

THE ANNUAL SYMPOSIUM OF  
**The Ontario  
Archaeological  
Society**

# **ethnohistory and archaeology**

**SATURDAY, OCTOBER 15th, 1977**

In the Essex Room of the Four Seasons Sheraton Hotel  
123 Queen Street West (opposite City Hall) Toronto

ADVANCE REGISTRATION (TO OCTOBER 5th): \$6

REGISTRATION AT THE DOOR (FROM 8:15 a.m.): \$8

PAPERS WILL COMMENCE AT 9:00 A.M.

## **POST-SYMPOSIUM BANQUET**

Civic Ballroom, Four Seasons Sheraton Hotel  
7 P.M. (Cash Bar from 5:30 P.M.)

**Speaker: Dr. Walter Kenyon**

\$10 PER PERSON. RESERVATION DEADLINE: OCTOBER 5th

*Advance Registration  
and Banquet  
Reservations to:  
'Symposium'  
The Ontario  
Archaeological Society  
Box 241, Postal Stn 'P'  
Toronto, Ontario  
M5S 2S8*

MEMBERSHIP IN THE ONTARIO ARCHAEOLOGICAL SOCIETY IS  
A REWARDING EXPERIENCE. BENEFITS INCLUDE A WINTER  
LECTURE/FILM SERIES, SUMMER FIELDWORK OPPORTUNITIES,  
PUBLICATIONS AND EDUCATIONAL PROGRAMS. FOR DETAILS  
WRITE TO THE MEMBERSHIP SECRETARY OR CALL 978-3673.



# ARCH NOTES

ISSN 0048-1742

AUGUST/ SEPTEMBER 1977

77-6

## Contents

O.A.S. 1977 SYMPOSIUM		POSTER
- Registration Form		Page 5
News - National Museum of Man		2
Excavation opportunities; fee increase; Ottawa and London Chapter news		3
Ontario Archaeology; monsters; press cuttings		4
The Analytic Importance of Chipping Debris - Susan M. Jamieson		7
O.A.S. September Meeting		9
Notes on the Construction of Iroquoian Cabins - Frank Ridley		10
Conference; congratulations		12
Letters to the Editor		13
	- Prof. M.A. Latta	
	- Brian Hayden	
E.S.A.F.		18
The Silver Fox - Wilfrid Jury	- John Fisher, CBC	19
Short Digs	- "Rood"	21
The Western Basin Tradition - Algonquin or Iroquois?	- David M. Stothers	22
In Search of Arctic Fauna	- Dr. Howard Savage	36
Editorial	- Michael W. Kirby	39
O.A.S. Information		40

Newsletter of

**The Ontario Archaeological Society (Inc.)**

News --- National Museum of Man

A new series of reports by the National Museum of Man, "The Yukon Refugium Project", will be published by the Education and Cultural Affairs Division of the Museum and will feature the work of line division staff; Archaeological Survey of Canada, the Canadian Centre for Folk Culture Studies, the History Division, Canadian Ethnology Services and the Canadian War Museum.

The intent is to bring to the Canadian public a more immediate update on the ongoing scholarly work of the Museum. The reports will be written for the layman and will not require specialized knowledge to appreciate the information they contain. It is also hoped they will satisfy some of the needs expressed by academics across Canada. At present these reports are being distributed free of charge.

\* \*

Distinguished Scholar Honoured by National Museum of Man

The Director of the National Museum of Man, Dr. William E. Taylor, Jr., has announced the appointment of Dr. George MacDonald the Chief of the Archaeological Survey of Canada as Senior Archaeologist, National Museum of Man. The appointment will free Dr. MacDonald from a heavy administrative burden and will enable him to devote his full attention and expertise to Canadian prehistoric research and museological matters.

A native of Galt, Ontario, Dr. MacDonald received his degrees in anthropology from the University of Toronto and Yale University, where among other awards, he was nominated by the Department of Anthropology for the Stirling Outstanding Scholar Award. He joined the permanent staff of the National Museum of Canada in 1964 as Atlantic Provinces Archaeologist following work for the National Museum of Canada, the Royal Ontario Museum and the National Historic Sites Service.

As Chief of the Archaeological Survey of Canada since 1969, Dr. Macdonald was responsible for the general direction of Canada's largest programme of research, collection and interpretation in prehistoric archaeology and physical anthropology. His contributions to the field of knowledge of Canadian archaeology are extensive and significant. He has provided leadership in such major programmes as the Debert Paleo-Indian Project, a multi-disciplinary investigation of the oldest community in Canada; the North Coast, B.C. Archaeological Project, a long-range study of the cultural history of the Tsimshian and Haida Indians; and the Rescue Archaeology Programme, designed to protect native heritage resources from destruction by urban spread and technological development. His experimental development work has included, for example, the initiation of the first programme of waterlogged site archaeology in Canada in the Prince Rupert Harbour of B.C.

Dr. MacDonald has published extensively, is actively involved in the direction and production of films for study and teaching purposes, and has been a major force in the creation of the Museum's permanent exhibits, travelling and regional displays. He has served as President of the Canadian Archaeological Association and on the executive of the Society for American Archaeology and the Archaeological Institute of America, and he acts as a consultant to a variety of federal and provincial agencies in the area of archaeology.

\* \* \*

## VOLUNTEER EXCAVATION OPPORTUNITY

Volunteers for screening and shovelling areas of disturbed plough zone earth under supervision will be welcome on a site near Collingwood for several weekends in September and October.

Volunteers must have own transportation and necessities, equipment will be provided. This is hard work in clay soil. O.A.S. members preferred. Camping (primitive) available on the site for the hardy but people from Toronto can easily get back home the same day. If interested in volunteering for a day or longer contact Chas. Garrad 223-2752, Norma Knowlton 924-7272 or Mike Kirby 223-7296.

\* \*

## VOLUNTEER SURVEYOR NEEDED

A person able to produce a contour map of a site near Collingwood is urgently needed. Please contact Chas. Garrad at 223-2752. Estimated time in the field would be one day.

\* \* \*

INFLATION HITS - - - At the September meeting of the O.A.S. (Wednesday, Sep. 21 at the McLaughlin Planetarium, R.O.M.) a proposal will be made to increase Membership Fees to a more realistic level -- General from \$6.00 to \$10.00 per annum, Family from \$8.00 to \$15.00, Institutional and Corporate from \$10.00 to \$20.00, and Life from \$100.00 to \$200.00 -- increases to be effective from November 1, 1977.

\* \* \*

Regrets --- that Marti Latta, through pressure of work, has had to resign as Programme Convenor for the O.A.S. The Executive are now seeking applications for this position from interested members.

\* \* \*

OTTAWA - - - the Ottawa Chapter of the O.A.S. has re-elected its 1976/77 Executive for 1977/78 with no change. Chapter fees have increased to \$4.00 from \$2.00 (Student membership is now \$2.00 and Family membership \$6.00). Shawn Haley has stepped down as Editor of The Ottawa Archaeologist to attend Trent University in Peterborough - - new Editor will be Clyde Kennedy.

\* \* \*

LONDON - - - the London Chapter of the O.A.S. enjoyed a barbecue-picnic on July 16 at Longwoods Conservation Area. This included a tour of the Ska-nah-dohht village reconstruction and a flint knapping display presented by the Lower Thames Valley Conservation Authority.

The Chapter is now arranging an Ohio Archaeological Tour for the weekend of October 22-23. The proposed cost of \$55.00 per person covers transportation (from London), two nights motel accomodation and entry fees to all parks and museums. Itinerary includes visits to Fort

Ancient, Serpent Mound, Mound City National Monument, Flint Ridge and Newark Museum.

If you're interested contact Bill Fox (at 437-8401 or 673-0966 in London) as soon as possible.

\* \* \*

"Ontario Archaeology" - - - Included with this Arch Note's mailing is your copy of ONTARIO ARCHAEOLOGY #27 plus the corrected 'contents' page for the previously issued ONTARIO ARCHAEOLOGY #28.

\* \* \*

MONSTERS - - - The first academic conference on monsters will be held at the University of British Columbia in May of 1978. The Museum of Anthropology says the conference, entitled Sasquatch and Similar Phenomena, will concentrate on presenting evidence available on the legendary creature of the Pacific Northwest, known in the United States as Bigfoot. The visiting scholars will also examine other monsters such as the cannibal Wiitiko of the Algonquin Indians, werewolves and vampires.

\* \* \*

"Digging for (Arti)facts" --

Sixty-six teen-agers from Metro high schools have been developing an on-the-spot appreciation for Canadian history this summer while sifting for artifacts on the site of a 16th-century Indian village.

Besides the school credits for taking the course, students are getting what amounts to a 16-day holiday in the out-of-doors, for a total cost of \$105.00 each, which includes room and board at the Boyd Conservation Centre in Woodbridge.

The course is sponsored by North York Board of Education in co-operation with the other boards of education in Metro, together with the Ministry of Education, the Royal Ontario Museum, and the Metro Toronto and Region Conservation Authority.

Three days out of the 16 are spent actually working on the site of a village in the Kleinberg area, which probably existed between 1500 and 1560. This year the centre of interest is a house, which Bryan Snow of the ROM said was probably burned, not by marauding bands but because these early houses were built of bark that became so dry that "one little spark would be enough to burn them to the ground." Mr. Snow is archaeologist on the site.

The students are working in a field that has been part of a farm. Their work involves scraping below the plough zone and learning to look for dark spots that indicate the former presence of posts. They also learn to recognize pieces of animal bone.

"We're finding quite a bit of evidence that passenger pigeons, elk, and bear once roamed in this area," Mr. Snow said.

Kathleen Rex, Globe & Mail, August 25, 1977

O.A.S.

1977 SYMPOSIUM

ETHNOHISTORY & ARCHAEOLOGY

Speakers at our fourth annual symposium include: Bruce Trigger (Ethnohistory and Archaeology); Conrad Heidenreich (The Use of Early Maps by Archaeologists); Clyde Kennedy (Samuel de Champlain in the Ottawa Valley: Some Mysteries); Patsy Cook (Ossuary Burial: A Comparison of Prehistoric with Historic Practices); Helen Devereux (The Aboriginal Beothuk People of Newfoundland); Al Molto (Physical Anthropology and Ethnohistory); Marti Latta; William Noble.

Full details of time, place, price etc. are on the front page of this newsletter. (That page can be used as a poster if you detach it and hang it in a prominent place. Further supplies are available if you can use them - please phone Janet Cooper at (416)962-7025.)

The Registration Form for the Symposium and Banquet is below, and speedy despatch of this is advised. All are welcome. For out-of-towners who wish to book a hotel room in advance, we enclose a reservation card from the Sheraton Centre.

-----  
REGISTRATION FORM

ONTARIO ARCHAEOLOGICAL SOCIETY SYMPOSIUM ON ETHNOHISTORY & ARCHAEOLOGY

Saturday October 15, 1977 - Sheraton Centre, Toronto

NAME: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Address: \_\_\_\_\_

No. of persons attending papers (\$6.00 per person) \_\_\_\_\_

No. of persons attending Banquet (\$10.00 per person) \_\_\_\_\_

Amount enclosed: \$ \_\_\_\_\_

Make cheques payable to: The Ontario Archaeological Society (Inc.)

Send registration form and cheque to:

Ontario Archaeological Society,  
Symposium Registration,  
P.O. Box 241,  
Station P,  
Toronto, Ontario M5S 2S8

Deadline for advance registration is October 5, 1977.

Note: Advance registration MUST be made for the banquet.

PLEASE NOTE that the Symposium replaces the  
October meeting. The next regular monthly  
meeting after the Symposium will be held  
on November 16.

## THE ANALYTIC IMPORTANCE OF CHIPPING DEBRIS

by

Susan M. Jamieson

Over 90 per cent of human prehistory has been defined on the basis of lithic technology--the behaviours and related knowledge characterizing man as he modifies stone from the environment for his own use. Stone artifacts, widely perceived as those which are stylistically the most formalized, have therefore been instrumental in the reconstruction of prehistoric lifeways. Identification of the specific technological processes by which these artifacts are made has aided in the definition of regional groups in both time and space (Bordaz 1970). We thus find reference to groups using, for example, Mousterian or Folsom projectile points. The record of technological change thereby evidenced has generally been interpreted as an indicator of social or environmental shifts. Although less formalized categories of stone artifacts may also be recognized, they are seldom given detailed consideration, especially in North America.

In the New World, peoples manufacturing ceramics are distinguished from those not having or using that technological knowledge. Here, the tendency has been to concentrate upon the technology and typology of ceramics following their introduction into prehistoric sequences, and to relegate lithic studies to an inferior or even trivial position. The continuity of the past is thereby largely, and perhaps artificially, broken. Yet, the same factors of preservation and abundance hold in pre and post ceramic assemblages: stones suitable for modification into tools are highly resistant to chemical and physical weathering, and lithic tools are broken, worn out, or misplaced by their users, necessitating frequent replacement (Faulkner 1972:1). This failure to consider lithics in the same detailed manner as ceramics has greatly reduced available information, but more importantly, has led to the attitude among some archaeologists that only the most formalized tools are worthy of analysis, and consequently it is only they that need be preserved from archaeological sites. Nowhere is this more true than in Southern Ontario.

