", and angular in shape. The rocks in the immediate area of the site, but not associated with cultural activity, were larger and did not exhibit the angular or blocky structures consistent with heat fracture.

Evidence of firing was confined to two pit features found within the square, but this was insufficient to account for the proliferation of rock. The purpose of this pavement, which from all indications covers the site as a whole, cannot as yet be determined. Pits: pit #1 was shallow, three and a half inches deep and fourteen inches wide, while the second pit was eight inches deep and twelve inches wide. Both were interspersed with fire-cracked rock and charcoal.

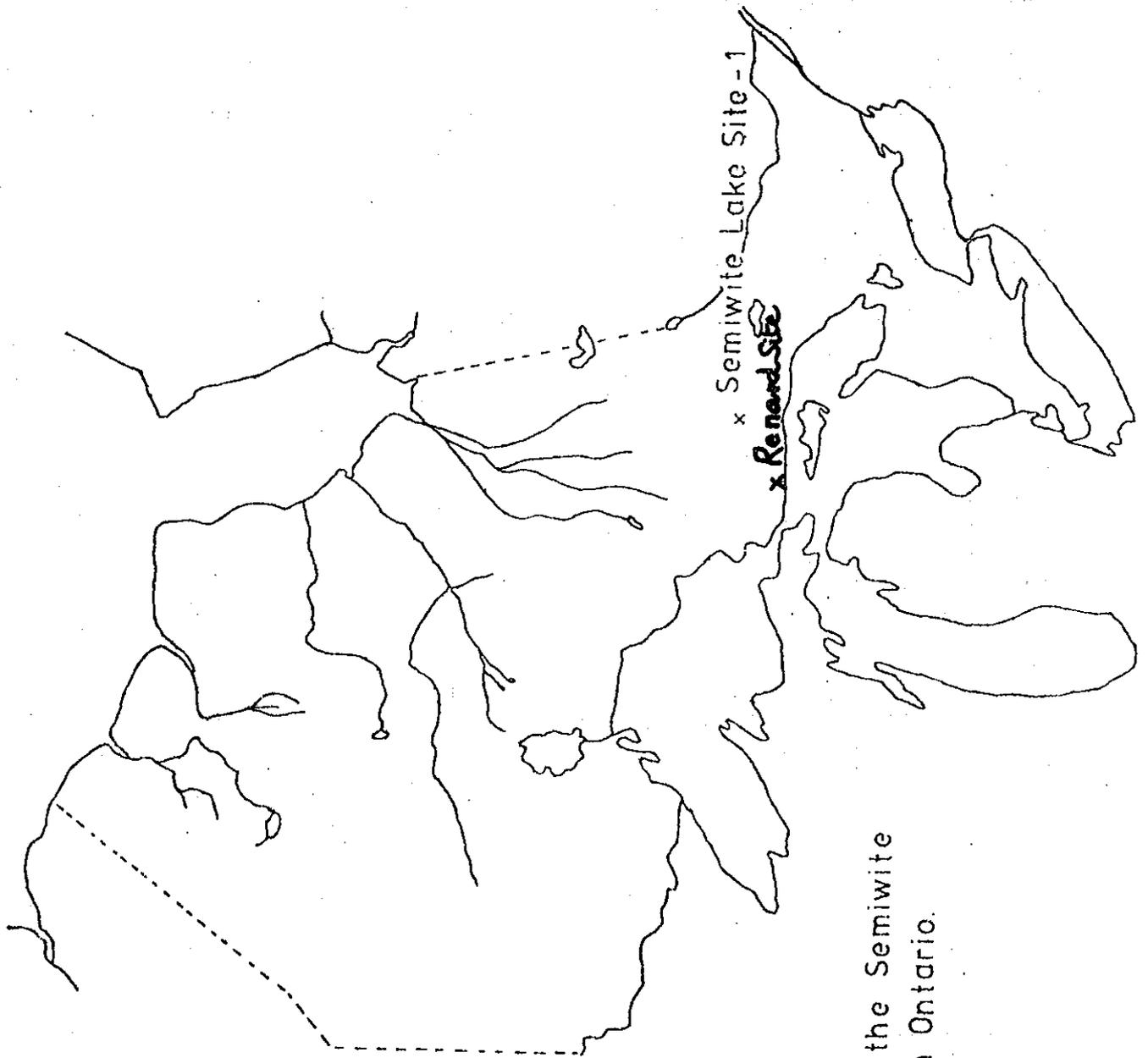
One kilogram of soil from each feature was dry screened through 1/16-inch wire mesh. Recoveries were comprised of charcoal, "spore balls", and three chert pressure flakes. R. Fecteau of the Royal Ontario Museum, Geobotany Division (personal communication) stated that the charcoal was derived from the genus Pinus (Pine) while the "spore balls" are a natural phenomena. Tentatively, these features have been interpreted as refuse pits.

Ceramics. One sherd was recovered from Trench E30. The laminations present and the absence of a coil break indicate a particular technique of vessel construction, probably paddle and anvil.

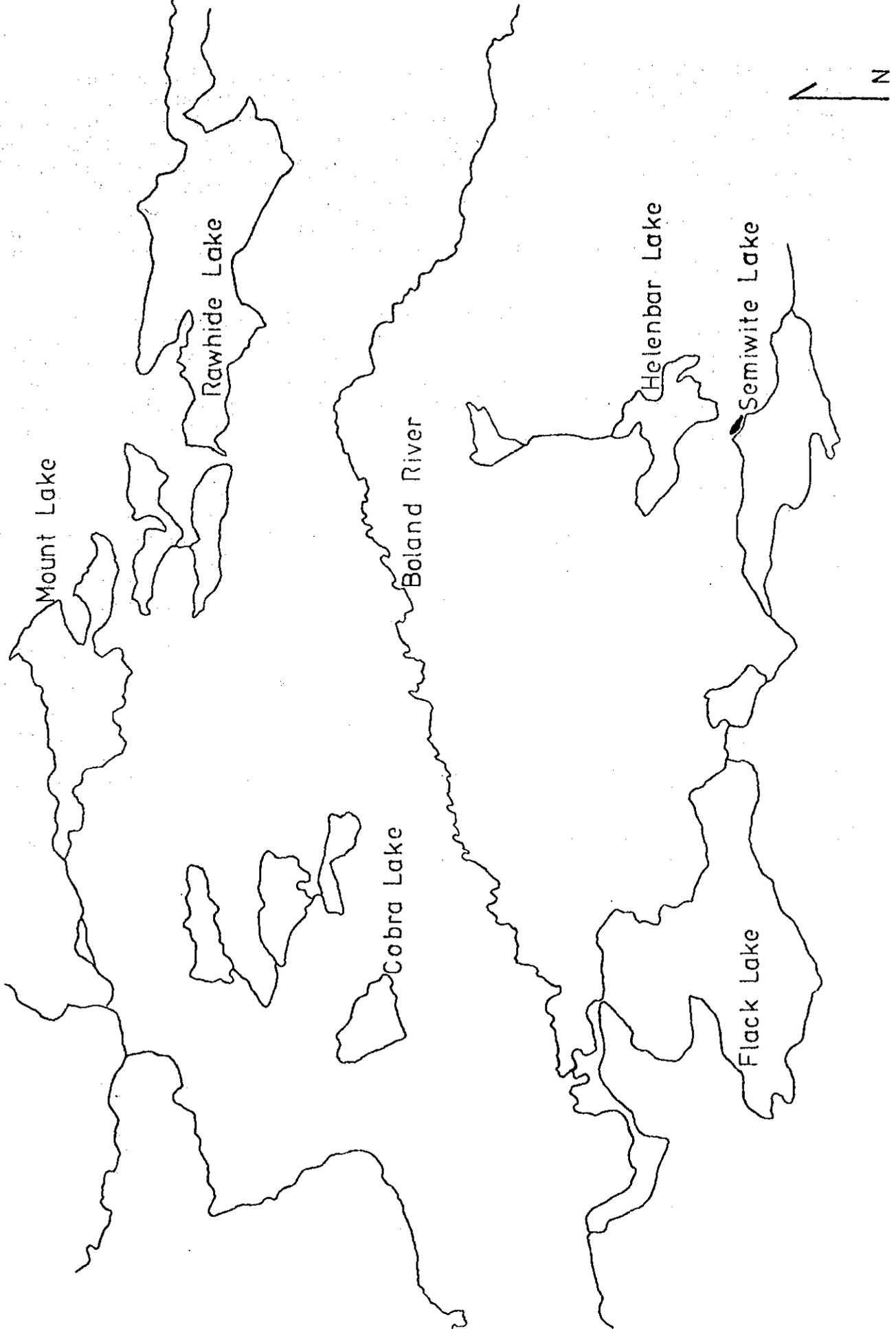
Temper is derived from feldspar and quartz. The overall coarseness of temper, with grain size ranging from 0.5 to 4.0 mm. may denote that it was obtained from the local beach. The paste ranges in colour from grey to black from the external to internal surfaces and from grey to orange from top to bottom.

