



ARCH NOTES

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PRESIDENT'S COMMUNIQUE

Norma E. Knowlton

Although we are now in the lazy days of summer (really?) some of our members are taking their responsibilities seriously. It is gratifying to see comments on the Strategic Planning Committee Report beginning to come in. It is evident that a good deal of thought has gone into the replies. We welcome lots more of them! The Field Services Branch of the Ministry Of Culture, Tourism and Recreation (MCTR) met with heritage groups on June 24, 1993 to present their criteria for funding. By March 1994, each organization is expected to have developed a strategic plan which will be compatible with these criteria. Although our strategic plan should fit their goals, our primary intent is to meet the needs of the Society in the next few years.

As I pointed out in the last *Arch Notes*, the proposed heritage legislation continues to proceed. At a private meeting with your Legislative Committee and myself, the Hon. Anne Swarbrick, Minister of MCTR, again emphasized the importance of all party support. Especially important are the opposition critics. My reading of the situation is that, although the bill is obviously important to this ministry, the government itself has far more weighty matters to deal with and will not risk a slow-done of their schedule over heritage legislation. Since the bill should be ready for presentation in September, time is growing short.

Due to a set of fortunate incidents, and the commitment of our Executive Director, a field school is being offered to members of the Passport to the Past Program (P-T-T-P) in

August. A later phase with wider participation, will be offered in September. This is in the nature of a pilot project, and there will probably be lots of bugs to iron out, so don't expect perfection immediately.

Liaison with other organizations interested in heritage is also increasing. We continue to meet with the Ontario Heritage Alliance, the last meeting being June 7. An arrangement has been set up with the Association of Professional Archaeologists (APA) for closer communication, so that we may confer on issues of mutual concern. Although some OAS members have had contacts with various First Nations groups, the time has come to work together in a more consistent manner. Certainly there are areas of mutual interest, where understanding could be fostered by closer contact. And especially within the Society, communication is easier when it occurs person to person. The visit of Frances Duke, President of the Thunder Bay Chapter, at the June meeting of the Board was a pleasant and fruitful occasion.

Other matters to be noted. If you want to participate in the Annual OAS Bus Trip, act at once! News of a possible lecture in September, decisions in regard to the Heritage Conservation Award, appointment of the Nomination Committee for the election of Directors for 1994 are located elsewhere in this issue.

And I have saved the best for last! NO INCREASE IN MEMBERSHIP FEE FOR 1994.

A Preliminary Note on 'Woman River Chert'.

by Nick Adams

Summary

Archaeological surveys in the Sudbury District of northeastern Ontario resulted in the discovery of a lithic raw material, not previously described in the archaeological literature of the region. Through the examination of geological maps and studies, conversations with geologists and archaeologists, and the examination of numerous rock samples a probable source has been identified by process of elimination.

Introduction

Over the last two years **Adams Heritage Consultants** has been preparing cultural resources inventories of Mississagi River Provincial Park and Biscotasi Lake Provincial Park for the Ontario Ministry of Natural Resources. These parks are located in northeastern Ontario, close to the height of land which separates the Atlantic and Arctic watersheds (Figure 1). As its name suggests, Biscotasi Lake Provincial Park is located on Biscotasi Lake. For those of you who have read any of the works of 'Grey Owl' or his biographers, this name will be quite familiar. Mississagi River Provincial Park is a linear, waterway park which extends from Ramsey Lake, at the headwaters of the Spanish River system, down the Mississagi River as far as Rocky Island Lake - a distance of approximately 120 kilometres. It too has numerous associations with Grey Owl; a fact that is totally irrelevant to this discussion.

During the process of the archaeological surveys some lithic materials were recovered which had not been identified in the area before. Three distinct materials are represented, fine dark red to orange jasper, a high quality white to grey translucent chert with darker grey black to black streaky inclusions, and a more homogenous and lower grade grey to bluey grey banded chert.

The high quality translucent chert bears a

slight resemblance to the well known Ramah and Albanel cherts and quartzite from northern Quebec and Labrador; materials which are known to have been traded widely during prehistory. In searching for a possible source for the abundant lithic materials I too searched far and wide for comparative materials. The samples of Ramah chert in William A. Fox's comparative collection in London, Ontario were examined under varying degrees of microscopic power. Bill Fox also managed to acquire a new selection of comparative materials from the Nunaingok site (JcDe-1) on the northern tip of the Ungava (Tunnusuatsiak) Peninsula for comparative purposes. While superficial similarities exist between the two materials, it was becoming clear by this point that the artifacts from the Ramsey / Biscotasi Lake area did not derive from a known Quebec source.