This viewpoint is fallacious: formalized tools are the end products of a reduction sequence, the final stages of which only are reflected in the finished form. If we do not comprehend the reduction sequence, we are not likely to do justice to any analysis of the final form. Furthermore, concentration upon formalized tool types can lead on to the erroneous conclusion that a specified form is always produced in the same manner. This is not the case (Bradley 1975). Too, it is now known that some prehistoric peoples deliberately set out to produce flakes, and that these in unmodified or slightly modified form virtually constituted their entire tool kit (Stoohert 1974:4). Indeed, butchering experiments have demonstrated unmodified flakes to be the most useful tool for all but the heaviest cutting and chopping (J. P. Green, pers. comm.). The author has observed that unmodified flakes form a significant percentage of tools recovered from boreal forest sites in Northern Manitoba, that these are often removed from relatively unprepared or bipolar cores, and that a bifacial reduction technology is also present. It is suspected that the combination of technologically simple and complex reduction techniques may also hold for other groups within the Algonkian area, and may even extend to northern Iroquois groups.



Recent experimentation and observation of extant aboriginal knappers has shown that the manufacture of stone tools is culturally, environmentally and individually determined (for example, see Muto 1971; Newcomer 1971; White and Thomas 1972; and Gunn 1975). Each artisan brings to the task of stone tool production his cultural heritage and his own individual motor skills. Given that stone working is a subtractive technology and that mistakes are not readily corrected (Deetz 1967:48), we may thus expect to find patterns of behaviour reflected in all lithics. These patterns reflect, in turn, an underlying cognitive or cultural structure of the group in question. While there is evidence that group behaviour patterns can be retrieved from lithics, at least as far as they pertain to lithic reduction, they are of a highly complex nature and as yet are poorly understood (White and Thomas 1972:304-305).

At any site where stylistically formalized, typed tools are found, unretouched flakes, retouched flakes, chips and cores constitute from 50 to 90 per cent of the total lithic sample (Bordaz 1970:45). Although frequently regarded as non-diagnostic, such debris is important in reconstructing the manufacturing process, as it alone is indicative of all stages in the manufacture of complex stone tools (Muto 1971: 4-5). That is, these materials form the basis for the analysis of lithic technology or technologies. Recent advances both in theory and methodology applicable to their study mean that we now have the wherewithal to discover why stone artifacts change in form over time, a more logically secure basis on which to type artifacts, and the means by which additional site information can be elicited. For example, Frison (1968) was able to combine his knowledge of lithic reduction processes with that of wear analysis to gain much valuable information. He remarks:

At the Piney Creek site, as much or more information, concerning the activities performed there, was derived from retouch flakes as from the tools. . . In other words, in this particular context, the tools themselves did not provide the basis for valid interpretation which the retouch flakes did provide (Frison 1968:154).

A portion of Frison's argument stems from the fact that retouch flakes remain at the locus of removal, since unlike larger flakes or tools, they have no utilitarian value. While this may not be strictly the case, they nevertheless should be especially sensitive indicators of tool types and use. For this reason one must record the relative provenience of such flakes. Indeed, the provenience should be recorded for all debris, since there is no doubt about its importance nor the fact that it can be analyzed.

The analysis of chipping debris thus offers promise in eliciting prehistoric data. Despite the fact that its antecedents extend into the latter part of the last century, in present form it remains a relatively new, although by no means untried, methodology. This is not to imply that ceramic analysis should be done away with or relegated to an inferior position in favour of lithic analysis--far from it. Rather, as much information as possible given our present state of knowledge, should be obtained from both. If one accepts the systems viewpoint that internal subsystemic changes are seldom simultaneous in occurrence, then all the more reason to study both. It may well be that the detailed analysis of lithic technology or technologies will, among other things, shed new light on the transitional periods in the Southern Ontario archaeological sequences, which to date have been largely defined on the basis of ceramics. SAVE THAT CHIPPING DEBRIS!

- Bordaz, J. 1970 Tools of the Old and New Stone Age. New York: Natural History Press.
- Bradley, B. 1975 Lithic Reduction Sequences: A Glossary and Discussion. In Lithic Technology: Making and Using Stone Tools, edited by Earl Swanson. The Hague: Mouton. pp. 5-13.
- Deetz, J. 1967 An Invitation to Archaeology. New York: Natural History Press.
- Faulkner, A. 1972 Mechanical Principles of Flintworking. Doctoral Dissertation, Washington State University.
- Frison, G. C. 1968 A Functional Analysis of Certain Chipped Stone Tools. American Antiquity 33(2):149-155.
- Gunn, J. 1975 Idiosyncratic Behaviour in Chipping Style: Some Hypotheses and Preliminary Analysis. In Lithic Technology: Making and Using Stone Tools, edited by Earl Swanson. The Hague: Mouton. pp. 35-61.
- Muto, G. R. 1971 A Technological Analysis of the Early Stages in the Manufacture of Lithic Artifacts. Master's Thesis, Idaho State University.
- Newcomer, M. H. 1971 Some Quantitative Experiments in Handaxe Manufacture. World Archaeology 3(1):85-93.
- Stoother, K. E. 1974 The Lithic Technology of the Santa Elena Peninsula, Ecuador: A Method for the Analysis of Technologically Simple Stonework. Doctoral Dissertation, Yale University.
- White, J. P.  
Thomas, D. H. 1972 What Mean These Stones? Ethno-Taxonomic Models and Archaeological Interpretations in the New Guinea Highlands. In Models in Archaeology, edited by David Clarke. London: Methuen. pp. 275-308.

\* \* \* \* \*

O.A.S. MEETING

The first Fall general meeting of the O A S will commence at 8.00 pm on Wednesday, September 21st. Venue as usual: The McLaughlin Planetarium, Royal Ontario Museum, Queens Park, Toronto.

ALL ARE WELCOME

## NOTES ON THE CONSTRUCTION OF IROQUOIAN CABINS

by

Frank Ridley

In the last thirty years scholars studying the Iroquoians have been concerned with tracing the outlines of the houses of these people by removing top soil on village sites to expose darker stained small areas in the subsoil. Some of these stains are presumed to be the decayed remains of posts once thrust deeply into the ground as part of the construction of dwellings. It is thought by the majority of workers in the field that the Iroquoians planted two parallel lines of slender or flexible posts into the ground to the extent that the base would remain vertical as the tops of the two rows were bent and bound together forming a tunnel-shaped house frame. Bark was applied in sheets of various dimensions overlapping in a shingle pattern starting from the ground and covering the whole frame; an opening at the highest peak let in light and released smoke.

This construction concept is crude and does not concur with the statements by missionaries and others that the Iroquois were famed as builders of houses in America.

Digging in or driving down two rows of poles strong enough to bed in the earth, yet flexible enough to be bent through ninety degrees, would be a grievous undertaking, particularly on locations of hard gravel, hardpan subsoil, boulder covered sites, and would be impossible through the frozen ground during six months of winter in Huronia.

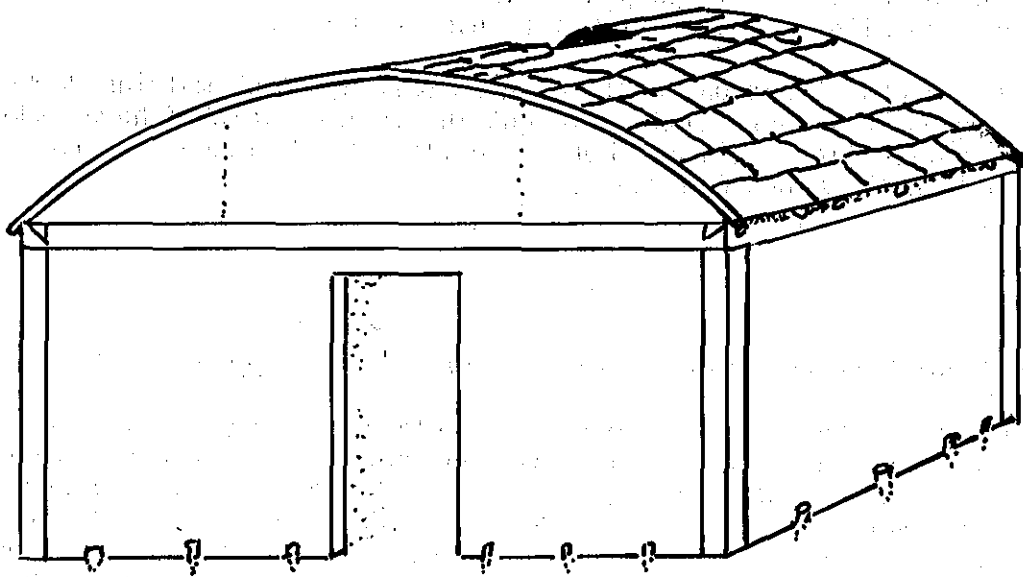
The question is, how did the Iroquoian people construct the cabins that made them famed as builders? Though Champlain and Cartier illustrated their works with sketches of houses and palisades they did not write about details of construction. Now neglected data is forthcoming in a translation of two volumes entitled Moeurs Des Sauvages Ameriquains by Father Joseph Francois Lafitau. The volumes are being translated by Dr. William N. Fenton for the Canadian Champlain Society. Fenton was kind enough to send me a copy of the section in Vol. 2 concerning house construction of the Iroquois. The construction details raise questions on the value of excavations in the search for house outlines.

The Fenton translation is as follows.

"Each lodge rests on four posts for each fire, which are the base and support of the entire structure. Pegs are planted all around, that is to say all along the two sides and two gable ends, to hold the sheets of Elm bark which form the walls, bound them with strips made of Whitewood bark-".

A following sequence continues.

"The square frame being raised, they make the roof framing with long poles bent in an arc, which they cover with sheets of bark a fathom long and one foot wide. These sheets of bark overlap like slates."



Iroquoian Longhouse Unit Construction as Described by Lafitau

Lafitau continues with a description of numerous tension elements for countering the outward thrust of the rafters under possible snow or other loads.

Lafitau describes preparation of the building materials--a long time before the date for erection. Bark was stripped from elm trees at a certain time of the year when it was easily removed. These sheets of bark were scraped, flattened, and piled compactly so they dried flat without warping. Even in this century, elm trees of two feet in diameter with trunks free of branches for thirty feet were common. Therefore sheets of flattened bark up to seven feet by twenty five feet, would span from corner post to corner post and from the eaves to the ground without a joint, giving great lateral stability to the posts. That the bark was applied with the smooth face to the weather is attested by the Jesuits mention of painted murals on the Huron houses. I assume that the rafter poles were cut when green and forced into an arc between standing trees where they would dry permanently arched in a matched group.

In this paper I have prepared a sketch to illustrate the construction of the basic house unit according to Lafitau on which I have added a component not detailed in his text. This is the timber I show spanning corner post to corner post termed by the modern builder a bent or plate. This timber is necessary to carry the rafter ends and to support the hanging wall panel. It is the only means of transferring the weight of the structure to the four posts as specified by Lafitau. These plates would be dovetailed at the corners on the posts, or tied with thongs or withes in use at the time.

I would draw the readers attention to Plate VIII, Vol. 3, of Champlains Works, which depicts a Huron cabin very similar in outline to the sketch I have made from Lafitau's specification. Similar house profiles are depicted for the Huron and Iroquois in the Codex Canadensi.

\* \* \* \* \*

Conference --- "Regional Pottery Making Traditions in Eastern North America"

Should O.A.S. members (for reasons that would be inconceivable to us!) wish to miss out on our 1977 Symposium and Banquet on Saturday, October 15, an alternative conference is taking place at Rochester(N.Y.) Museum and Science Centre, October 15 and 16. Co-sponsored by the Royal Ontario Museum and the Council for Northeast Historical Archaeology, the focus of the conference is upon variations in decoration and form of earthenware and stoneware manufactured in the 17th-19th centuries on the North American continent from Ontario in Canada down to Virginia and the southeastern United States.

Registration is now open until October 1, 1977. Fee is \$15.00. For more information, including transportation and lodging, contact George Hamell at the Rochester Museum and Science Centre, 657 East Avenue, Rochester, N.Y. 14603, (716) 271-4320. Hamell would like to hear from those interested in submitting papers on pottery technology and research methods.

\* \* \*

Congratulations --- to Dave Roberts, a life member of the O.A.S., recently appointed a Field Associate of the Royal Ontario Museum.

\* \* \*

---

# Letters to the editor

---

Sir:

In response to the letter from Dr. Bill Finlayson in the April/May ARCH NOTES I am compelled to raise two issues, and I hope that OAS members will ponder both of them.