A thin veneer of a carbonized encrustation is present on the internal surface which implies that the vessel probably functioned in a cooking operation. The nature of the material being boiled is unknown at present.

No decorative motifs are present on either surface of the sherd, but it does exhibit the general attributes of a Woodland vessel. Perhaps its single most important feature is that it establishes a base date for the occupancy of the site, i.e. not before approximately 2500 years ago.



MAP 1: Location of the Semiwite
Lake Site in Ontario.



MAP 2: Location of the site in Mississauga Provincial Park.

Lithics. Raw material: glacially-deposited cobbles and boulders of Lorraine quartzite and Gordon Lake chert are present throughout this area. It is probably because of their local abundance, since both exhibit poor flaking characteristics, that these sources were utilized so extensively for tools by the Woodland inhabitants of this area. The use of Gordon Lake Formation chert has been limited to Late Archaic times (Pollock 1975; Conway 1977), with the exception of a single flake being recovered from the Terminal Woodland Renard Site located on the Mississagi delta on Lake Huron (Bertulli and Kilpatrick 1977). The coarse-grained chert varies in colour from orange to dark green; however, the dominant colour utilized is dark green.

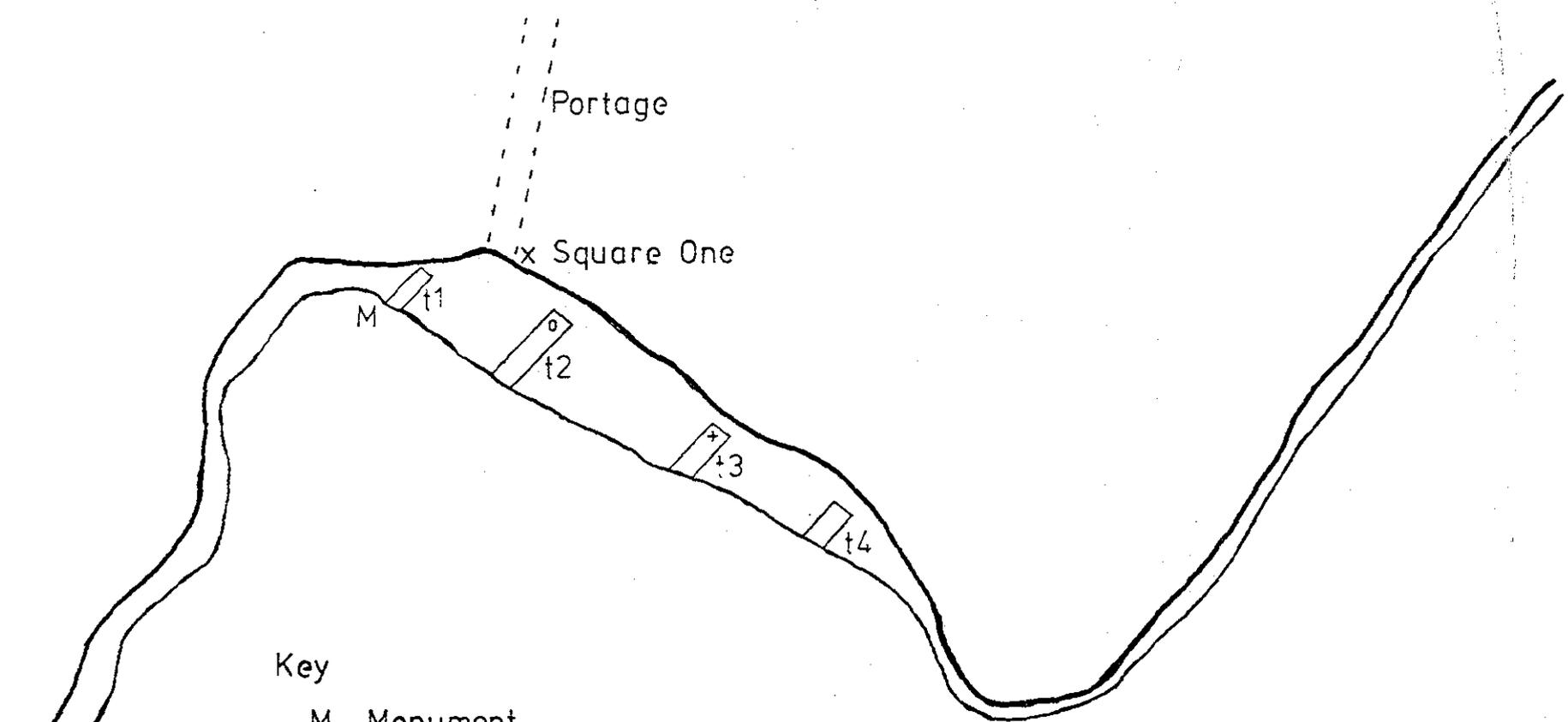
Other sedimentary rocks native to the area were utilized primarily in heating activities by the occupants of the site. One piece of hematite was recovered and it is believed that this material can be locally derived. The only material imported to the site was the pebble/cobble Hudson Bay Lowland chert, for which no source area has been determined to date. The blue-grey glossy chert originates in the Severn, Ekwon and Stopping River Formations in the Hudson Bay Lowlands (Sanford, Norris and Bostock 1968).

Flakes: (i) Pressure Flakes. Only four pressure flakes were recovered; the relative paucity of this class of specimen may be a function of the recovery techniques employed, rather than a reflection of the particular stone usage of the inhabitants. (ii) Secondary Flakes. A total of eighteen secondary flakes were recovered. They are characterized by diffuse or no bulbs of percussion, faceted platforms and, occasionally, with crushed surfaces. However, 39% of the flakes have no platforms at all. In addition, there were no dorsal ridges nor any indication of previous flake removal on any of the flakes derived from Gordon Lake chert. The platform angles range from 30-105° with a mean of 71°. Terminations are usually stepped, although feather terminations are also present. (iii) Primary Flakes. All seven primary flakes are derived from Gordon Lake chert. The ruptured ventral surface of the flakes indicates the zones of weakness within the material and is a good possibility why this material was not used extensively. The rather perpendicular platforms may suggest a block-on-block percussion technique of flake removal.

Shatter Fragments: six artifacts, exhibiting angular structure without any of the characteristics of a flake or core, were assigned to the shatter fragment category. All such fragments were derived from Gordon Lake chert.

Cores: two rectangular block cores and one cobble core were recovered. The rectangular cores are symmetrical in shape because fractures have occurred along the planes of weakness within the chert. Flakes were removed in what appears to be an effort to thin the core, rather than utilize the flakes. The crushed surfaces at both ends of the core indicate that the bipolar technique was probably used to manufacture pebble-core tools. The cobble core is characterized by the removal of several secondary flakes with no attempt to reduce the seven-inch diameter of the cobble to a manipulable form. It may have been rejected because of the variability in grain size within the chert material.