Bill examined samples of all three Ramsey Lake materials, observing that fragments of jasper like material could be seen adhering to natural fracture plains on the finest quality chert and that reddish banding was present in other pieces, indicating some stratigraphic connection exists between the two materials. He suggested that the materials might all come from a single source. Furthermore, on the basis of the preponderance of large primary flakes and shatter fragments, a not-too-distant source could be postulated (William A. Fox, Personal Communication). A second critical observation, and confirmation of Bill's suggestion occurred during analysis of the items from site ChHn-5 (on Ramsey Lake) when a large flake was discovered which consisted not only of the high grade translucent chert, but also had a large fragment of the lower quality bluish grey material attached. Clearly a direct stratigraphic link between the jasper, the high grade chert and the lower quality material was now established. Fragments of magnetite have also been identified adhering to jasper primary

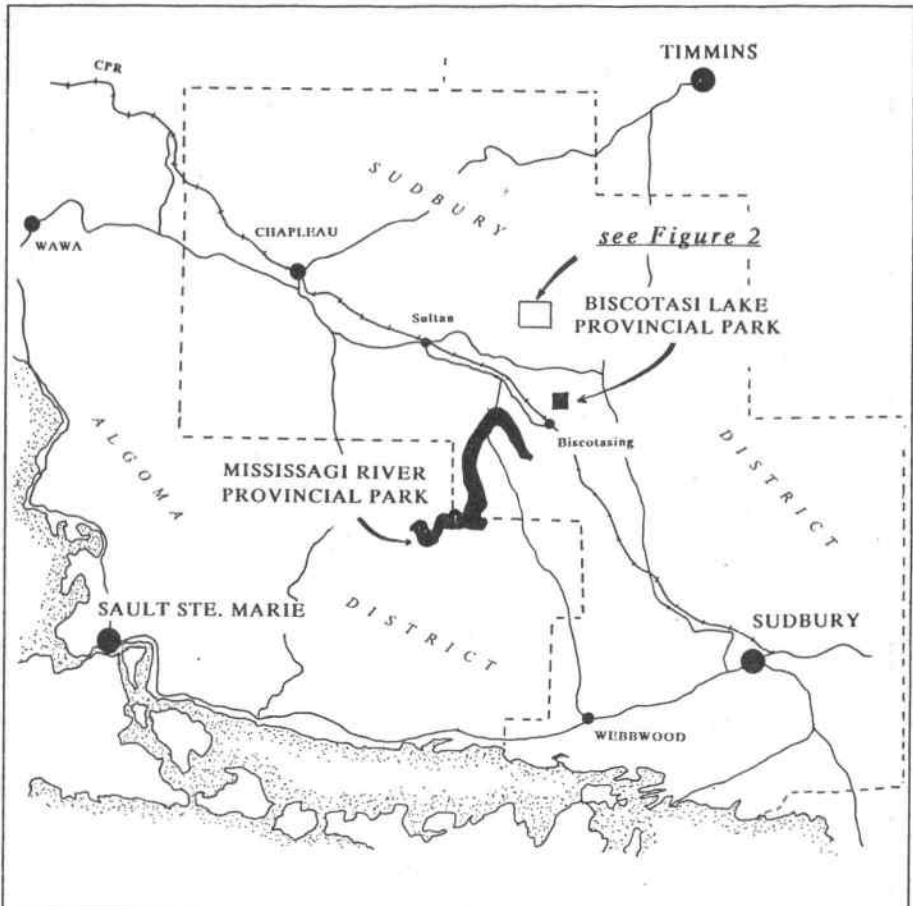


Figure 1

flakes (Alan Grant, Personal Observation).

'Woman River Chert'

During background research for the project, early references to the presence of Jasper to the north of the study area had been noted,

" Jasper is said to have been found some miles north of the Woman River, but as yet no definite information could be obtained regarding it and no guide could be found it was not visited. It has been reported also north of Biscotasing, associated with impure iron ore, but we could not obtain a

guide in this region either."

Ontario Bureau of Mines 1891, Vol 10, P.187.

Following up on this early reference geologists soon located the 'Woman River Iron Range' located along a 14 mile long strike in Genoa, Marion and Heenan Townships in the District of Sudbury (Goodwin 1965: 1) (Figure 2). Early access to the region was achieved by following the old Hudson's Bay Company Flying Post Route north from Biscotasing (OBM 1891 Vol 18 Pt 1). More recent geological studies of the area have resulted in the identification and definition of the Woman