The first is much the most important: what has been gained by these examples of professional mud-slinging? Many of the allegations, against myself and others, were petty and were couched in terms of vague innuendo, against which no defense is possible.

Both Brian Hayden and Bill Finlayson have told me that they believed that everybody was maligning them behind their backs. Whether or not this is true, it is sad to see that persons with their responsibilities and abilities have wasted so much usable time brooding on real or imagined wrongs. Let me give you an example of how debilitating this sort of thing can be:

Anyone who has ever worked in a Huron longhouse, or any other sort of prehistoric dwelling that I am familiar with, knows that residents tended to clean up the centres of the house. Whether by throwing garbage out, by shoving it against the walls, by burying it in pits or hearths, or whatever, the middle of the dwelling was trampled by many feet and pointed objects which might injure those feet were carefully dispersed. We all know, also, that the basic premise of all earth sciences, including archaeology, is the Principle of Superposition: that, barring disturbances, the oldest strata are on the bottom and all strata overlying them are more recent. Bill Finlayson has repeatedly debunked Brian Hayden's study on the grounds that a palisade and its midden ran right across Hayden's longhouse. By the Principle of Superposition, therefore, we must conclude that the midden accumulated after the house was occupied, since otherwise the midden would have been cleared away inside the house and the house would appear to cut through the midden. This being so, the palisade must represent not an expansion as Finlayson has suggested but a contraction of the village perimeter. By his own attack, Finlayson has created the following conundrum: either the house cut through the midden, in which case Hayden cannot be expected to have seen it and his work and thesis are still defensible, or else the midden overlay the house, in which case Finlayson's hypothesis of continuing village expansion is seriously weakened and his film on this subject is in error.

It is generally true that subsequent research points up errors in its predecessors, but hindsight is hardly a personal virtue. It is generally true that researchers wish their work to be as perfect as possible, but perfection cannot be subtracted from another's work and thereby added to one's own. I would hope that we may recognize the value of multiple approaches to a common problem, and that we can recognize individuals' growth by their contributions to the field of the present rather than their mistakes of the past.

As far as the second issue is concerned - that of specific failings in the 1972 excavations - a short history lesson seems to be in order. The OAS originally

proposed a salvage program to the newly established Archaeological Survey of Canada in the spring of 1972 to demonstrate our concern for the future of the prehistoric remains in the newly proposed Pickering International Airport Site. The project was directed by the Executive of the OAS and I served as Archaeological Supervisor on that Executive. Our crew of eight spent four weeks each on three sites: the MacLeod Site in Oshawa, the Boys Site in Pickering, and the Draper Site. On a total budget of \$16,300, we managed to excavate and analyze extensive samples from each of those sites, including one (or as hindsight shows, most of one) longhouse at the Draper Site plus several midden test squares. A field class, under Dr. J.N. Emerson of the University of Toronto, worked in one of the hillside middens as well; their notes are in Bill Finlayson's possession, I believe. The crew worked hard; I have extrapolated from their performance that a crew of 56 could have cleared over thirty-one such longhouses in 18 weeks. We did not use power machinery for several reasons: the small size of our budget, the fact that the site was completely surrounded by fields in cash crops so that vehicles could not reach the site, the Draper family's unwillingness to have the entire pasture disrupted since they used it for their horses, and my confessed reluctance to use such drastic measures on an undisturbed site until it became absolutely necessary.

We suffered two losses which are deeply regretted, but I doubt whether either could be attributed to any single person. The first was the sudden retirement (and subsequent death) of our senior field supervisor, Scott Horvath. The second was a grass fire which occurred on the last day of the season and which was stopped by inches from destroying the entire camp. Losses were fortunately confined to part of the field library, personal effects and - as we found out later - to part of the field notes. The entire body of settlement features and house measurements had been stored in a different location and they survived intact to be used by Peter Ramsden in his report to the ASC on the Draper work. The artifacts had been bagged by macro-grid squares, I believe, and so some provenience information remained. I suspect that it is comparable to the information provided by a bulldozed longhouse but it is still unfortunate, and I have never tried to argue that our data base was not seriously depleted by this event.

Since I had a contract to teach the following summer, I encouraged the OAS to find another supervisor and I watched with interest as Brian Hayden attempted some very interesting new approaches to longhouse analysis. As a result of his work, the OAS Executive applied for a much larger grant from the Ministry of Transport to complete the careful excavation of the site. When the grant was provisionally approved, we agreed that one individual had both the capability and experience to direct a project of such a scale. While we were attempting to implement our decision, we learned that the grant had been redirected to Dr. Finlayson instead.

During the years since 1972 I have been approached by a number of student members of the Draper Project. I have been glad to assist them in their research, and I will continue to do so because I believe they are making an important contribution to the prehistory of Ontario; we should all benefit from the completion of the Draper Project. I have given Bill Finlayson access to all the Draper materials and field notes in my possession, and he is welcome to all of them.

I listened with great interest to the symposium on the Draper Site at the recent meeting of the Canadian Archaeology Association. I learned that over 20,000 square metres of dirt have been moved at a cost of around \$325,000, this amount including computer grants-in-aid from the University of Western Ontario. A great many challenging questions were raised, and it was suggested that the Draper Project could answer them. Few answers were forthcoming, unfortunately, but I am certainly willing to wait until the analysis is complete. I would much rather see answers to those questions than engage in a pointless feud on the fine points of past

technique, theoretical or methodological, and I encourage Bill Finlayson to direct his attention to these goals.

Prof. M.A. Latta  
Dept. of Social Sciences  
Scarborough College  
University of Toronto

May 16, 1977

- - - - -

Sir:

I regret not replying to Bill Finlayson's letter (ARCH NOTES 77-4) more promptly, but I have been out of the country doing field work and only saw a copy a few days ago. His letter misconstrues several important points in my original article, and attempts to denigrate the work, reports and interpretations from the 1973 excavations at the Draper Site without cause. For clarity, I will list my objections in point form.

1. Finlayson's main strategy in replying to my article on the salvage philosophy of the National Museum was an attempt to discredit the excavation which I directed at the Draper Site and subsequent interpretations. This was neither relevant to the main points of my original article (being the equivalent of an argument ad hominem, which is logically inadmissible (Copi 1961:54-7), nor were his accusations correct. Yet once such accusations are made, they require a reply.

a) In the first place, I make no claim to omniscience, especially since much of our work was experimental. In fact, with hindsight, it is easy to see that the sampling design we used at the White Site was poorly suited to the work at hand, although with only 2-3 people at a 3<sup>+</sup> acres site it is difficult to make much of an impact in one season.

b) As to the Draper Site, I think our approach was fully justifiable. Via some convoluted logic, Finlayson has me extrapolating interpretations from the detailed analysis of one house to the entire site. This is absurd. In our proposal for subsequent excavation, we anticipated excavating and analysing the entire undisturbed portion of the site in detail. When the proposal was turned down, we simply did as much as we could with the data at hand. I am the first to admit that the results of one season's excavation at Draper with 5-6 crew members are hardly definitive given the nature of the site and the problems we were dealing with. Inasmuch as we had been "cut off" from continuing work at Draper, I and the other analysts tried to explore some of the ways the data could be used. We tried to indicate to others the directions that the data were indicating regarding our original problem formulation. If we had been given the subsequent project contract, there is no doubt in my mind that we would have produced the same map as Finlayson illustrates, only with considerably more detail and more interpretation.

c) Finlayson attempts to discredit our interpretations of social factors and detailed settlement patterning in structure 2 by showing that a palisade formerly existed at one end of the structure and by citing some instances in Iroquoian archaeology where refuse has been found between palisade rows (curiously, no instance of such occurrences were cited from the Draper Site excavations, and none of the cited examples have been published). He claims that the artifact distribution may have been skewed, and that our interpretations therefore may have been skewed. There are a number of reasons for believing that the prior existence of a palisade at part of the



house had no significant influence on house deposition or interpretations:

i) the area within the rows of the palisade was very small in comparison to the entire house area;

ii) in the area between the palisade rows outside the structure, no specialized tool kits were found, whereas in the corresponding area immediately inside the structure specialized tool kits were found;

iii) even if the area between the palisade rows and adjacent to the palisade rows are excluded from analysis, the interpretations that have been formulated and published still hold up for structure 2 (again, on admittedly limited data base);

iv) there was no indication of extraneous or prior refuse accumulation in the area of the palisade: artifact densities are higher throughout the western end of the structure and are consistent with other indications of heavier utilization of this end of the structure, e.g. higher densities of interior post holes, and larger and better developed hearths. Moreover, artifact intensities in the critical area conform to normal distributions in vertical profile, and are consistent in nature with other areas in the structure, indicating that only one deposition episode is represented. We also have evidence that objectionable deposits were removed before house construction, as represented by a truncated soil profile just outside the south wall where the ground rises slightly and had been dug away to make a flatter floor area.

Finlayson also tries to resurrect the old dichotomy between the armchair archaeologist (inadequate, superficial, methodologically inadequate, i.e. me) and the presumably practical, pragmatic, "dirt" archaeologist (i.e. Finlayson). In this case he makes claims without foundation since the single best "dirt" archaeologist that I have ever met was excavating at Draper in 1973, and subsequently became the Clwyd County archaeologist doing rescue archaeology; and I would be willing to match my own trowel to Finlayson's on any occasion (at 20 paces). I, of course, reject his above characterization completely.

In sum, there is simply no evidence that the structure 2 artifactual content or resultant interpretations were skewed because of the prior existence of a palisade in one part of the structure.

2. I was arguing that the "salvage" outlook in archaeology by its nature leads to "redundant excavations which add no new dimensions to our understanding of the past". I did not have any particular geographical or temporal span in mind, although many students who have worked for the ASC can provide first hand examples.

3. Finlayson implies that I was not interested in defining village expansion, its cause and effects. This is blatantly false. As any reading of the 1973 site report will reveal (Hayden et al. n.d.) this was one of THE areas of principal concern. I simply did not want to tear up the site for the sake of a few postholes all in one season with a small crew, preferring rather to do the job correctly over a period of three seasons with adequate funding and control. If we did not hunt down palisades, it was by choice not incompetence, as Finlayson would like his readers to believe.

4. As to the analysis, I never claimed, nor would deign to claim, that all the analyses performed with the data at hand were unique to Ontario. Some of them certainly were; and many were exploratory. As a "law-like generalization", I might suggest that no one can be entirely original in any excavation! Bowman's study in particular will undoubtedly be a classic. If I did not indulge in hypothesizing

about other settlements being in the area on the basis of her data, it is because I thought it was self evident, and because my terms of reference dealt only with the Draper and White Sites, nothing more. Finlayson tries to "demonstrate the questionable nature" of my interpretations by chiding me for not having surveyed the area after I had been removed from the scene, and after one survey of the area had already been completed. His criticism hardly seems reasonable.

5. Regarding my commitment to the area, I was asked to apply for the position of field director of the 1973 Draper Site excavation by members of the OAS. I did not submit the proposal (which the OAS drew up and submitted); I simply signed on the dotted line. Given the context, I was trying to make the best of a desperate situation in dealing with a very large and important site. As an "outsider" with no vested interests, I was quite appalled by the actions and narrowmindedness (settlement patterns = post holes) of the National Museum, and the subsequent fate of the Draper Site. I still find it incredible that any archaeologist should try to downplay the importance of an undisturbed Iroquoian site in Ontario (even if there are or may be 6 or a few more, they still qualify as few and important - and none of these have been published); and I find it equally perturbing that any archaeologist can rationalize with such facility, the bulldozing off of the "top soil" of such deposits when all the in situ, undisturbed artifacts are contained in the "top soil". Because of the way in which my commitment originated, I was unwilling to pursue the laborious development of computer programmes to statistically analyse our material by 50 cm squares without substantial backing. I might point out, however, that excavation in 50 cm squares and 3 cm levels did yield immediate rewards inasmuch as we were able to identify individual dumping events in the limited midden excavations that we did undertake.

6. I still maintain that the decision not to undertake any excavations at the Draper Site in 1974 with only two seasons to excavate the entire site was a major blunder on the part of the ASC, and a waste of valuable time, and is directly responsible for the bulldozing of much undisturbed deposit.

7. Perhaps Finlayson's article itself is a good example of the salvage mentality in operation in archaeology, where three-quarters of the text on excavation objectives deals with figuring out how fast archaeologists can destroy sites (and how much charcoal is needed to cook steaks for archaeologists) rather than what information about the past culture under study can be derived from the deposits.

8. I do agree with Finlayson that money should definitely be set aside for analysis, and I might suggest that the 1973 contract for the Draper Site was one of the few times (the first time?) that an ASC field director had set aside a significant portion of the salvage grant (about one third) for purposes of analysis. If the 1973 director had been more intent on savaging the site, more postholes would have undoubtedly been uncovered.