Tools: (i) Edge-Deteriorated Flakes. Flakes with edge alterations that do not change the original morphology of the flake have been termed edge-deteriorated flakes. Three such flakes, all derived from Hudson Bay Lowland chert were recovered. The edge angles of these flakes are less than 20°. The impression one is left with is that these flakes were utilized of necessity, since they are poorly designed for



Key
 M Monument
 t trench
 o 1976 sherd
 + 1974 sherd
 - shoreline
 — 5' contour
 Scale: 1" = 50'

FIGURE 1: Location of trenches and Square One,
 Semiwite Lake Site - 1.

a cutting function. (ii) Unifacial Tools. Two flakes have been unifacially flaked along the margin. The resulting serrated edge is an effective cutting tool. Both flakes were derived from Gordon Lake chert.

Analysis

The sparse recovery of artifactual and contextual data restricts any comprehensive interpretation of the site. Certain observations suggest a seasonal occupation of the site during the winter months.

Stratigraphy: the rather uniform stratigraphy of the cultural lens is unusual when compared with sites interpreted as having a spring to fall occupation. When we returned to the site in late October, the ground was partially frozen and this prevented the usual disturbance that occurs when walking on a sand beach. The frozen earth at the time of aboriginal occupation may be one explanation for the uniform stratigraphy of the site, since pedestrian motion appears not to have affected the cultural horizon.

Features: one of the most unusual features of the site was the pavement of fire-cracked rock that, by all indications, covered the entire site. Such a feature is rarely reported and no interpretation of it is presented. However, if the site had been occupied during the winter, the heating activity associated with fire-cracked rock may represent a cultural adaptation to cold weather survival.

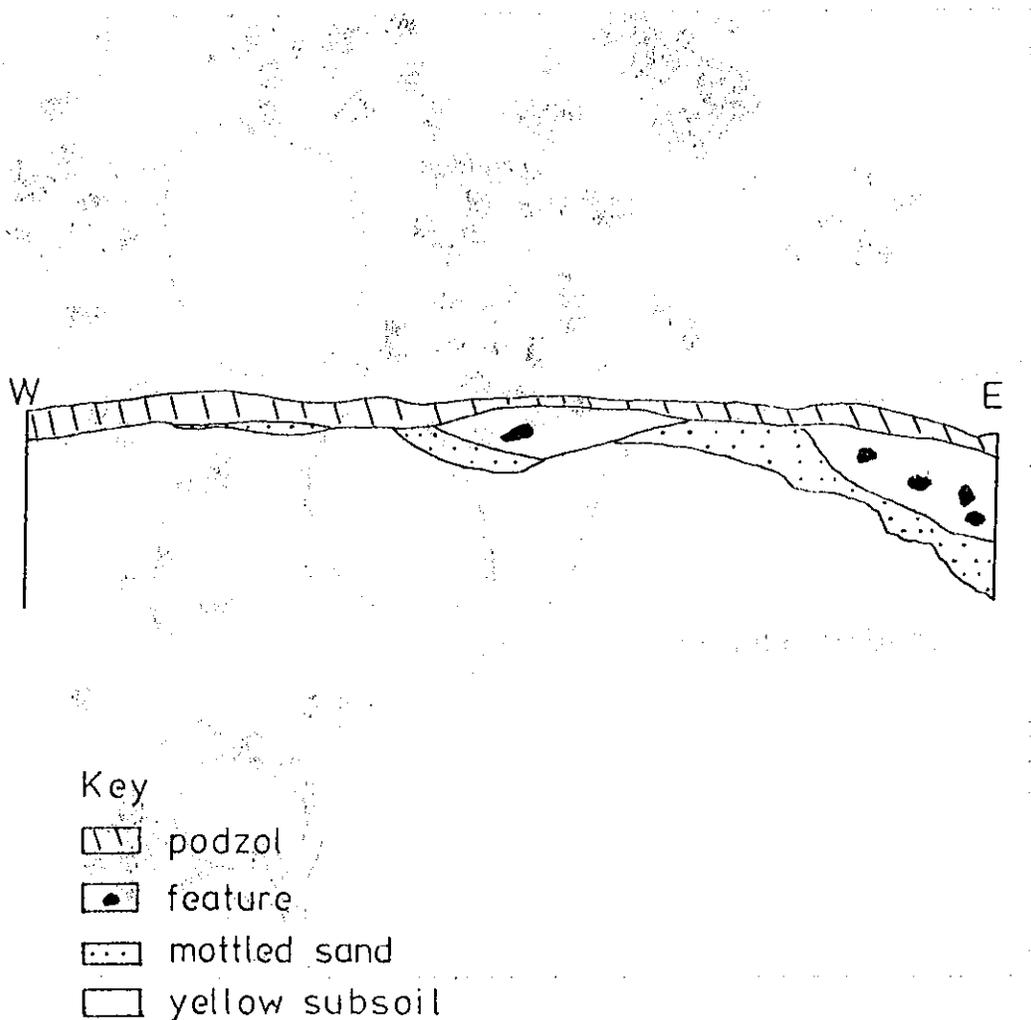
Lithics: the use of poor quality Gordon Lake chert cobbles and boulders, the near absence of imported materials as well as the use of materials which would generally have been discarded suggests an acute shortage of good quality material. This is a problem one might expect during the winter months, when most of the energy expended would be directed towards the procurement of food. Although these observations are based on a paucity of artifactual remains, the hypothesis that the site was a winter occupation can be tested in the future, if the site is to be re-examined.

Summary and Conclusions

Although the artifactual inventory recovered from the Semiwite Lake Site is minor, it does not in any way detract from the archaeological value of the site.

In the author's opinion this site represents an annual winter habitation site of Algonkian People in the Woodland era. At present, this aspect of seasonal adaptation of Algonkian People is poorly represented in the archaeological literature and it is imperative, therefore, that further investigation on the Semiwite Site be tempered with utmost care and scrutiny.

If the site is to be re-examined, the archaeologist should address himself to the following problems: (1) determine whether pertinent observations could be made which would aid in the interpretation of the site as a winter habitation site before actual excavation. In this way, observations may be proposed regarding the enigmatic features that are certain to be encountered; (2) the site should be accurately dated. At present, the author feels that the site was occupied by Terminal Woodland Algonkians. The reasons for this are: the presence of pottery on the site; Gordon Lake chert was used to fashion pebble-core tools rather than the characteristic bifacial tools of the Archaic era, and although a correlation



Scale: 1" = 1'

FIGURE 2: Soil Profile, Square One, Semiwite Lake Site - 1.