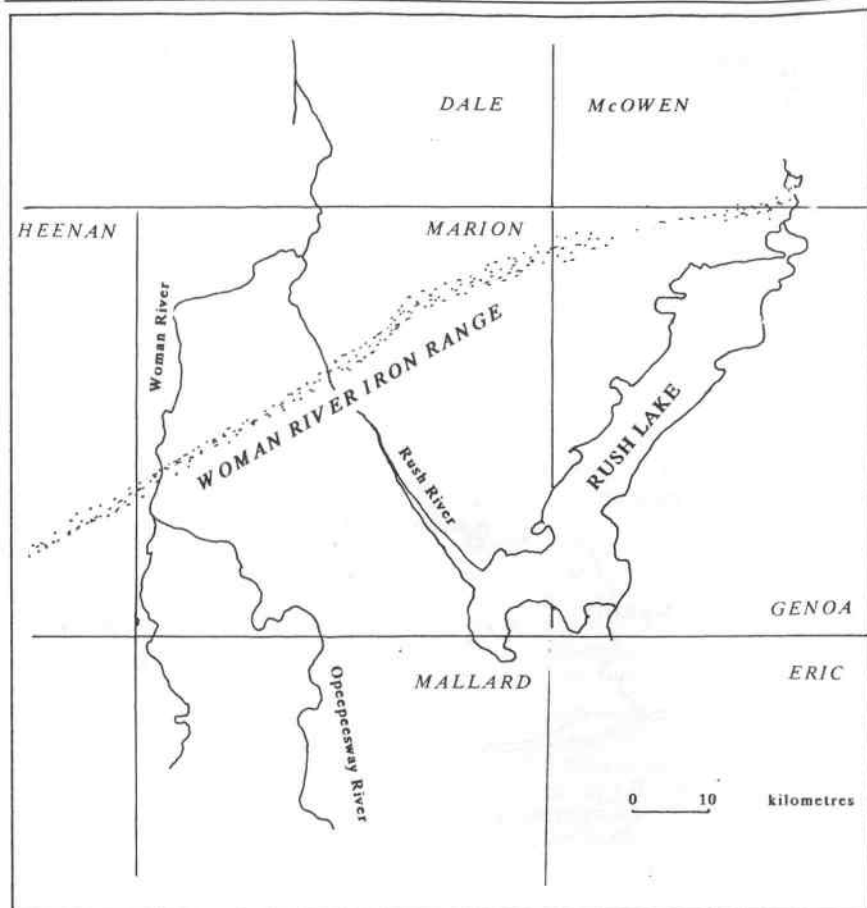


Figure 2
River Iron Range.

"The Woman River Iron formation of pronounced volcanic association, is highly variable in dimension and composition. A thick, continuous banded, chert-jasper-siliceous magnetite zone, present to the southwest, grades northeastward to thin, discontinuous pyrite-siderite-chert zones".

(Goodwin 1965: vi)

In particular, Goodwin's description of the section of the formation within Heenan Township provides a detailed picture of the

complex of cherts, jaspers and other siliceous materials which characterize the area.

"Within the subdivision of rock types, white to grey chert forms the upper stratigraphic zone, and jasper forms the underlying middle stratigraphic zone. Thus the iron formation, where it is completely developed displays an upward transition from siliceous magnetite-siderite phase at the base, through jaspery chert and grey banded chert, to light grey, banded chert with negligible iron content at the top of the formation...." (Goodwin 1965: 23).

The white to light grey, banded chert phase at the top of the formation is typically composed of white chert bands up to 1 inch thick with thinner, medium grey cherty interbands 1/4 to 1/2 inch thick. Relatively massive beds of light grey chert several feet thick, broken only by a very thin, medium grey cherty laminations are present, as are also massive bedded cherts of pale pinkish tint due to sparsely disseminated hematite. Locally, the banded chert contains thin shaly sideritic or magnetite bearing parting seams. The total iron content of this part of the iron formation however is probably less than ten percent.

Typical jasper consists of red hematitic bands up to 1 inch thick, alternating with grey to black interbands 1/4 to 1/2 inch thick, composed of chert with more or less disseminated magnetite or hematite. There are all transitions, from brilliantly banded maroon and black jasper to grey banded chert with faint reddish bands. A common variety of jasper consists of finely laminated, red chert bands and grey chert bands, 1/2 - 1 inch thick, alternating with thin, dark grey, magnetite bearing chert parting seams. Much of the lighter grey chert is finely laminated in darker grey shades. Grey chert bands locally contain considerably disseminated crystalline pyrite....

The chert and magnetite are both fine grained, about 200-300 mesh size.

Goodwin 1965:24).

An examination of the geological maps of the region showed few other possible sources from which these materials could have come; all of which lie close to the Woman River, and approximately 20 kilometres north of Biscotasi Lake (see Figure 2).

The Woman River Iron Range has been the scene of a number of geological explorations designed to assess the commercial potential of

these iron rich rocks. One fortunate spin off from this work has been that Pam Sangster, an Ontario Geological Survey geologist based in Timmins was able to provide two core samples from drillings in the vicinity of the Woman River. These samples, one of jasper and one of banded grey translucent chert, bear a striking similarity to those recovered from a number of archaeological sites in the region.

Distribution

This is a subjective analysis, based on impressions, not numbers.