As to W.E. Taylor Jr.'s letter (ARCH NOTES 77-3), I have no quarrel with the general publishing policy of the National Museum. Indeed, I never even mentioned it. And if I did not make the point explicitly enough, I was dealing with the salvage programme of the National Museum, not its other programmes. My main concern was with the philosophy which makes recommendations for "salvaging" (savaging) a large, unusual, rich, undisturbed site like Draper on the basis of past excavations, done on a shoe-string budget, used to "totally excavate" a three acre disturbed site using earth moving equipment throughout to remove deposits which were encumbering the pit and posthole patterns at the site (read: settlement pattern).

I regret that Taylor did not get the point. Perhaps a rereading of the initial

article will make it clearer. Similarly, listening to some of the verbal field reports from ASC salvage projects and reading the majority of the resultant field reports might engender the realization that not all is well in the lollipop land of federal salvage archaeology.

References:

Copi, Irving. 1961. An introduction to logic. Macmillan Co: New York

Hayden, B. 1977. "Corporate groups and the Late Ontario Iroquoian longhouse". Ontario Archaeology 28:3-16.

Hayden, B. and others. n.d. Settlement patterns of the Draper and White sites: 1973 excavations. Manuscripts on file with the ASC, National Museum, Ottawa.

Brian Hayden,  
Dept. of Archaeology  
Simon Fraser University

\* \* \* \* \*

News --- E. S. A. F.

The 1977 Eastern States Archaeological Federation annual meeting will be held on November 3rd through 6th in the Hilton Hotel, Hartford, Connecticut. Sessions will include state society reports, prehistory and historical archaeology, as well as tours of nearby sites and archaeological institutions. The annual E.S.A.F. dinner will be held on Saturday at which Dr. Michael D. Coe of Yale University will speak on the Classic Maya.

For more information contact the Program Chairman - David H. Thompson, 444 Sperry Road, Bethany, Connecticut 06525.

\* \*

Publications available: Archaeology of Eastern North America is in its fifth volume and contains valuable information on environmental reconstruction of the late Pleistocene continental shelf as well as recent discoveries and discussions of archaeology of Eastern North America. Publication cost is \$6.00 to non-members and \$5.00 to members. Back issues are available; Volume 2, 3, 4 and 5 may be purchased for \$18.00. Additionally, the 1947 Anthropological Bibliography of the Eastern Seaboard (Vol.1) is being updated by Roger W. Moeller and John Reid. Volume 2 entitled An Archaeological Bibliography for Eastern North America is available for the pre-publication price of \$6.00 (deadline October 1, 1977) after which the price is \$7.00.

All publications may be ordered from the Federation business office at: Eastern States Archaeological Federation, Island Field Museum, R.D. No. 2. Box 126 Milford, Delaware 19963.

\* \* \*

## The Silver Fox (Wilfrid Jury)

by

John Fisher--July 3/77  
CBC Fresh Air

I wonder where that old silver fox is today? When I saw him three weeks ago at Fanshawe Pioneer Village in London, he said he was heading for his summer cottage at Penetanguishene, on the shores of Georgian Bay. He added "I'll be up there in June, unless I get sidetracked". Now your interpretation and mine of "being sidetracked" is not the same as Dr. Wilfrid Jury's. By "sidetracked" he means getting back to important things...and the biggest thing in his life is to show Canadians how our ancestors lived in the immediate past and long ago. In my opinion, no one has done more to enrich our knowledge of yesterday--to make it live before our eyes than this strong, short, gruff man with the silver hair. He could double for Will Rogers.

I call him "silver fox" because he has a genius for knowing where things are buried. He can almost sniff them out. Some of his summer students laugh and boast that he can see through the ground. Up until recently, he bore the imposing title: "Curator of Indian Museum of Archaeology, University of Western Ontario, London". That sounds like a position for PHD's - doesn't it? Well, the Silver Fox never went through high school--let alone university. But he and his father were avid readers...what he lacked in formal knowledge he balanced with a farm boy's uncanny instincts about land, soils, drainage and habits of people. He knew the habits of Indians, for he and his father have been probing, digging, collecting Indian artifacts for the last one hundred years. His father died a few years ago at the age of one hundred and seven, and the Silver Fox is still charging around like a mad fox at the age of eighty seven.

When I saw him and his capable wife Elsi, who is extremely knowledgeable on Canadian history, a librarian and researcher, at Fanshawe Pioneer Village, near London, and that's a smaller version of Upper Canada Village, or Black Creek Pioneer Village - three weeks ago, he was issuing orders in all directions. Most of us were short of breath following him in and out of the blacksmith shop, the Orange Hall, the old school house, the printing shop, pioneer store and his own house. He was mad because someone had painted the old printing press a bright blue - mad because they put the wrong kind of oil on the rusty farm implements - mad because one of the guides didn't know the difference between a 'stump' and 'snake fence'. He had comments about everything. You could tell the way he walked and talked that the creation of this village, representative of life in Western Ontario over the past one hundred and fifty years, was a highlight of his work. With the cooperation of the Conservation Authority of the Upper Thames River, he had selected buildings throughout Southwestern Ontario. He supervised the dismantling or hauling them intact. Into most of these buildings he put the treasures he and his father had collected for more than one hundred years....and scrounged for them.

Yes, even the house in which he was born has been moved to Fanshawe. Over his farmboy bed hangs....no - not a picture of some turn of the century belle ...he'd like that too....but an Indian skull. Even then he was collecting and carving. Wilfrid Jury, who, incidentally, was named after Sir Wilfrid Laurier, and born on July 1st 1890 is a master carver. He can make anything. Many of the models of men and machines, the complicated scale models of mills, shops and wagons were made by the Silver Fox, or his father. They even made the Indian ceremonial masks at Western.

Fanshawe Pioneer Village, near London, is something you would enjoy seeing. It is Wilf Jury's pride, but only one of them because this man who like a fox can sniff out something in the ground, has been responsible for some of the most remarkable excavations in Canada. And remember, he never finished high school--he taught himself....reading everything in sight. In World War I he was in the Royal Navy.

Back on the family farm at Lobo, near London, the University of Western Ontario became interested in his collection of Indian artifacts. Dr. Sherwood Fox, President of Western, a classical scholar who founded the French Summer School at Trois Pistoles, Quebec, had a deep interest in archaeology and especially Wilfrid Jury's ability to find things, or reconstruct them.

Wilf Jury down on his hands and knees, sweeping, whisking, sifting, probing, feeling...was the man who unearthed St. Ignace- the site of the martyrdom of Jean de Breboeuf and Gabriel Lallemant, the Jesuit priests tortured by the Iroquois in 1648. He spent nearly thirty years digging and building in the Huronia Country, where now he has his summer home. He operated a summer school of Indian Archaeology in Huronia. It was his imagination, knowledge and skill which built the Huron Indian Village at Midland, and the reconstruction of Ste. Marie among the Hurons at Midland.

Another of his accomplishments is the raising of a naval vessel of the 1812 period at Penetanguishene and the Naval and Military Establishments. The raising of that ship sure drew the crowds. He supervised every detail, cursing, muttering and appearing to be mad at everyone. Truth is, he wouldn't harm a fly.

The gruffness is a mask. Even at the age of eighty seven, inside he has the curiosity and excitement and the energy too, of a boy. He has excavated at St. Louis, Ste. Marie and at the forgotten old Moravian village at Fairfield.

Not always in Ontario - Quebec has invited him to come with his trowel, whisk, and intuitive nose and eyes, on several occasions. Wilf Jury was asked to come to Montreal by the Quebec Government. The St. Lawrence Seaway was being dug on the south shore of the St. Lawrence and they were afraid some valuable Indian artifacts would disappear. Here the Silver Fox worked, trying to keep up with the bulldozers. In two seasons he had excavated the site of St. Francis Xavier IV at Caughnawaga.

And now for the supreme tribute. Once again the Quebec authorities come to the Protestant farm boy from Lobo, western Ontario. Maybe this man with the extra sense could help Quebec unravel the mystery of where Samuel Champlain rests. No one knows the burial site of the Father of New France. Digging under cathedrals, shops, sidewalks, sewers and amid a maze of old foundations is not easy, even for the Silver Fox. He didn't find Champlain's bones, but it was an honour to have been asked. He left some valuable clues.

He didn't leave Quebec without success. He helped discover the foundations of the Jesuit Mission in Sillery. But, the Université de Montréal gave this Protestant boy from a country grade school the degree "Doctor of Letters" - so did Western!

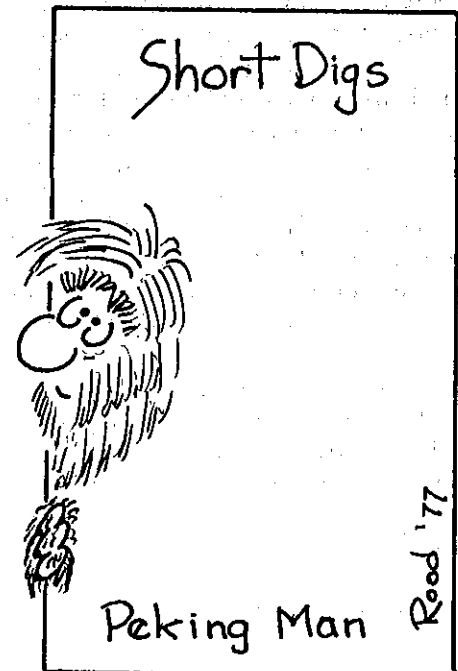
He is not only a good digger but he can build anything with his hands. He's an expert scrounger too, for he had people all over Western Ontario combing their attics. A remarkable man---self-taught archaeologist, carpenter, farmer, historian, scrounger and a raconteur formidable. When he sits back puffing on an old pipe, he prepared to have lots of time, because Dr. Wilfrid Jury has lots of Canadiana to share.

He'll tell you his secret. "John" he said to me, "I've always believed we should make history live....interesting....make a story out of it. That's why I dropped the 'hi' from history".

\* \* \* \* \*

Reproduced by kind permission of John Fisher and the CBC.

=====



# THE WESTERN BASIN TRADITION: ALGONQUIN OR IROQUOIS? \*

by

David M. Stothers  
Laboratory of Ethnoarchaeology  
University of Toledo

Introduction: The intentions of this paper are essentially threefold: 1) to outline the temporal and spatial aspects of a newly defined prehistoric cultural tradition located around the western end of Lake Erie (c.f. Map); 2) to outline settlement-subsistence patterns in addition to seasonal scheduling cycles, and how they have changed through time; and 3) to identify or suggest, if possible, the ethnic identity of the people who represented this prehistoric cultural tradition.

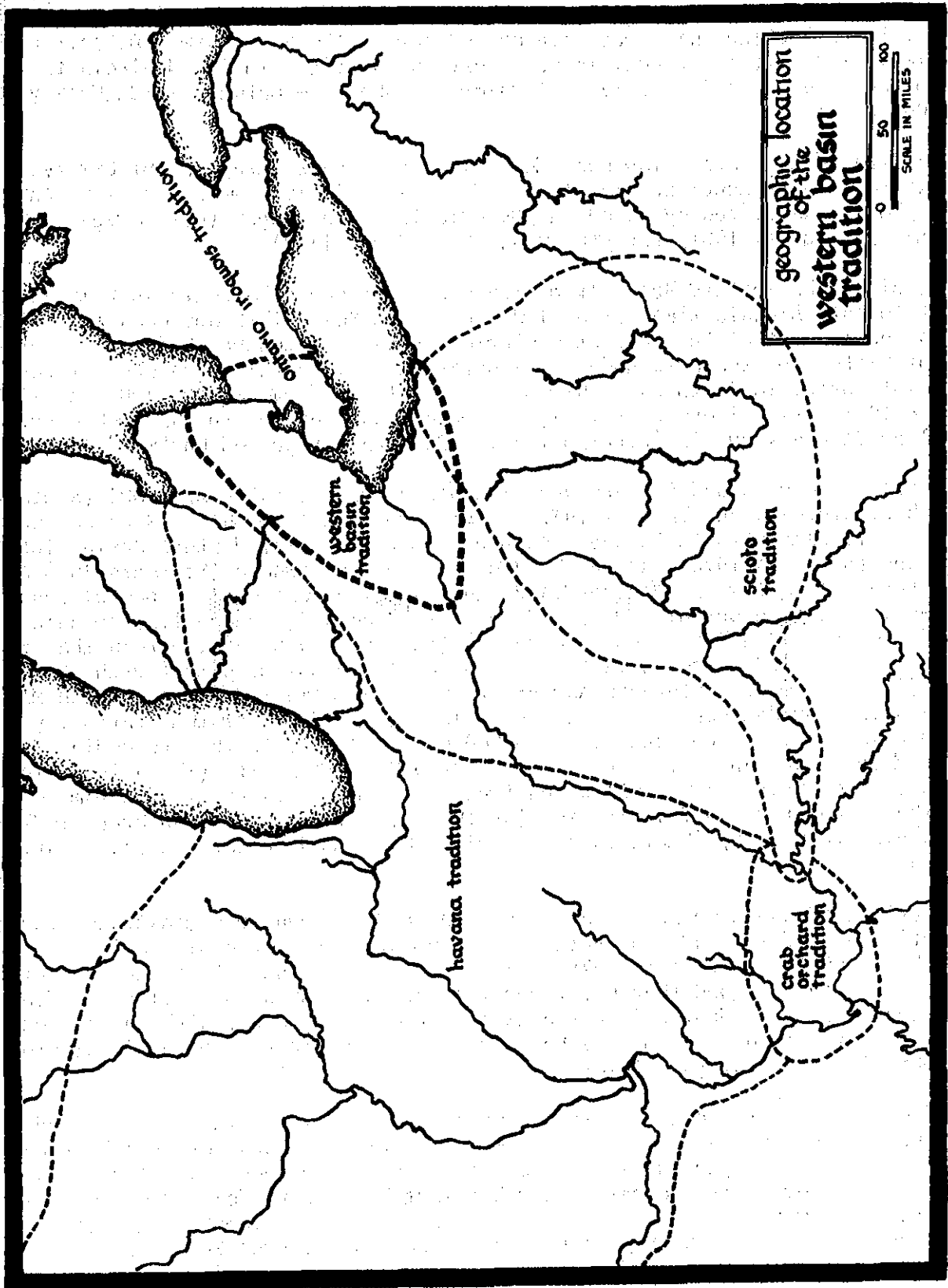
The information content of this paper is based upon many published, as well as many unpublished research manuscripts. In addition, much information has been acquired through personal communication, and lengthy discussion with many individuals (c.f. Acknowledgements), as well as through the study of numerous private collections owned by amateur archaeologists in southwestern Ontario, southeastern Michigan, and northwestern Ohio. These information sources have further supported and substantiated, as well as elucidated the geographic distribution for archaeological information that has been gained through scientifically controlled excavations.