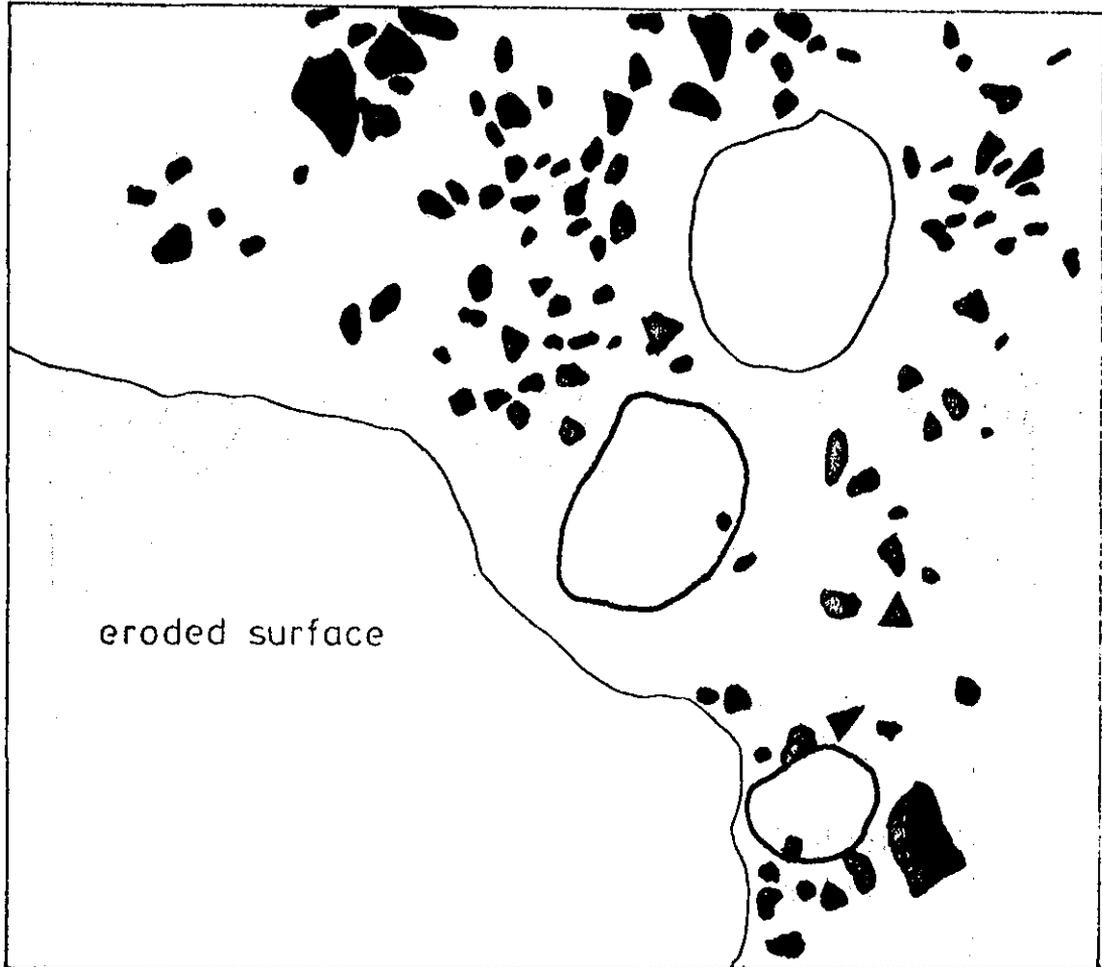


FIGURE 3: Floor plan of Square One, Semiwite Lake Site - 1.

Key

▲ fire cracked rock

— pits

— disturbed area

Scale: 1" = 1'



based on one flake may appear optimistic, it is predicted that further investigation will reveal that the Terminal Woodland occupants of the Renard Site (Betulli, Kilpatrick) were the same people who occupied the Semiwite Lake Site.

Acknowledgements

It goes without saying that report writing is just one part of any archaeological project and that full credit is due to all members who participated in this project.

In this regard, the following people and institutions have played a key role: Russ Wood; Cal Osborne; Glen Connel; Andy and Mrs. Bleanger of the Ministry of Natural Resources who supplied food, shelter and transportation; Professor H. Devereux of Laurentian University who initiated the project; and to the undaunted volunteers, Brian French, Ann Reid, Cam Buchanan, Mike Wood, Rachael and Ken Luopa a very special thanks; and last, but not least, Margret Bertulli who drew the illustrations and provided the incisive comments to make the report readable.

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REPORT ON THE LONDON CHAPTER FIELD TRIP TO OHIO, U.S.A.

by

Rodolphe David Fecteau

Museum of Indian Archaeology
University of Western Ontario

The London Chapter field trip to Ohio, U.S.A. on October 22 and 23 was eventful and educational. In a spectacular autumn setting, we explored large prehistoric earthworks and a flint quarry; capping our tour was a brief visit to the site of a Wyandot Mission. Both days were sunny and warm, which enhanced the vegetation splendour of the Ohio Valley and make our tour a memorable one.

On the night of October 21st, forty-seven people from fourteen cities in southern Ontario had gathered in the parking lot of the Ministry of Culture and Recreation in London; with a full complement of "tourees", we boarded an Erie Coach Lines bus and "headed south". Tour co-ordinator Norah McWilliam acted as our tour guide, Bill Fox and Charlie Garrad gave field lectures, Ian Kenyon and Paul Strome documented our field trip on film. Larry Foster, our bus driver, skillfully navigated the 1007-mile round trip over some roadway that was precipitous, to say the least, and over "skimpy" bridges with ease.

Our itinerary included overnight stops at Dayton and Portsmouth and visits to six sites. On Saturday we visited Fort Ancient, a 100-acre, high-walled hilltop enclosure built by the Hopewell Indians and the Serpent Mound, an embankment of earth nearly a quarter of a mile long, representing a gigantic uncoiling serpent. Our Sunday journey took us to Mound City, a 13-acre rectangular earth enclosure, surrounding 23 burial mounds and a large central mound, and to Flint Ridge, an irregular range of hills made of flint from which prehistoric Indians quarried for 10,000 years. In Newark we visited a large circular ceremonial earthwork constructed by the Hopewell Indians. As we completed our tour and turned homeward, we made an unscheduled stop in Upper Sandusky to visit a Wyandot Indian Mission, the first officially-recognized mission of the Methodist Episcopal Church in America.

A museum at each site detailed the construction of the monumental architecture and lifeways of the early Ohio Indians. The sites we explored and learned about provided us with a fascinating and interesting journey into Ohio's past.

* * * *

Further News from the London Chapter

A lengthy discussion of recent archaeological field work in northwestern Ohio was presented by Dr. David Stothers on November 10. Dr. Stothers began by describing the atmosphere of cooperation in archaeological research which exists between professionals and amateurs in the Toledo area. The advantages of such a situation were made abundantly clear as he proceeded to describe the massive volume of research accomplished despite limited government and university funding over the last three or four years. Several hours were spent in describing northwestern Ohio cultural manifestations from Late Archaic to Late Historic times, and a variety of excellent colour slides helped to describe such sites as the amazingly rich Late Archaic Williams cemetery. Interestingly, the latter appears to be closely related to the Hind site in southwestern Ontario, excavated by Wortner and Donaldson.

The next general meeting of the Chapter will be held at 8:00 p.m. on Thursday, December 8, 1977 in Room 344 Talbot College, University of Western Ontario.

Our guest speaker will be Dr. Dean Knight of Wilfred Laurier University, Waterloo, Ontario. Dr. Knight's topic of discussion is "The Montreal River and the Shield Archaic".

At 7:30 p.m. Saturday December 17, 1977 our Chapter is having an informal Christmas buffet at 55 Centre St., London, Ontario in the offices of the Historical Planning and Research Branch of the Ministry of Culture and Recreation. Mr. Paul Strome, an anthropology student of Waterloo University, will present slides taken on the recent London Chapter tour of mound sites in Ohio, U.S.A.

Good news from the Chapter executive - Mr. Charles Nixon, President of the London Chapter of O.A.S., has been informed by the Toronto Historical Planning and Research Branch of the Ministry of Culture and Recreation that \$3,200 has been allocated to the London Chapter in support of the newly formed South-western Ontario Archaeological Officer Program. Mr. Nixon will be responsible for the administration of the new funding source. This contribution will add a new dimension to the role the Chapter will play in the development of archaeology in southwestern Ontario.

* * * * *

Amazon's Grave is Uncovered

Soviet archaeologists have uncovered the grave of an Amazon who was buried together with her horse, spears, arrows and gold earrings. The remains of the woman warrior, who lived in the fourth or fifth century B.C., were found near the Moldavian village of Balabany.

Globe & Mail
December 12, 1977

* * * * *

Family Finds Iron Age very hard on the Feet

A family of five has returned to civilization after a nine month experiment to see if modern-day Britons can live as the ancient Celts did in about 300 B.C. Their biggest complaint- sore feet and need of a hot bath. Peter Ainsworth, his wife Lindsay, and their three sons aged between 3 and 7 years, last April 1 traded their tweeds and toilets for crude handwoven cloaks and leaky thatched houses in an Iron age experiment for space age television. They were taken, along with 10 other volunteers, to a secret location in western England by the BBC for a one-year voyage into primitivism. However, health problems forced Nicholas to pull out, with the rest of the family, with three months left to go.

The family's only link with the 20th Century during nine months of living and working in the primitive commune was the weekly visit of a BBC camera team, use of contraceptive pills, one hour of schooling each day and occasional visits by a physician. "We would have given anything for a pair of strong Wellington boots," Mrs. Ainsworth said at a news conference. "I can't tell you how sore the Iron Age can be on the feet. The lack of hygiene worried me a great deal. I think we overdo hygiene these days, but going totally without was pretty awful. In the spring we all had ticks."

Globe & Mail

Letters to the editor

Sir:

It is encouraging to see the expanded size and increasing variety of articles appearing in Arch Notes. The summaries of the 1977 O.A.S. Symposium papers were of particular interest since my paper was included.

Unfortunately, the synthesis of my discussion of ossuary burial misrepresents much of the information which I presented and draws conclusions which are erroneous and were not made by me. In fact, the precis bears little resemblance to the paper I gave. In particular I would draw your attention to the following. I did not state that "children were another group normally excluded, although a small number were found within the Uxbridge ossuary". My statement was that on the basis of both the ethnographic accounts and archaeological excavations, the burial pattern for children seems to have been variable. Children have been found buried within longhouses and on the periphery of villages as well as in ossuaries with no apparent preference obvious to date.

Furthermore, the number of children included in the Uxbridge ossuary and what proportion of the total Uxbridge population they constitute was not indicated, since this information can only be ascertained when the Uxbridge material has been analysed. The statement that "ossuary burial was never primary" is incorrect. In fact, in several places in my presentation I stated that according to the ethnographic descriptions, the bodies of the recently dead were left intact and placed in the bottom of historic ossuaries.

If the Uxbridge ossuary had only measured 30 inches in diameter and seven feet in depth as indicated in your report, it would not have taken three summers to complete the excavation. The Uxbridge ossuary is, in fact, fairly large and oval in outline, measuring 16 feet by 13 feet just below the plowzone. At 30 inches below the ground surface, the ossuary diameter constricts to 11 feet and maintains this diameter to a depth of seven feet below the ground surface. Thus, the profile of the Uxbridge ossuary is an inverted bell shape being widest at the ground surface.

The use of burned human bone as a lining material is unique to the Uxbridge ossuary and is not typical of prehistoric ossuary sites in general as suggested in your report. There is evidence that the upper portion of the Uxbridge ossuary was lined with an organic material - possibly bark. The placing of the recently dead in the lower part of the ossuary pit is characteristic of historic ossuary burial according to the Jesuit descriptions, but is not well documented as yet for prehistoric ossuaries. Thus, your report is incorrect in stating that this trait is characteristic of prehistoric ossuary sites. However, I did indicate that the placement of the recently dead in the lower part of an ossuary pit occurs in historic ossuaries and at the prehistoric Uxbridge site. This shared trait suggests some continuity of the ossuary burial tradition between the prehistoric and historic periods.

Most importantly, the conclusions attributed to me in the last paragraph of the report are a garbled contradiction of my conclusions which were, verbatim, as follows:

"This comparison of prehistoric and historic ossuary burial practices would suggest there are several traits shared by both prehistoric and historic ossuaries, and thus, indicates a significant degree of similarity between the prehistoric and historic periods. These shared traits include

- ossuary burial of individuals who had died over an extended period of time;
- a patterned distribution of the bones with the recently dead being buried first while the disarticulated and deteriorated bones were placed in the upper part of the ossuary;
- provision of a means of access into the pit for the grieving relatives;
- the exclusion of certain individuals from ossuary reburial.

However, other characteristics of the Uxbridge site would seem more typical of the prehistoric ossuary burial pattern. These typically prehistoric traits include

- few or no grave goods;
- only partial lining of the ossuary pit with a vegetal material such as bark probably being used;
- the inclusion of cremated bone in the burial pit.

It is these three prehistoric traits which undergo a change in the historic period. The scarcity of burned bone in historic ossuaries would suggest that the practice of cremation either declined significantly by historic times or cremated bones were disposed of elsewhere. The other two traits persist but are more elaborate in the historic period and therefore, seem to have assumed a greater importance within the ossuary ritual.

Thus, the basic features of the ossuary burial tradition would seem to have persisted into the historic period with some minor alterations."

In future, I would suggest that individuals might be approached to provide their own precis if they wish. This would prevent a situation such as the above being repeated.

Yours truly,

Patsy Cook

EDITOR'S NOTE: We certainly appear to have dropped the proverbial brick on this, both in recording and in proof reading. What can we do but offer apologies to our readers and to Patsy Cook. We trust that, by publishing the above letter, we have clarified any misunderstanding that may have arisen from our report.

The purpose of our regular annual symposium reports is to bring to members who are unable to attend the symposium a brief and, we hope, stimulating rendition of what took place. We do not attempt a complete transcript - our volunteers are too few and our time is too limited. We hope that the best of the papers will eventually be published in full either in "Ontario Archaeology" or this Newsletter (e.g. see "New Data on the Cobden Astrolobe" by Clyde Kennedy in this issue of Arch Notes).

We should, of course, be delighted to receive a precis from each of our speakers

but, as members of the Executive well know, it is harder to obtain precis of talks than it is to obtain written articles - and that is difficult enough! However, next year perhaps the symposium convener will make the production of a publishable synopsis a pre-requisite for all speakers.

We would make the point that public speaking always carries the inherent danger of occasionally being misrepresented by even the best of "the media" (e.g. read the daily "Correction" column in the Globe and Mail), and that this is a real risk for which speakers, especially those rapidly expounding new facts and innovative material, should be prepared. While we make no claim to being among "the best", our track record for errors is not quite as bad as the Globe and Mail's and we hope this recent blot upon our copybook will be our last.

* * * *

Sir:

I am engaged in a study of the art of the Ontario Iroquoians (primarily the Huron). I would appreciate hearing from readers who have collections of smoking pipes and/or other archaeological material representing humans and animals.

Zena Pearlstone Mathews, Ph.D.,
58 Van Horn Street,
Demarest, New Jersey 07627

* * * *

Weekends in the Soil

"Weekends in the Soil" by Edward L. Lenik, is immediately available at \$4.50. It is a new handbook for the would be historical archaeologist, written in simple, concise, illustrative terms. 96 pages with index and selected bibliography. 25 maps, tables, diagrams and drawings, 25 plates. Soft cover.

Order from: The Archaeological Society of New Jersey
Humanities Building,
Seton Hall University,
South Orange, New Jersey 07079

* * * *

NEW DATA ON THE COBDEN ASTROLABE*

by

Clyde C. Kennedy

"He (the wise and cautious mariner)
should know if his instruments are
accurate...."

Samuel de Champlain, 1632

In a paper presented at the Ontario Archaeological Society Symposium "Ethnohistory and Archaeology", October 15, 1977, I included comment on the accuracy of the Cobden astrolabe and reported that I had discovered certain curves and marks engraved on the face of the instrument (Kennedy, 1977).

This note will record the new data, which should be regarded as preliminary, for it was obtained mainly from a collection of photographs of the astrolabe, a method which obviously lacks precision, and the study is continuing. In some respects, furthermore, this note is inconclusive and the assistance of people trained in astronomy has been sought.