An attempt will be made to keep internal citation and reference to a minimum, in the interests of clarity. In overview perspective, all the major intentions of this research paper are orientated toward the goal of quickly disseminating new research information to students and researchers interested in the prehistory of the study area.

Temporal-Spatial Considerations: Survey and research are still in their formative stages with respect to the geographic extent of the Western Basin Tradition. However, personal survey and examination of private and institutional collections, as well as personal communication with other researchers, both amateur and professional, in southwestern Ontario, southeastern Michigan, and northwestern Ohio, and the utilization of published and unpublished research reports have established fairly accurate and clear-cut territorial confines to an area which presents a picture of internal temporal and spatial integrity. Stated otherwise, this apparently is a reflection of a common cultural lifeway, which has persisted through time, within a 'territorial homeland'. The areal extent of the Western Basin Tradition may have been slightly expanded or contracted in comparison with the boundary lines indicated on the accompanying map. Therefore, the indicated boundary lines represent maximum territorial expanse at different periods of its lengthy and continuous existence.

The western 'frontier' of the region occupied by peoples representing the Western Basin Tradition is apparently confined to a strip of southeastern Michigan and northwestern Ohio which extends inland from the western shoreline of the St. Clair - Detroit Rivers and Western Lake Erie Basin "in a strip no more than 40 miles wide (Greenman 1958:82)" from a point midway southward along the west shore of Lake Michigan, between Port Huron and the 'tip of the thumb'. This western 'frontier'

\*Paper presented at the 26th Annual Meeting of the Michigan Archaeological Society, April 17th, 1977, at Michigan State University, East Lansing.





extends southwesterly to about Defiance, Ohio where the Maumee and Auglaize Rivers meet. The southern 'frontier' extends easterly from the Maumee-Auglaize embouchure, to the Vermillion River Valley east of Sandusky Bay (c.f. Map). Materials reflecting this tradition extend across the St. Clair - Detroit River system as far east as London, in southwestern Ontario. Included within this region are the major Erie Islands located in Lake Erie between Sandusky Bay and Point Pelee.

The entire region here being considered is one of physiographic uniformity, as the terrain is monotonously flat, and is essentially composed of sand and clay plains, deposited by receding post-glacial lake stages (c.f. Hough 1958; Chapman and Putnam 1951; Forsyth 1959; 1973; Prest 1970).

Temporally, the Western Basin Tradition can be extended backward in time at least to late Archaic times (i.e. 1000 BC - 1500 BC). This has been accomplished by the employment of the 'direct historic approach' (Steward 1942), as adapted to the prehistory of the area under consideration. Since this area was not occupied from late prehistoric to early historic times (i.e. from ca. AD 1400 - AD 1600) (Brose 1971, 1974; Stothers 1975a), the method was applied to the prehistoric Late Woodland Younge sequence (Fitting 1965, 1970), and projected backward in time.

The early Late Woodland Riviere aux Vase phase (ca. AD 500 - AD 1000) (Stothers 1975 b&c; Stothers and Yarnell 1977; Prah, Brose, and Stothers 1972) can now be very comfortably demonstrated to have emerged from the earlier Western Basin Middle Woodland (Stothers 1976), as has been pointed out elsewhere (Stothers 1975 a,b,&c). This very distinctive Middle Woodland manifestation, was earlier postulated to have probably developed out of the preceding Early Woodland, and earlier Archaic stages (c.f. Western Basin Tradition flow chart) (Stothers 1975c:45), within the area of study. Controlled large scale excavations at the Gladieux site (33-LU-10) during 1976 (Stothers 1977a; Stothers and Pratt 1977 a&b; Camp 1977; Fecteau and McAndrews 1977) have provided support to this postulation and demonstrated continuity from the Western Basin Early Woodland (i.e. ca. 600 BC - 100 BC), to the succeeding Western Basin Middle Woodland (i.e. ca. 100 BC - AD 500). This site (which is radiocarbon dated to the first century BC) demonstrates continuity in terms of ceramics (Stothers and Pratt 1977a), lithics (Stothers 1977a, Stothers and Pratt 1977b), and radiocarbon assay (Stothers n.d.), with the preceding Western Basin Early Woodland.

The Early Woodland time period has been repeatedly shown or demonstrated to be directly related to, and, in fact, a developmental outgrowth of the late Archaic (Ritchie 1969, 1955; Fitting 1975; Griffin 1964). In support of such a claim some researchers have argued that Early Woodland archaeological assemblages reflect a lifeway that was identical to the earlier Archaic lifeway, with the exception that the first crude, fired clay ceramics were added to the cultural inventory (Wright 1972:41). Wright states:

"Indeed the artificial nature of the separation of the late Archaic and Early Woodland peoples can best be illustrated by considering a hypothetical village site occupied by Archaic people who do not possess pottery. Some time during their occupation the knowledge necessary to produce pottery vessels is introduced. As soon as these Archaic villagers begin to manufacture pottery they become, as a necessary convenience for the archaeologists, Woodland peoples." (ibid).

In certain eastern sectors of the Northeastern Woodlands, continuity between the late Archaic and the Early Woodland time periods is further attested to by what has been called the 'Transitional Stage' (Ritchie 1965:149-177). The earliest phase of this 'Transitional Stage' includes steatite/soapstone vessels, in association with numerous late Archaic traits. This phase has been called the Frost Island Phase. The latest phase of the 'Transitional Stage', named the Orient Phase, includes some steatite/soapstone vessel prototypes, as well as crude, fired clay vessels modelled after the earlier soapstone prototypes. Some clay pottery during this phase is even tempered with soapstone. . . . probably derived from broken and recycled soapstone vessels (Ritchie 1965:170-173, Kraft 1974:15-16).

Other forms of continuity between the late Archaic and the Early Woodland time periods are attested to by the following list of common traits:

- 1) Ground and polished slate gorgets
- 2) Ground and polished slate birdstones, boatstones, bar amulets and bannerstones
- 3) Tubular stone 'pipes'
- 4) Common projectile point varieties in each independant region
- 5) Cremation burial utilizing red ochre
- 6) Burial mounds in some regions of the Northeastern Woodlands
- 7) Various facts attesting to elaborate burial ceremonialism
- 8) Copper and shell artifacts

These are but a few of the more generalized similarities. On a specific, regional basis, consideration of more specific and/or regionally oriented cultural attributes, argue the case for continuity from a pre-ceramic to a ceramic context, even more cogently.

The region which the Western Basin Tradition embraces (around the west end of Lake Erie), is even more specifically a case in point. This general region has many times in the past....long before the concept of a Western Basin Tradition was ever proposed or conceived of....been argued to demonstrate cultural continuity. In some cases this cultural continuity has extended considerably beyond the region of the Western Lake Erie Basin, due to a more widespread and unifying socio-cultural phenomenon such as burial ceremonialism. As early as 1948, Wilbur Cunningham and James B. Griffin (Cunningham and Griffin 1948) talked about the Glacial Kame burial cult, and how it carried across the region of the Western Lake Erie Basin to unify Indiana, Ohio, Michigan, and southwestern Ontario. The late Paleo-Indian Satchell Complex, with its distinctive use of argillite for the manufacture of artifacts, has been shown by several authors (Peske 1963, Fitting 1975, Cufu 1973, Stothers 1975d) to be distributed throughout the region of northwestern Ohio, southeastern Michigan, and southwestern Ontario, as far east as London, Ontario. The late Paleo-Indian Satchell Complex, almost certainly was not directly developmental into the late Archaic culture(s) of the Western Basin Tradition, through earlier and intermediate Archaic manifestations. The temporal hiatus between the late Paleo-Indian time period and latter Archaic manifestations was probably due to a near abandonment of the region under consideration from approximately 8000BC to 3000BC due to inhospitable ecological conditions for man (see section on Settlement-Subsistence Patterns and Seasonal Scheduling). Despite the fact that this temporal hiatus probably existed, thus excluding the Satchell Complex and earlier Paleo-Indian manifestations from

inclusion within the framework of the Western Basin Tradition, the settlement distribution of Satchell Complex peoples coincides with the later geographic distribution for the Satchell Complex may reflect the beginnings of a regional ecological adaptation, which later becomes characteristic for the Western Basin Tradition.

James Wright (1962) has correlated the distribution of the late Archaic grooved axe, hammerstone, and various slate bannerstone varieties, which occur predominantly west of Toronto, and thence throughout southwestern Ontario, with regions which lie to the south. Once again the distribution of this trait complex transgresses the U.S.A. - Canadian border, passing through the ecological and physiographic region which the Western Basin Tradition also embraces.

When one considers the Woodland sequence for the Western Lake Erie Basin, a nearly identical distribution pattern is observed.

Early Woodland sites are known from the region northwest of Long Point (the Boyd site-see section on Settlement-Subsistence Patterns and Seasonal Scheduling); the region of Grand Bend, Ontario (Stothers 1972a, 1976); and contiguous areas of Ohio and Michigan (Fitting et al 1972; Stothers 1974; Shane 1967). Little can be said concerning the character of the Western Basin Early Woodland, other than site size (and by inference, group size), lifestyle, and lithic artifacts which suggest that Early Woodland culture in the study area was basically a continuation of the Western Basin Archaic pattern, the major difference being the adoption of fired clay ceramics (op. cit.). These ceramics were thick, crude, and tempered with large coarse, granitic inclusions. Coil constructed vessels with large 'riveted' cylinder knob handles were also characteristic (Stothers 1974:1-18).

The Western Basin Middle Woodland has been described in preliminary fashion in several different places (Stothers 1976:47-49, 1975b:34-37, 1973a:27-31; Prah, Brose, and Stothers 1972; Shane 1976). This Middle Woodland manifestation is characterized by paddle and anvil (non-coiled), ceramics which are distinctively non-Hopewellian in any sense of the concept. This Middle Woodland manifestation is distributed throughout the area under consideration, and across the Detroit-St. Clair river system, eastward into southwestern Ontario at least as far as Chatham (Stothers 1976:47; Wm. Fox: personal communication).

This Middle Woodland expression has now been dated to the first century BC, and continuity has been demonstrated with the earlier Western Basin Early Woodland (op. cit.) in terms of ceramics, lithics, and settlement data. The Western Basin Middle Woodland is surrounded on all 'fronts' by Hopewellian Middle Woodland expressions, except to the east in Ontario, where Point Peninsula Middle Woodland peoples lived (Lee 1951, 1952; Stothers 1975a&b, 1976) (c.f. Map). Hopewellian manifestations to the southeast, south and west have been commented upon, or described in detail by a great number of researchers (Shane 1976; Greenman n.d.; Struever 1970; Prufer 1970; Brown 1970; Griffin, Flanders, and Titterington 1970; Fitting 1970). The distinctive non-Hopewellian flavour of the Western Basin Middle Woodland as well as its great similarity to other Ontario Middle Woodland cultures (i.e. Point Peninsula), has led Orrin Shane and myself to postulate an Ontario oriented relationship of some type (Shane 1976:12). Of course, long before information and data pertaining to the Western Basin Middle Woodland began to be compiled, or was even vaguely understood, Stothers had postulated that the Late Woodland Younger sequence for northwestern Ohio, southeastern Michigan, and adjacent areas of southwestern Ontario was another Iroquoian manifestation (Stothers 1975a&c)!

Now the entire sequence for the region of the Western Lake Erie Basin can be demonstrated to be one continuous, evolutionary and sequential 'in situ' development from late Archaic times (ca. 1000 BC - 1500 BC), until the termination of the Late Woodland Younger sequence (ca. AD 1400).

#### SETTLEMENT-SUBSISTENCE PATTERNS AND SEASONAL SCHEDULING

##### Paleo-Indian Period:

Paleo-Indian peoples who entered the region of the Western Lake Erie Basin after the recession of the last stages of the Wisconsin glaciation probably entered a region which consisted of interspersed regions of tundra-like park grasslands, and open spruce forests or what has been called Boreal Woodlands (Kapp 1977; Cleland 1966; Fitting 1975). These earliest inhabitants existed as small, mobile, 'free wandering', bands of hunters and gatherers, who were in all probability, patrilineal and patrilocal (Steward 1955, 1969; Service 1962; Lee 1968). This type of free wandering (Beardsley et. al. 1956) band society, was an adaptive response to the low carrying-capacity of a tundra-parkland environment (i.e. Chippewa Pattern) (Fitting and Cleland 1969; Fitting 1969, 1970:227-237). The longevity of Paleo-Indian culture indicates that these small bands of people lived in a homeostatic relationship with their environment. This homeostatic relationship was probably maintained by the restrictive low carrying-capacity of the environment. Stated otherwise, the resource and ecological potential of the environment almost certainly restricted both population size and complexity.

##### Paleo-Indian - Archaic Relationship/Transition:

On typological grounds there appears to be little reason to express continuity from late Paleo Indian to Archaic times (Dragoo 1962; Ritchie and Funk 1973:37-51; Fitting 1968; Ritchie 1969:212-213). In the northeast there seems to be an absence of C-14 dated Archaic cultures older than 3000 BC. This has led these researchers to postulate that unfavourable ecological conditions probably prevailed during the period from approximately 8000 BC - 3000 BC. Ritchie and Funk state (1973:38):

"The Early Archaic cultures of North Carolina, West Virginia, and other areas occupied the span of 8,000-6,000 BC when dense coniferous forests covered most of the northeast, while deciduous forests dominated the southeast. Coniferous forests, lacking most foods, are poor in game resources useful to man, in contrast to the higher carrying capacities of tundra and deciduous ecologies (Butzer 1964:137-138, 145)."

For this reason there probably was a much reduced occupation within, and utilization within, and utilization of the contiguous regions of northwestern Ohio, southeastern Michigan, and southwestern Ontario until some time around 3000 BC. Yarnell (1964:8-10) indicates that coniferous pine forests replaced the earlier spruce and grass-parkland vegetation between 8000 BC and 6000 BC, when a pine maximum was reached. Thereafter, the changing environment slowly allowed the replacement of a coniferous pine forest dominance by deciduous forests and the accompanying modern varieties of animals.

For these reasons, which have here been stated in a very simplified fashion, there was in all probability relative abandonment of the area under consideration between the late Paleo Indian peoples, and the later aspects of the Archaic time period. Only further intensive and extensive research will elucidate this problem further.

It is after this point in time (what I shall term the 'Paleo-Indian-Archaic Fault Line') that we find a major shift, to a more diffuse settlement-subsistence pattern in environments which are now characterized by a much higher carrying-capacity. Ecozones have shifted northward so that the area under consideration is now within what has become the Carolinian biotic province, predominated by warmer temperatures, deciduous forests, and abundant fauna of modern varieties.

The late Archaic within the Western Lake Erie Basin (and I suspect in most other areas of the Northeast) is marked by regional adaptation, such that bands of late Archaic peoples begin to 'settle into' (Caldwell 1958) regional river valleys, and their settlement-subsistence patterns become what might be termed 'restricted wandering'. That is, these peoples were still wandering hunters and gatherers, exploiting various seasonally variable resources, but their wandering and mobility had become restricted to a single sector of a river valley, or a tributary system. The band territory was probably loosely defined, but probably did not fluctuate in any appreciable way.

The late Archaic as well as the succeeding Early Woodland period (1500 BC - 100 BC) was marked by a continued process of these peoples 'settling into' their band territories, and becoming progressively adapted to the resources and terrain of their territory. Populations continued to increase, and as the carrying capacity of the territory of each stream or river valley began to become strained, 'daughter' bands budded off the original band (c.f. Binford 1968). These new bands moved to other river and/or stream valleys to alleviate the competition over ever-increasingly strained natural subsistence resources.

For the reasons stated above, it is believed that each river/stream valley population probably represented a self-contained and integrated cultural group. There is no doubt that cultural groups from at least as early as Archaic times interacted with each other in the form of trade and ceremonialism (Winters 1968, Granger n.d., Prufer 1970, Caldwell 1964), as witnessed in the Red Ochre Burial Cult which crosscuts large parts of the Great Lakes and St. Lawrence drainage in late Archaic-Early Woodland times, and in the later Hopewellian Interaction Sphere.

The continued fissioning or 'budding off' of daughter groups from the original population aggregates, must have continued through time. The only solutions to such a growing population pressure would have been infanticide, and/or becoming more diffuse in adaptive subsistence strategy.

Surely the former occurred, but population aggregates continued to grow as is testified by the increasing number, size, and density of cultural material on sites, as one proceeds closer and closer to the present time.

This author does not see any major change in settlement and subsistence strategy from Late Archaic times until early late Woodland times (c.f. also Munson 1976), when maize agriculture is introduced into the region of the lower Great Lakes (Stothers and Yarnell 1977). Increasing population densities must have necessitated prehistoric peoples to ever increasingly 'settle into' their ecological parameters, and to become more and more 'restricted wandering', as well as more diffuse in their adaptive subsistence strategies. This type of adaptive subsistence strategy would have led to the increasingly intense utilization of all possible resources - mammal, fish, avian, and plant. Over a prolonged period of time this type of subsistence strategy would have acquainted people with the growing cycles and propagation of certain wild plant resources. This utilization and adaptation to a variety of wild

plant resources would have 'pre-adapted' late Western Basin Middle Woodland people to the processes involved in simple agricultural pursuit (Flannery 1973:283; MacNeish et al. 1975:75-87).

#### SEASONAL SCHEDULING: THE ANNUAL CYCLE

Winters states (1969:111) that "by settlement systems we refer to the functional relationships among a contemporaneous group of sites within a single culture". Thus, to understand the settlement system and its relationship to the seasonal cycle of these late Archaic, to early Late Woodland peoples, the following quote is offered. This quote pertains to the Ojibway and Cree, contemporary hunting and gathering groups from northern Ontario. The socio-economic level of integration for these people is probably very similar to that of late Archaic and Early Woodland peoples.

"Only in summer did the members of the band usually come together for any length of time . . . With the approach of fall, the people separated, each hunting group moving to its accustomed hunting area . . . Each hunting group appears to have been quite small, being composed of two to four closely related nuclear families numbering in all, ten to fifteen people under the direction of the eldest male. The hunting group may have closely corresponded to, or been identical with, the extended family (Rogers 1963:71-72)."

As such this author sees late Archaic to early Late Woodland peoples in the region of the Western Lake Erie Basin coalescing into larger focal settlements which were riverine or lacustrine oriented during the spring and summer. At these times of the year the spring fish runs could be exploited, as could wild fowl and marsh plants. During the period of the fall, winter, and early spring these peoples, being basically hunters and gatherers, probably dispersed into the interior regions (i.e. out of river valleys and regions that are in close proximity to water) (Stothers 1974:8; 1975e:9; 1977b:122-124). In this way, these people could exploit seasonally variable resources such as nuts, berries and game animals, which would not be found in close proximity to major water bodies, or down in river valleys during the harsher periods of the year. Furthermore, larger game animals such as deer and elk avoid heavily forested regions, and thrive best in areas of secondary forest growth, on the edge of forests or in natural openings. In the fall, these animals congregate in mast producing areas (Taylor 1956:141). This time of the year (from late October to the end of November) is the rutting season for these animals (Peterson 1966:324). Thus, the dampness and rawness of an aquatic environment could be avoided by man and beast. Also, strong winds which are naturally funnelled by river valleys could be avoided, while natural resources which were at this time of year located elsewhere, could be exploited. Similarly, the early spring floods and high waters (which undoubtedly would have made many areas uninhabitable, as is the case today) could have coincidentally been avoided.

The Asmus No. 3 site (33-WO-17c) (Stothers 1975e:1-18), a late Archaic site, which disclosed a single circular house pattern about eight feet in diameter, has been radiocarbon dated to 780 BC. This site appears to represent a fall-winter inland camp, for a small dispersed family group. The Early Woodland Oak Openings No. 4 site (33-LU-33) (Stothers 1974) apparently also represents an inland fall-winter camp for a few related nuclear or extended families. However, some late Archaic sites, which are located along river banks, or in river and stream valleys on floodplains, are much larger in size and much more abundant in cultural material. The Riverside Site (DeBrock 1975) is an example of such a later spring to early fall habitation site.

The late Archaic Williams red ochre cremation cemetery (33-WO-7a), which is located

down in the Maumee River Valley on an annually flooded bottom land is an example of a late spring to early fall ritual burial site (Stothers 1973a, Stothers and Conway n.d., Stothers n.d.). This site is a large red ochre cremation cemetery, which has produced an 'in situ' slate birdstone, a stone tubular 'pipe', shell beads, projectile points, bone pins, etc. (ibid.). Radiocarbon dates for this site range from ca. 500 BC - 1000 BC (Stothers 1973a:26-27).

The cremated remains which were included in this cemetery, were not cremated at this locale (ibid.). The large size of the cemetery also indicates that it was a common ritual/ceremonial locale for several distinct nuclear or extended families, which had been dispersed during the late fall and winter, or for several local bands which occupied sectors of the Maumee River Valley, and adjacent stream or river valleys.

This author sees the following types of social units and their corresponding subsistence scheduling as having been operative during the late Archaic-Early Woodland, as well as in later Middle Woodland and early Late Woodland times:

1. Small nuclear or extended families (2-10 persons).
2. Small extractive task groups (2-10 persons).
3. Local bands (35-50 persons).

The local bands are believed to have coalesced during the period from late spring to early fall, to undertake co-operative fishing, socializing, and burial ceremonialism. During this time of coalescence several small extractive task forces may have been created from the local band membership to undertake various different activities. This 'division of labor' among different task groups allowed more to be accomplished as a result of several different activities which could be undertaken simultaneously or at slightly differing times. The benefits accrued by each task force could then be distributed throughout the local band group.

During the late fall, winter, and early spring aspects of the year, the local band dispersed into the interior in the form of small nuclear/extended family hunting parties.

#### An Agricultural Revolution: Shifting Settlement-Subsistence Patterns

In pre-agricultural times in southwestern Ontario, south eastern Michigan, and northwestern Ohio, the subsistence basis was such that people were not sedentary, but moved about periodically to exploit seasonally variable natural resources. It was learned that an easily controllable food resource was available in the form of maize, and it was also learned that in order to be at hand for care and protection of the maize crops, it was essential to become at least seasonally sedentary. Soon people realized that surplus maize production could be dried and stored for the most devastating periods of the annual cycle.

Research conducted in southwestern Ontario (Stothers 1972b, 1973b, 1975d & f, 1977b) as well as in northwestern Ohio and southeastern Michigan (Stothers and Yarnell 1977, Stothers 1975b), indicates that the Princess Point Complex and the contemporaneous Riviere aux Vase phase peoples around the western end of Lake Erie, after they had learned about, and begun to practice maize agriculture, slowly developed larger and larger social aggregates. Most sites which represent the early Late Woodland Princess Point Complex and the adjacent and contemporaneous, Western Basin Complex, and Riviere aux Vase peoples, were aquatic riverine and/or lacustrine oriented in bottomlands, swamp-marshlands, flood plains and mud flats during the late spring, summer, and early fall.

Between ca. AD 500 and AD 900-AD 1000, the above mentioned early Late Woodland





cultural manifestations slowly adapted to a lifeway which became increasingly dependent upon maize horticulture (Stothers and Yarnell 1977; Stothers 1973b, 1975b). It is proposed that the rich, aquatic oriented regions of southwestern Ontario, southeastern Michigan, and northwestern Ohio provided an ecological environment conducive to agricultural pursuit, and that, initially, limited agricultural pursuit was conducted on an elementary basis, as a supplement to the earlier, underlying Middle Woodland economic pattern of hunting, fishing, and gathering. This idea is comparable to Struever's theory of agricultural development in the Illinois Valley (Struever 1968).