Twenty years ago, I visited the museum of the New York Historical Society (present owner of the instrument) in New York to see the astrolabe reported to have been found near Cobden, Ontario, in 1867, the year of Confederation (Russell, 1879; Macnamara, 1919; Biggar, 1925; Sebert, 1967; Kennedy, 1970; Heidenreich, 1976; Gridgeman, 1977).

The astrolabe was in a glass case and a small card indicated it had been found in "North Renfrew County, Quebec". I took this very calmly and sought out a member of the museum staff, who kindly agreed to alter the notation to "Ontario". This hospitable gentleman gave me a photo of the astrolabe and a few brief details. No one had written a detailed study of the instrument, he said.

Ten years ago, the astrolabe was brought to Ottawa by the National Gallery for its Pageant of Canada exhibition. But again, I could study the instrument only as it was displayed in a glass case.

Some ten years after that, in February 1976, Dr. David Baird, Director, National Museum of Science and Technology, arranged to borrow the astrolabe. The plan, as I understood it, was to measure it in preparation for making a replica for the Governor General. The museum staff kindly invited me to examine the astrolabe, requiring only that I put on a pair of white cotton gloves while handling this interesting "star-taker". Fred Shortt of the museum staff was the astrolabe's friendly guardian during my examination.

In addition, over the years I collected prints of every photograph that I knew had been taken of the instrument, bearing in mind that lighting would vary, as would the angle from which the shots were taken. This activity was a kind of

*Reprinted from The Ottawa Archaeologist - newsletter of the OAS Ottawa Chapter.

disadvantaged researcher's "next best thing" to more elegant opportunity.

Anyway, I recently discovered the curves from photographs dating between the one in A. J. Russell's article of 1879 and a photograph given to me by Dr. David Baird in 1976. There are numerous scratches and other marks on the astrolabe resulting, probably, from the various journeys of the instrument. They tend to distract the examiner; in photographs, the more deeply incised marks of apparent significance show up while lighter markings are filtered out, particularly in cases where photographs have been printed in publications.

My attention was attracted first by marks converging on the $23\frac{1}{2}$ degree point to the right of the zero degree point at the top of the astrolabe. That these marks would somehow relate to the declination of the sun was an obvious first thought. Other markings suggested curves could be drawn. My crude reconstruction of the curves and vertical markings at $23\frac{1}{2}$ degree points are shown on the accompanying diagram.

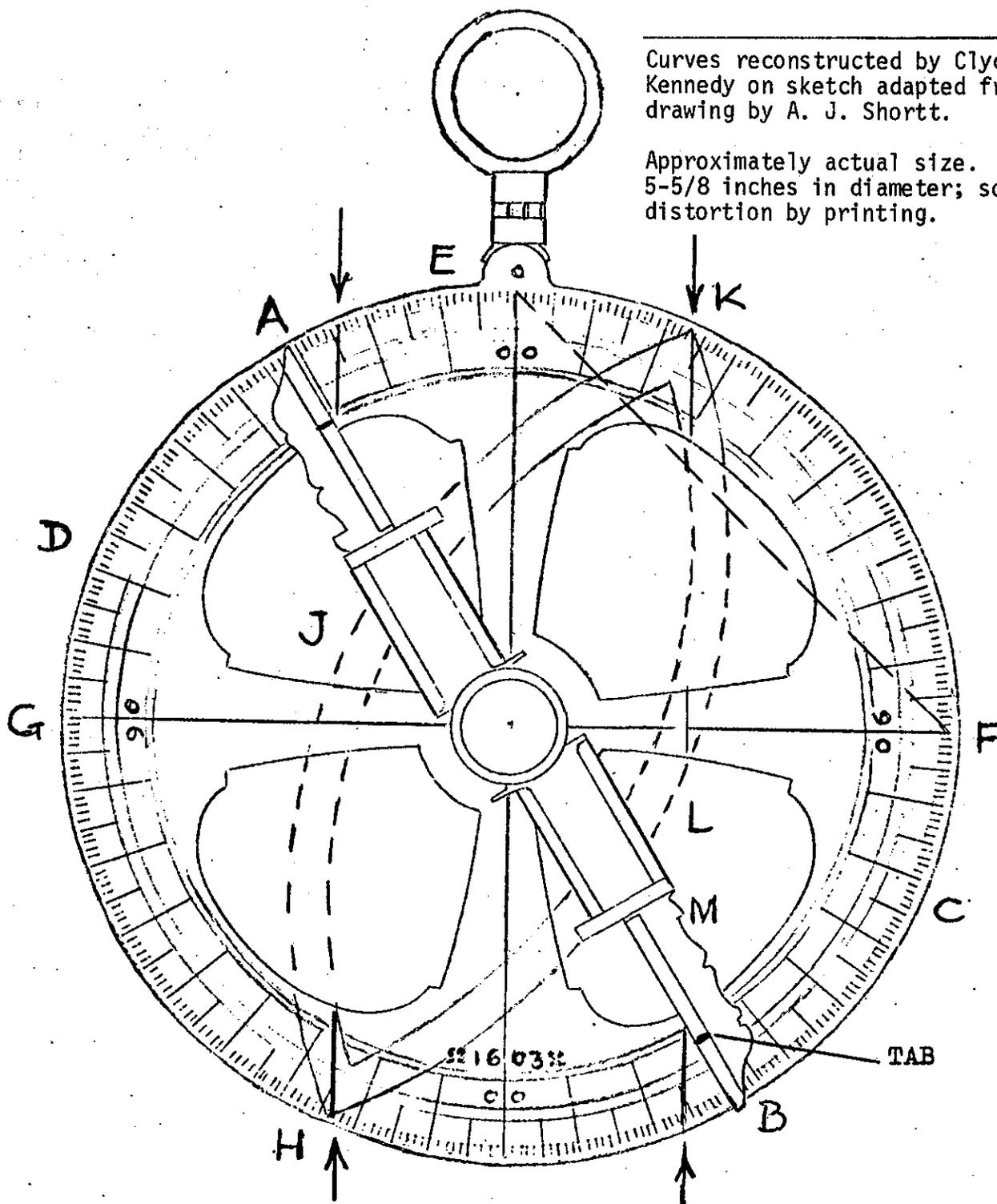
If the alidade, the moveable two-pointer arm that may be swung through 360 degrees, were calibrated against the curves with dates, the user of the astrolabe could read off the sun's declination, which he would need along with an altitude reading taken when the sun was on the meridian through his position, to determine his latitude. For rough indications, at least, this would eliminate the need to carry tables of the sun's declination.

There are several possible reasons for the lack of calibration on the alidade; prudence suggests awaiting the astronomer's comment on the curves, which could simply suggest the designer was weak in his Euclid. One reason, however, could be that the instrument does not now include its original alidade. The design (to the left of the date) placed over one curve (see diagram) could suggest that portion of the curve was not needed for readings, or that the date (1603) has been added at a later time.

Some years ago, I had noticed from Russell's 1879 photograph and more recent photographs that the tab on pointer B had moved a small distance outward from the centre of the astrolabe and that the tip of pointer B now extended a small distance beyond the outer edge of the astrolabe. This situation suggested a replacement of the alidade shown in the 1879 photograph by another one (the later photographs did not support this idea) or a modification of the alidade since 1879. The latter situation was apparently revealed by an X-ray photograph taken for the National Museum of Science and Technology early in 1976 (Gridgeman, 1977). A tiny pin has been placed in pointer B to mend a break, at M in the diagram. This mend was skilfully made; I did not detect it when examining the astrolabe.

There now is one degree difference in the readings given by the two pointers. The degree markings around the circumference of the scale circle (radius 2.8125 inches) vary in size; the width of the degrees between 44-45 and 45-46, and between 64-65 and 65-66, for example, differ by as much as 15 minutes. A straight edge placed across a diameter of the astrolabe appears to indicate a difference of about one degree.

The brass instrument is about one-eighth inch thick at the top and three-eighths inch thick at the bottom, to provide more stability in a breeze (Waters, 1958; 214, quoting Blundeville, 1594). This arrangement places the plane of the scale circle about one degree off plumb, thus introducing a small error.