After AD 900-AD 1000, population aggregates in the contiguous regions of southwestern Ontario, southeastern Michigan, and northwestern Ontario shifted out of the aquatically oriented environments, into regions of the interior. These interior regions are marked by sandy, well drained soils, which offered a better environment for prehistoric agricultural pursuit. This is why site representing the Younger and Springwells phase peoples of the Western Basin Tradition, as well as the Glen Meyer, Uren-Middleport and Pound-Lawson peoples of the western branch of the Ontario Iroquois are distributed on sandy-loam soils, which are well drained and interior oriented (Bell 1949; Fitting 1975, 1965; Wright 1966). These sites are also considerably larger in size than earlier settlements.

As such, the introduction of maize agriculture into the region of the lower Great Lakes, along with the resultant settlement-subsistence shift, is viewed as a result of long range population increases which strained the carrying-capacity of local environments. The intensive utilization of any, and all available natural resources by late Middle Woodland peoples undoubtedly 'pre-adapted' these peoples to factors and processes involved in simple agricultural pursuit.

#### The Social Ramifications of a Settlement-Subsistence Shift

It has been described in detail (Stothers 1977b:135-139, 159-167) how the advent of maize agriculture probably brought about the concept of matrilocality, permanent territoriality, endemic warfare, and a population 'explosion'.

Conway (1976:15-40) has recently shown that late Western Basin Middle Woodland societies such as those represented by the interments in the North Bass and Waterworks burial mounds, were very likely patrilineal and virilocal, while practicing female marital exogamy. Other researchers have suggested a trend to matrilineal, matrilocal, endogamous societies (Horvath 1973; Stothers 1977b; Whallon 1968; McPherron 1967), after the adoption of an intensive agricultural based economy. Therefore, residence and descent from pre-agricultural to agricultural times probably shifted from an orientation which was patrilineal, and patrilocal, while practicing female marital exogamy, to an orientation which was matrilineal, matrilocal, and endogamous.

#### THE WESTERN BASIN TRADITION: ALGONQUIN OR IROQUOIS?

The marked similarity between various Late Woodland cultural manifestations in southeastern Michigan and southwestern Ontario has been remarked on by several researchers (Stothers 1975a; Fitting 1965; Greenman 1936, 1956, 1957, 1958).

As I have stated elsewhere (Stothers 1975a:23):

"The fact that southeastern Michigan, northwestern Ohio, and southwestern Ontario remained essentially vacant until historic times when various Algonkian speaking peoples such as the Ottawa, Miami, Potawatomi, and Mississauga relocated within these areas in response to European trade (Brose 1974; Fitting 1970; Quimby 1966), has led to much speculation that

the Younger Tradition people were Algonkian speakers. Any attempt to use the direct historic approach for ethnic identification has been shown to be a futile effort (Brose 1971)."

Although certain Michigan sites have been equated with the Glen Meyer branch (Prah1 1969) of the Ontario Iroquois, and although Riviere aux Vase phase sites have been termed 'Michigan Owasco' (Greenman 1956, 1957, 1958), they are all distinct and display only generalized and superficial similarities (Prah1, Brose and Stothers 1972:6). A similar situation was once the case in southwestern Ontario - what is now termed the Princess Point Complex (Stothers 1977b:23), used to be called the 'Ontario Owasco' (Lee 1949, 1951, 1952).

I indicated earlier (Stothers 1975a:22-24, 1977b:44-46, 140-153) that there are certain striking similarities between the three sequential phases which form the Late Woodland terminus of the Western Basin Tradition (i.e. Riviere aux Vase; Younger and Springwells phases), with contemporary developmental periods in the western branch of the Ontario Iroquois (i.e. Princess Point; Glen Meyer; Uren-Middleport). Recent comparative studies have strongly indicated that these similarities are the result of much more than constant cultural contact due to geographic proximity at all time levels.

This amazing correspondence of ceramic types, and common ceramic attribute clusters, suggests ethnic affiliation. It has furthermore been pointed out (Fitting 1970:233; Zurel 1973:8) that traits most commonly associated with the Ontario Iroquoian Neutral and Huron Confederacies, such as ossuaries (as well as variants such as mass bundle burials) and longhouses, are also associated with Late Woodland phases of the Western Basin Tradition (i.e. what was formerly termed the Younger Tradition). Furthermore, settlement-subsistence patterns and their changes through time from ca. AD 500 - AD 1400 are nearly identical for the Late Woodland peoples of the Western Basin Tradition and other Iroquoian groups (c.f. Wright 1966; Tuck 1971, Ritchie 1965).

Greenman believed that the 'Michigan Owasco' (i.e. Riviere aux Vase) represented an intrusion of Iroquoian peoples into southeastern Michigan from southwestern Ontario during Late Woodland times (Greenman 1958:82-83). This idea has now been modified since the 'Michigan Owasco' can comfortably be demonstrated to have emerged from the earlier Western Basin Middle Woodland (op. cit.). In historical perspective, I can only state that Greenman must have had remarkable insight to have conceived the idea of a 'Michigan Owasco' and Iroquoian affinity for southeastern Michigan prehistoric Late Woodland peoples, as early as 1935 (Greenman 1956:7)!

Recent discussion with James E. Fitting, who originally synthesized and defined the Younger 'Tradition' (Fitting 1965), indicates that he concurs with myself, that the 'Younger Tradition' was another Iroquoian Tradition.

The end of the Middle Ontario Iroquois stage and the beginning of the Late Ontario Iroquois stage witnesses an eastward withdrawal of Middleport/Pound and Lawson manifestations, which coalesce into the Niagara Peninsula of Ontario. It is at this time (c.a. AD 1400) that the Western Basin Tradition, a long-lived Woodland Tradition appears to have been terminated and to have disappeared from the region of the Western Lake Erie Basin. It is just prior to and during this time (c.a. AD 1200-AD 1400), that two strong and intrusive Upper Mississippian manifestations appear in northwestern Ohio, southeastern Michigan, and southwestern Ontario (Zurel 1973; Leonard Kroon, personal conversation; Wm. Fox, personal communication). The encroachment of these Upper Mississippian peoples extended at least as far north as the Weiser site located north of Lake St. Clair in southwestern Ontario. One of

these manifestations, as represented at the Fort Meigs site (northwestern Ohio), is now known to represent the Whittlesey culture (Stothers 1975b:39-42; c.f. also Bettarel and Smith 1973:148, 153-154), while the other Upper Mississippian manifestation (which is considerably different), cannot at this time be positively identified with any other known manifestation, although it may represent what Greenman and Fitting termed the 'Wolf phase'. Only future research will clarify this problem.

The Late Woodland Springwells peoples are believed to have been forced out of, or to have voluntarily vacated, the region of the Western Lake Erie Basin, about AD 1400, as a result of the advent of alien Upper Mississippian culture.

Where did the Springwells peoples go? Cultural material representing the Late Woodland phases of the Western Basin Tradition (and especially the Springwells phase), are not known in regions to the north, west, or south of the territorial limits for the Western Basin Tradition. If these terminal Western Basin Tradition peoples were culturally and linguistically Iroquoian, as is very strongly indicated by their ceramics, lithics, burial style, house style, and settlement-subsistence pattern, then it would have been very easy for them to have joined their cultural and linguistic 'kinfolk', the post-Middleport peoples of southwestern Ontario, who were already withdrawing eastward. The great similarity in cultural material between the Western Basin Tradition Iroquois and their Ontario Iroquois 'kinfolk', in conjunction with acculturative effects on the material culture of the Western Basin Iroquois, would have left virtually no trace of such a 'blending' having ever taken place. However, I am certain that this hypothesis can be tested, if southwestern Iroquois researchers diligently examine remnant cultural materials from late Middleport and later Pound/Lawson sites to ascertain whether or not there is cultural material present which appears very similar to Middleport-Pound materials, but which under careful scrutiny is, in effect, 'different'.

The region of the Western Lake Erie Basin was essentially vacant between c.a. AD 1400 and early historic times (op. cit.). This raises the question, 'where did the intrusive Upper Mississippian peoples go?'. There is, at present, no satisfactory answer to this last question, although these Upper Mississippian peoples may have continued to withdraw westward to join or amalgamate with Upper Mississippian peoples of the Oneota Culture (Gibbon 1972, 1974; Glenn 1974). This is further suggested by Upper Mississippian cultural material recovered at the Moccasin Bluff site in southwestern Michigan, which is virtually identical to material recovered from Fort Meigs in northwestern Ohio, (Bettarel and Smith 1973:118-123, 148, 153-154; Stothers 1975b:39-41). Both of these Upper Mississippian manifestations are dated to c.a. AD 1400, and both have independently been equated with the Upper Mississippian Whittlesey culture (ibid).

Recently, McKenzie et al. (1973:81-85) have stated that "the Younger Tradition people were certainly not Iroquoian-speakers" and "there is some evidence that the Younger Tradition represents ancestral central Algonkin peoples (ibid.:85)." They furthermore state:

"We tentatively propose, therefore, that the late prehistoric Younger Tradition phases, including Eiden, Mixter and the Wolf phase, were the products of a series of tribes or bands ancestral to the historic Potawatomi Indians of Michigan and Wisconsin (ibid.:86)."

What these researchers do not seem to realize is that the Wolf-Eiden-Mixter-Whittlesey manifestations of the western and south-central Lake Erie regions are apparently not related in any way to the Late Woodland Riviere aux Vase, Younger and Springwells phases of the Western Basin Tradition. Furthermore, their broad, sweeping generalizations (such as those cited) are apparently based on unfounded,

unresearched, and 'fanciful' propositions.

CONCLUSIONS

For reasons stated throughout this paper, the Western Basin Tradition (which includes what was formerly called the Younger Tradition) represents a great and continuous time depth, extending back to late Archaic times. In addition, it is argued that this tradition is ethnically and linguistically Iroquoian; that it was terminated by intruding Upper Mississippian peoples; that the terminal Springwells phase peoples probably withdrew into southwestern Ontario to join their Ontario Iroquois kinfolk; and that the remaining Upper Mississippian peoples may have withdrawn westward to the regions south and west of Chicago, to leave the region of the Western Lake Erie Basin vacant when Europeans first arrived.

A shift in settlement subsistence pattern appears to have occurred in Late Woodland times, as a result of an 'agricultural revolution'. Prior to this shift, peoples at all time levels of the Western Basin Tradition had been 'restricted free-wanderers', who became ever increasingly settled into their environments and territories, and who became more diffuse and intense in their exploitation of the natural products of their environment. This exploitation was a result of increasing population density, which in turn was alleviated by the advent of an agricultural subsistence base. The new subsistence base and its attendant lifeway, probably brought about a shift in marital and residence patterns; a population 'explosion'; and endemic warfare.

\* \* \* \* \*

EDITOR'S NOTE:

Acknowledgments and References

Due to lack of space in this newsletter, we are unable to print the extensive acknowledgments and references quoted by the author, and would suggest that anyone requiring these should contact Dr. Stothers personally.

\* \* \* \* \*

In Search of Arctic Fauna - continued from page 38

Arctic fauna are well worth studying in their habitats. Sufficient diversity of species in a variety of ecological niches makes for much interest. Relating the present to the distant past by comparison of skeletal elements is an ever-increasing aspect of Archaeology and Palaeontology across the world.

\* \* \* \* \*

# IN SEARCH OF ARCTIC FAUNA

by

Dr. Howard Savage

Faunal Osteology Lab. University of  
Toronto

Since the days of the early explorers of the Canadian western Arctic (Mackenzie in the 1760s, Franklin in the 1820s, Stefansson in the early 1900s, et al.), the northern Yukon Territory and the adjacent District of Mackenzie of the Northwest Territories have been known for the fascination which they have for many people. Landscapes of tundra in many forms, a myriad of land-locked lakes of the Old Crow flats and the Mackenzie River delta, and Arctic islands up to hundreds of miles across, are so completely different to those of southern Canada as to be incredible on first sight. The native peoples of these lands are well and truly known for their friendliness, hospitality and good spirits, even in the face of physical stress and great discomfort.

The mammals, birds and fishes of this northwestern corner of North America are equally fascinating to many people from "down south" in Canada. The Muskox, Peary's Caribou, Bearded Seal, Ringed Seal, Grizzly Bear, Polar Bear, Arctic Fox, Bowhead Whale and White Whale are some of the outstanding mammal species. Noteworthy birds here are the three ptarmigans (Willow, Rock and White-tailed), Glaucous Gull, the two eagles (Bald and Golden), Yellow-billed Loon, the three jaegers (Parasitic, Long-tailed and Pomarine), Sandhill Crane, Whistling Swan, Snow Goose, Whimbrel, and a host of ducks and shorebirds. Arctic fishes, amazing for their size by southern standards, are the Arctic Char, Arctic Grayling, Broad Whitefish, Connie, and Longnose Sucker. In a short two months, all the above species or evidence thereof, as well as a host of smaller forms were seen. Only the rare amphibian, e.g. Northern Wood Frog, occurs north of the Arctic Circle; reptiles, e.g. snakes and turtles, do not live this far north.