Curves reconstructed by Clyde C. Kennedy on sketch adapted from a drawing by A. J. Shortt.

Approximately actual size. 5-5/8 inches in diameter; some distortion by printing.

Reconstruction of curves recently discovered on the astrolabe reported to have been found near Cobden, Ontario, in 1867. Using a radius equal to the chord EF and a centre at C, $23\frac{1}{2}$ degrees below the horizontal GF, the arc HJK may be drawn, each end of the arc reaching the astrolabe scale at a $23\frac{1}{2}$ degree mark. Using the same radius and a centre at D, $23\frac{1}{2}$ degrees above the horizontal GF, the arc HLK may be drawn. The same centres may be used to make the interior arcs, but the source of the radius is unknown as yet. Vertical lines, indicated by arrows, project from the degree scale at the $23\frac{1}{2}$ degree points on either side of the astrolabe vertical. Pointer B of the alidade is longer than pointer A and has been mended at M. The small tab on pointer B is further from the centre of the astrolabe than is the tab on pointer A.

Heidenreich (1976) made a detailed study of the latitudes recorded by Champlain in his journals and on five of his small-scale maps (total sample size: 307) and comments: "Finally, can anything be deduced about the instrument with which Champlain made his phenomenally accurate observations of latitude? It was an instrument he felt he could read to the nearest five or fifteen minutes. In fact, his observations show that his instrument was good to the nearest ten minutes and perhaps better, depending upon the declination tables he used. Such accuracy rules out the famous 'Champlain astrolabe' found near Cobden, Ontario, in 1867." Heidenreich refers to Waters (1958:57) who comments: "... the development of the cast brass model, completed by the middle of the sixteenth century, turned it (the smaller sea-astrolabe) into a useful instrument. Even so the navigator preferred to go on shore and use it there if he wanted to be sure of his latitude to within half a degree". (For a description of the more complex planispheric astrolabe, see North, 1974.)

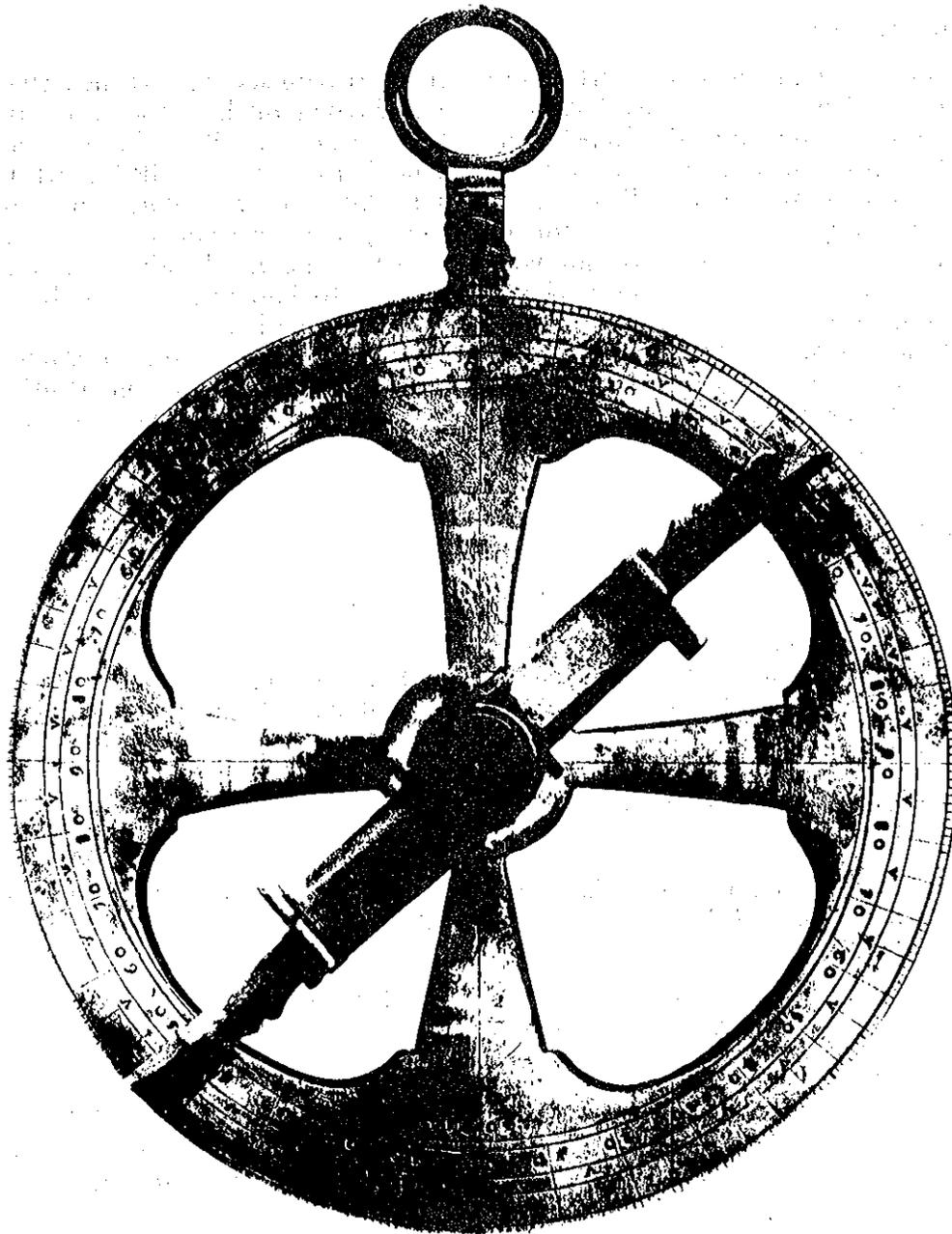
Champlain may have used different instruments at different times, of course (see Heidenreich, 1976:54, for a discussion of Champlain's inland observations). Champlain's three latitude observations taken during his 1613 journey up the Ottawa River include quite accurate observations near Montreal Island (error of about 5 minutes) and near Chaudiere Falls, Ottawa-Hull (error of about 13 minutes) plus a quite inaccurate observation (error one degree, six minutes) in the Chenaux Rapids region, some 50 miles upstream from Ottawa (Kennedy, 1970:83).

With respect to most of Champlain's observations, Heidenreich (1976:54) concludes: "The instrument used by Champlain was probably a large mariner's astrolabe. These were one to two feet in diameter and accurate to about 10 minutes."

Thus Champlain made two observations seemingly too accurate to be obtained with the Cobden astrolabe (most students of astrolabes of this type suggest the limit of accuracy, because of its small size, to be 30 minutes). The third reading at Chenaux Rapids could be the result of carelessness, a strong breeze or swarms of mosquitoes -- but Champlain stuck to the reading when he drew his 1613 map. The map, however, includes only a crude representation of the Upper Ottawa. On a 1616 map attributed to Champlain, the error at Chenaux is only 26 minutes. This may be because he got a better reading during his second trip along the Ottawa River, in 1615-1616.

There is no evidence that Champlain lost an astrolabe near Cobden; it could have been lost by a Jesuit (Kennedy, 1970:8-9, 71-84). In any case, the early history of the Cobden astrolabe is rather hazy, as Gridgeman (1977) suggests in referring to "the obscurity of the early records" -- in spite of Russell's article of 1879, twelve years after the astrolabe is supposed to have been found near Cobden, and Macnamara's 1919 interview of Edward George Lee, who told Macnamara he found a "compass" nine or ten inches across, 52 years previously.

Charles Macnamara of Arnprior, who was a clerk for the McLachlin Bros. lumber company, was a careful, painstaking recorder of the world about him. In his 1919 article Macnamara tells us that Lee indicated that "he had never seen it or any reproduction of it since (1867)". It would have been useful if Macnamara told us he got Lee to identify a photograph.



The Cobden astrolabe, a marine instrument widely believed to have been lost by Samuel de Champlain during his journey up the Ottawa River in 1613. The outer degree scale circle has a radius of 2.8125 inches; the outside diameter of the astrolabe is 5-5/8 inches. (This photograph is "close-cropped", thus nicking off the end of pointer B, which is at lower left.) The two vertical "vanes" on the alidade have both sighting slots and sighting holes for taking sights on the sun, at noon, and the Pole Star to obtain the latitude.

Acknowledgements:

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REMAINS OF MACEDONIAN KING FOUND*

Father of Alexander the Great

SALONICA, Greece: The remains of King Philip II of Macedon, father of Alexander the Great, have been found in a solid gold chest in a tomb unearthed in northern Greece, a Greek archaeologist said yesterday.

Archaeologist Manolis Andronikos of Salonica University said artifacts in the tomb and five carved ivory busts of King Philip, his wife Olympiada, his son Alexander and Philip's parents prove "without a doubt that this is King Philip's tomb".

King Philip was assassinated in 336 B.C. while preparing for war in Persia, and was succeeded by Alexander, then 20.

Mr. Andronikos led the archaeological team that discovered the marble door to the long-sought tomb earlier this month, buried deep beneath a narrow street in the village of Virginia, 7½ miles from the town of Veroia. The tomb had remained sealed for 2,300 years. U.S., British and German archaeologists were summoned to the site to assist their Greek colleagues in examining the treasures.

Mr. Andronikos said the remains of the Macedonian king were found in an engraved gold chest resting in a marble sarcophagus. The sarcophagus was surrounded by sculptured silver vases and rested in the centre of a 17-foot high room in the main chamber of the tomb.

He said other conclusive evidence to back up the claim that it was King Philip's tomb included the presence of the remnants of a royal panoply of blue cloth decorated with feathers, which stood over the marble sarcophagus.

Other royal artifacts were also unearthed, including the king's gold-rimmed body armor, a shield with the emblem of Macedonian kings on it, and the remains of his royal spear.

"The spear had been placed against the wall," Mr. Andronikos said, "and as the wood disintegrated the iron head became stuck in the tomb wall and is still lodged there."

Archaeologists also discovered that all the artifacts found in the tomb dated between 350 and 320 B.C., further bolstering their conviction that they had found the tomb of the warrior-king. Mr. Andronikos said it was the first Macedonian tomb found that had not been broken into and looted.

Among the most precious items discovered was an adjustable royal headband made of gold and silver, placed in the corner of the main vault. Macedonian kings of that era, as statues of the time show, always wore this headband.

In the anteroom, or entrance passage to the tomb, Mr. Andronikos said, was another

* Reprinted from the Globe and Mail, November 25, 1977.

admin changes at the r.o.m.

marble sarcophagus. "Within it was another gold box containing blue cloth embroidered with gold," he said, adding that the simply-designed gold box "probably belonged to Olympiada".

Other items found included a gold laurel wreath placed with Philip's ashes, gold and silver vases, remains of the king's clothing and the five small hand-carved ivory heads of Philip, his wife, his parents, and his son Alexander. Mr. Andronikos said they recognized the heads of Olympiada and Alexander by matching them with statues discovered in the past.

* * * *

News.....ADMIN CHANGES AT THE R.O.M.

As the time draws near for the retirement of Dr. Tushingham, which takes place in 1979, steps are being initiated to phase out the Office of the Chief Archaeologist. The first such step, which has been given Board approval, is the creation of the Department of New World Archaeology. Dr. Peter Storck has agreed to serve as department head; the other members of the staff are Drs. Walter A. Kenyon, Kent C. Day and David M. Pendergast, David Findlay, David Gillespie and Peta Daniels. While the department has already begun operating as an independent unit in many respects, existing budgetary structure and some other administrative arrangements have been retained temporarily within the Office of the Chief Archaeologist.

The new department is charged with responsibility for all ROM archaeological collections and gallery displays from the Americas, and for the archaeological field research programme in North, Central and South America. Inquiries regarding the department should be directed to Miss Peta Daniels (3668/6138), who is serving as departmental secretary.

The broader functions of the Office of the Chief Archaeologist will be the responsibility of a separate organization, the Committee for Field Archaeology. The CFFA, which will report to the Associate Director Curatorial, is intended to provide an overview of the entire archaeological research programme within the ROM, and to permit resolution of problems by means of discussion among the members. In addition, the CFFA will retain general managerial responsibility for the archaeological research budget, thus providing essential funding flexibility for departmental projects. The committee will also, through its chairman, provide liaison within and outside the Museum on archaeological matters, including those research projects which do not fit easily within departmental frameworks. As part of his role as spokesman for the Museum's archaeological programme, the chairman of the committee will serve as editor of the Archaeological Newsletter.

Administration of the CFFA will consist of the Chairman and a Vice-Chairman, both of whom will serve for three-year terms. The first Chairman of the committee is Dr. Tushingham. He will be succeeded on January 1, 1978 by the present Vice-Chairman, Dr. David Pendergast, but will retain his title of Chief Archaeologist until his retirement. Prior to January 1, an election will be held for a new Vice-Chairman, who will assume duties on that date. All members of the curatorial staff who are or have been engaged in field archaeology are eligible for membership on the committee.

* * * *

News --- National Museum of Man

Dr. William E. Taylor, Jr., Director of The National Museum of Man, has announced the appointment of Dr. Roger Marois as Chief, Archaeological Survey of Canada.

Dr. Marois was born in Montmagny, Quebec, where he received his early education. He obtained a Bachelor of Arts degree, majoring in philosophy from College de St.-Laurent, Montreal; he then studied theology and the history of religion at Scolasticat Notre-Dame de Sainte-Croix in Pierrefonds and at the University of Ottawa, receiving a Master's Degree.

Dr. Marois studied the teaching of English as a second language at St. Michael's College in Vermont and in 1968 obtained an M.A. in Anthropology from the University of Montreal, his thesis being on the archaeology of the Province of Ontario and Quebec.

Continuing his interest in the field of archaeology, Dr. Marois specialized in settlement patterns in late prehistory and early history in southern Quebec and obtained his Ph.D. from the University of Calgary in 1973.

Dr. Marois has had an interesting and varied career and speaks four languages, including Spanish and Bengali. He worked in the field of social service in East Pakistan for five years and has also been a professor of English and Mathematics in Montreal. He has participated in a number of archaeological excavations for the Historic Sites Branch of the Department of Indian and Northern Affairs and joined the staff of The National Museum of Man in 1969. Since then, he has continued his archaeological field work in the Province of Quebec.

Dr. Marois has had several articles published in scientific journals and has also published papers in the Museum's "Mercury Series", one of which is on settlement patterns in Quebec. He has produced a most useful literary tool for use by archaeologists in his French-English, English-French vocabulary in prehistoric archaeology: le Vocabulaire français-anglais, anglais-français d'archéologie préhistorique, published by the University of Quebec Press, Montreal.

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Contemporary Indian Arts and Crafts

The National Museum of Man is circulating an exhibit of contemporary Indian arts and crafts in Canada.

The exhibit, entitled simply "Contemporary Canadian Indian Art" includes paintings, prints, drawings, carvings, jewellery, beadwork, basketry, embroidery and ceramic work. The artifacts in the exhibit represent the work of individuals and groups from three major areas in Canada: the west coast, the plains and the eastern woodlands.

The exhibit will be at McMaster University Art Gallery in Hamilton until December 8, and will circulate in the New Year through British Columbia.

* * *

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FEES: Per annum-Individual \$6; Family \$8; Institutional \$10; Life \$100. Chapter fees extra.

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SIMCOE COUNTY CHAPTER...in the process of formation

MEETINGS: Probably 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.

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