The Northern Yukon Research Programme, under the direction of Dr. William Irving, University of Toronto, and now in its third year of operation, has excavated a very considerable volume of faunal bone specimens from both palaeontological and archaeological sites in the Old Crow flats. Radiocarbon dates on findings at Site 11A on the Old Crow River range in age from 20,000 to 40,000 years, while those on material from the Old Chief and Red Indian Creek archaeological sites are in the neighbourhood of 1,000 years. The need for reference skeletal material for identification of this excavated bone gave further impetus to collection of Arctic species not already well represented in the Faunal Osteology Lab of the University of Toronto or in the Royal Ontario Museum.

The one month's stay at the N.Y.R.F. base camp at Klo-kut on the Porcupine River was well used in confirming and extending observations re relations between rodent and shrew species and their habitats. Extrapolation of findings re present-day habitats backward to those in the Old Crow flats during the Late Pleistocene epoch is believed feasible and useful.

## ARCTIC ISLAND TRAVEL - HERSCHEL ISLAND

Since needed reference skeletal material was expected to be available on the Yukon coast and the Arctic islands, travel to these areas was planned. In mid-July, at the Inuvik Research Lab maintained by the federal Ministry of Indian and Northern Affairs, Dr. John Ostrick, the managing director, most kindly provided

a 22-foot freighter canoe and 40 hp and 25 hp Johnson motors. Fred Allen, an Eskimo guide from Inuvik, well versed in Arctic coastal travel was engaged, groceries and gasoline for two weeks were purchased, and camping gear assembled. Off Fred and I went down the broad reaches and through the delta channels of the Mackenzie River and out into Kugmallit Bay. Our course, after getting more supplies at Tuktoyaktuk, was westward through the off-shore islands and then across Mackenzie Bay. The sharp peaks and rounded contours of the British Mountains of the Yukon were direction guides until coast features could be recognized. From Kay Point, where a Geological Survey of Canada camp is located, we headed northwestward across some thirty miles of white-capped Beaufort Sea to Pauline Cove on Herschel Island.

Some Arctic fauna was seen during this travel. The surface of a relatively calm sea off the Yukon coast was broken on several occasions, to port, starboard and dead ahead by groups of water spouts several feet high, and then by large, white bodies arcing one to two feet out of the water, and moving obliquely across our course. The proximity of these schools (or gangs) of fast moving beluga whales, each probably twenty feet long and a half-ton in weight, raised the question as to which one our canoe would bang into. There were some close calls until our courses parted; probably our underwater propellor noise warned the whales off. After a 3.00 a.m. arrival and welcome at Kendall Island, there was ample opportunity to examine these whales and their skeletons on the beach. About one whale a day was being brought in by about twelve Eskimo hunters from Inuvik and Aklavik, the skin removed for muktuk preparation, and then the carcass sunk in deep off shore water.

A nesting colony of the large glaucous gulls was duly inspected. Flocks of moulting snow geese, and pairs of whistling swans were to be seen in the inlets or inland ponds, and flocks of willow ptarmigan, some half-grown, flushed from the low willow brush and hillocks of the tundra. Collared lemming and red-backed vole burrows were numerous everywhere. A deserted log building, once used for dances during the days of a settlement on the island, was inspected. Dance music emanating from this building on occasion at night and heard by some individuals, was readily accepted as from dances of the spirits. Human graves in various states of disrepair and dating from the 1920s were evident on high land overlooking the sea.

Herschel Island was even more rewarding, faunally. The warm hospitality of the one family resident on the island, and of the three archaeological field workers, headed by Brian Yorga and supported by the National Museum of Man, Ottawa, made our storm-bound days on the island very pleasant. The high content of seal bones in the middens on the beach sites from possibly Western Thule Culture times was well supported by ringed seal skeletons from last spring's seal hunts. Herschel Island, as a very active whaling centre for bowhead whales at the turn of the century, sheltered as many as 2,000 whalers during the winters. An occasional bowhead whale bone was still to be seen half-buried in the mud-banks of Pauline Cove. Rock ptarmigans and long-tailed jaegers were much in evidence. Black guillemots, which usually roost in sub-surface burrows, had adapted to roosting above the ceilings of sheds from the turn of the century. High winds and rough water presented a search along Herschel's coast-line for yellow-billed loons, the largest of North American loons. With seas calming about 1.00 a.m., a quick trip back to the Yukon mainland was possible. However, when skirting the Yukon coast with two other canoes, there was still time to pursue a bearded seal which kept popping its head out of the water to look at us, and to move in to shore to observe a cow caribou and her half-grown calf walking slowly along the beach. In all, some 500 miles of freighter canoe travel was accomplished according to the map from Inuvik to Herschel and return; how many other hundreds of miles in an up and down direction will never be known.

## ARCTIC ISLAND TRAVEL - BANKS ISLAND

Banks Island, lying across the Amundsen Gulf, some 350 air miles northeast of Inuvik, is a large land mass with but a single settlement at Sachs Harbour, well above 70 degrees north latitude. Its thriving muskox and caribou herds, and the seal and whale populations in its surrounding waters invited inspection of their habitats and a search for reference skeletons. Even an irregular air service, the absence of any place for visitors to stay, and the prospects of a sleeping bag on the tundra did not deter. However, I have yet to find a more hospitable place in which to stay. Sachs Harbour beach was strewn with the remains of ringed seals, bearded seals and arctic foxes from which the skins only had been removed. One mound in the sand contained four snow goose skeletons. From another sand mound, stumbled upon on the evening of arrival, protruded a fish net, in which (wonder of wonders!) a yellow-billed loon was completely entangled. The owner of the fish net freely donated both net and loon to the cause of science. A pomarine jaeger was found dead on the tundra near the hamlet.

Of particular relevance to the N.Y.R.P. were dried skeletons of known provenience, of muskox and Peary's caribou, the small caribou subspecies of the Arctic islands. A fortunate coincidence was the presence of a detail of the Lord Strathcona Horse, of the Royal Canadian Armoured Corps, on an arctic exercise (Captain Hugh Egener commanding). As an ex-officer of the Royal Canadian Air Force, I was made welcome at the camp mess, etc. The Strathcona detail had killed eight muskoxen under permit from the Government of the Northwest Territories, for distribution to the people of Sachs Harbour. Hence various muskox parts were available in the hamlet, if not already given to the dogs.

The truly great size of bowhead whales was impressive. The right half of a well cleaned mandible on the beach was paced at 16 feet in length; two strong-armed corps men were quite unable to lift it off the sand. An occipital skull portion could only be overturned with great difficulty. Since such large clean bone portions are often used by whale bone sculptors, enquiry to Peter Esau, President of the Hunters' and Trappers' Association at Sachs Harbour re their availability was made, and the negative reply respected. However, transportation to a bowhead, beached some nine years previously two miles out of Sachs, was most kindly provided by the Royal Canadian Mounted Police detachment there. The preservative effect of long, intensely cold winters, brief cool summers, and a tough insulating skin, four inches thick, was evident in the red colour and malodorous state of some muscle masses. Although only an immature individual at the time of its death, the proximal epiphysis of its humerus had a diameter of thirteen inches. Youngman in his 'Mammals of the Yukon Territory' (National Museum of Canada, 1975) notes: "Formerly, Eskimos, in skin-covered umiaks, used hand lances to hunt the bowhead whale along the Yukon coast". Attacking such a creature from a small craft on a heaving sea, and risking its anger and attack in turn, brings admiration for the courage of prehistoric man, if not a query concerning his foolhardiness.

CONCLUSION

In conclusion, after an all too brief month-long contact with Eskimo people of the Yukon and Mackenzie District coast, their friendliness, hospitality and readiness for fair play are outstanding. As the only white man in some camps, I was given the utmost courtesy and consideration; their assistance was almost overwhelming at times. Encouragement of their native talents and readiness to learn is most desirable.

(more on page 35)

## EDITORIAL

In this Newsletter editorials are few and far-between. As one well known Canadian editor once said "...Editorials should be written only when the Editor has something to say ...!" That time appears to have arrived; it seems our editorial philosophy has to be explained.

We thought our position was clear --- this newsletter is impartial, we do not insert our views in the articles, in the letters, in the announcements. We provide an editorial forum for our readers' views --- whether contributed by article, letter or voice. We have no axe to grind.

We believe our readers, our contributors, have a right to their opinions and that we should provide the medium for their expression. Such opinions are presented in articles or in "Letters to the Editor" and are attributed to an individual. We will publish these opinions unless they are in bad taste or exceed legal boundaries.

We believe presentation of these readers' opinions is valid, for they can provide knowledge, give new points of view, pinpoint problems, offer solutions, or correct misconceptions. All of this input can be beneficial to our readers, who are also the contributors' colleagues.

Any reader who disagrees with another readers or contributors opinion in this newsletter, has an equal right to write in, is encouraged to do so, and also will be published.

If this newsletter has an opinion to express it will do so in an editorial, such as this, or if in an article, in an attributed paragraph or manner.

This explanation should clearly delineate between when this newsletter is speaking out ( - rarely! - ) and when the contributor is expressing a view; and to emphasize that ARCH NOTES believes it has a responsibility to provide readership "forums" for its many readers.

Please feel free to comment.

Michael W. Kirby, Editor.



# The Ontario Archaeological Society (Inc.)

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

## EXECUTIVE 1977

### PRESIDENT:

Dr. Peter G. Ramsden  
R.R. #1, Alton, Ont.  
LON 1A0 (519)941-0313

### VICE-PRESIDENT:

Ms. Patsy Cook  
128 Hogarth Av. Toronto  
Ont. M4K 1K4 (416)466-5484

### PAST PRESIDENT:

Dr. Howard G. Savage  
97 Glenview Av. Toronto  
Ont. M4R 1P9 (416)485-1259

### TREASURER:

Ms. Christine Kirby  
29 Tournament Dr. Willowdale  
Ont. M2P 1K1 (416)223-7296

### CORRESPONDING SECRETARY:

Ms. Sharon Hick  
20 Balsam Av. Toronto  
Ont. M4E 2B4 (416)699-0159

### RECORDING SECRETARY:

Ms. Margaret Ann Clark  
1 Crown Hill Pl. #201  
Toronto, Ont. M8Y 4C1  
(416)239-6080

## SUB-COMMITTEES 1977

### ARCH NOTES COMMITTEE:

CHAIRMAN: Michael W. Kirby  
29 Tournament Dr. Willowdale  
Ont. M2P 1K1 (416)223-7296  
MEMBERS: Ms. Janet Cooper  
Ms. Heide Lenzner  
Ms. Christine Kirby

### CONSTITUTIONAL COMMITTEE:

CHAIRMAN: David G. Roberts  
21 Fabian Place, Weston, Ont.  
(416)249-2971  
MEMBERS: Dr. Martha Latta  
Dr. J.H. McAndrews  
Mr. Chas. Garrad  
LEGAL ADVISOR: Mr. Seth Cook

## APPOINTED MEMBERS 1977

### EDITOR - ONTARIO ARCHAEOLOGY

Dr. Richard B. Johnston  
Dept. of Anthropology, Trent  
University, Peterborough, Ont.

### PROGRAMME & SOCIAL CONVENOR:

.. *applications invited* ..

### AUDITOR:

Mr. Frank Mee  
101 Chine Av. Scarborough  
Ont. (416)261-4389

### LIBRARIAN:

Ms. Marion Press

### SYMPOSIUM CONVENOR:

Ms. Patsy Cook

### SYMPOSIUM CO-ORDINATOR:

Ms. Sharon Hick

PUBLICATIONS: Scientific Journal - ONTARIO ARCHAEOLOGY; Newsletter - ARCH NOTES

MEETINGS: Usually at 8.00 p.m. on the third Wednesday of each month, excluding June, July and August, at the McLaughlin Planetarium, Royal Ontario Museum, Queen's Park, Toronto.

FEES: Per annum - Individual \$6.00; Family \$8.00; Institutional \$10.00; Life \$100.00  
Chapter fees extra.

MEMBERS: Approximately 475-500

\* \* \*

## OTTAWA CHAPTER

EXECUTIVE: President - David L. Keenlyside; Vice-President - Glenna Reid; Secretary/Treasurer - Iain C. Walker; Past President - Gordon D. Watson

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: \$4.00 (student \$2.00; Family \$6.00)

MEMBERS: Approximately 35-40

CORRESPONDENCE: c/o David L. Keenlyside, Archaeological Survey of Canada, National Museum of Man, Ottawa, Ontario

## LONDON CHAPTER

EXECUTIVE: President - Charles Nixon; Vice-President - Norah McWilliam; Secretary/Treasurer - George Connoy

NEWSLETTER: KEWA. Editor - Bill Fox

MEETINGS: Usually at 8.00 p.m. on the second Thursday of each month, excluding June, July and August, at the Lounge (room 344) of Talbot College, University of Western Ontario

CHAPTER FEES: \$4.00

MEMBERS: Approximately 35-40

CORRESPONDENCE: c/o George Connoy, 762 Elm Street, St. Thomas, Ontario N5R 1L4