Those sites examined during our survey which contained the greatest percentages of 'Woman River Chert' were located on Ramsey and Biscotasi Lakes - the large lakes which lie at the height of land and which are not too distant from the presumed source of the material.

Further down to Mississagi River these lithics still formed a part of the collection from most of the sites, but they were outweighed by grey Silurian and Ordovician cherts from the North Channel of Lake Huron. Hudsons Bay Lowland Chert was not abundant (though always present) - perhaps accounting for the extensive use of these local materials.

Finds of 'exotic' cherts have been reported in a number of surveys in adjacent areas. Archaeological recoveries of artifacts tentatively identified as Ramah Chert have been reported in the archaeological literature (Conway 1980, Hanks 1980: 28). Specifically these refer to a small side notched point from a site on Wenebagon Lake, and a large white quartzite flake knife from Gough Lake, made of 'a very fine grained milky coloured quartzite with green inclusions and a waxy finish' (Hanks 1980:28). Both artifacts come from waterways immediately connected to the Spanish / Mississagi River systems. At the time of the discovery of the latter item archaeologist Jim Chism doubted whether it was of Ramah material since it lacked the bluish hue characteristic of that material (Ibid.). Having seen both these items in the past, I now believe that they deserve reexamination in the light of 'Woman River Chert'.

Archaeological artifacts of 'Woman River Chert' have also been reported from Racine Lake, which lies at the headwaters of the Chapleau River, approximately 80 kilometres northwest of the Woman River Iron Range. Since these finds were reported by geologist Pam Sangster, who is very familiar with the Woman River formations, I suspect that they could well be of the same lithic material.

At this early stage it would thus seem that the use of 'Woman River Chert' occurs across a broad band of country at the headwaters of the Spanish, Mississagi, Groundhog and Chapleau Rivers.

Future Work

While it seems possible, even likely that the materials we recovered from archaeological sites, and those described in the geological literature, and provided to me in core samples are one and the same, this has yet to be emphatically established. I intend to return to the region this fall to examine possible sources of these rocks and to collect samples for comparative INAA and trace element analysis. With any luck quarries, lithic workshops and domestic sites associated with lithic reduction will abound.

In the meantime, archaeologists working in northeastern Ontario should be aware that this lithic material exists, but until sourcing studies can be completed, I suggest that the term 'Woman River Chert' be applied with caution.

Lastly, and tangentially

I am not given to dangling arrowheads over maps or responding to strange, recurring dreams, but occasionally things happen which cause one to ponder the nature of fate and coincidence.

In 1980 a friend I had met on a dig in England came up to visit me while I was living in Sault Ste. Marie. We decided a nice, vigorous canoe trip would be a delightful way to spend our few days together. The route we elected to take followed the Wakami River from Wakami Lake Provincial Park, joined into the Woman River, then finally spilled into Horwood Lake at the head of the Groundhog system. It

promised to be about a five day trip; short, sharp, with plenty of whitewater - a suitable introduction to canoeing in the Shield for someone from Canyonland.

Needless to say, it rained. By the third day we were soaked, cold and tired, so it was a great relief to round a bend in the river and see a substantial tent camp, and someone waving us ashore. To cut a long story short, we were fed, dried out and provided with accommodation. We were only too pleased not to have to pitch our sodden tent and take up the hospitality of these mining geologists from Falconbridge Mines in Timmins. I expect we politely asked what they were looking for, but I can't recall the response.

Thirteen years later, after the Mississagi / Biscotasi fieldwork was over, I was rummaging through a box of old maps when I came across the much crumpled one inch to two miles sheet we had used on the trip. Naturally I followed our route, reminiscing about the trip, until I came to a small, pencilled in cross which marked where we had stayed that torrential night. It marked a spot precisely on the line of the Woman River Iron Range - the spot to which I now find myself enticed to return.

References

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1980 Rare Archaeological Find Made in Chapleau District. *Arch Notes* 80(4):5-7, Newsletter of the Ontario Archaeological Society, Toronto.
- Emmons, R.C. and Ellis Thompson,
1929 **Preliminary Report on the Woman River and Ridout Map-Areas, Sudbury District, Ontario.** Canada Department of Mines, Geological Survey of Canada, Memoir 157, Ottawa.
- Goodwin A.M.
1965 Geology of Heenan, Marion and Northern Part of Genoa Townships. Geological Report No.38, Ontario Department of Mines.

continued on page 11



LETTERS TO THE EDITOR

Dear Sir:

It was with some interest that I read the two articles in *Arch Notes* (93:3), relating to clay tobacco pipes. I was prompted to write after reading the article, by Rita Griffin-Short, discussing the clay pipe assemblage from the Victoria Inn (AhGw-82). In response to some of the questions raised in the article I offer the following clarifications and information.

The fluted redware clay pipe bowl (photo 1H) may not necessarily be American; a Henderson marked pipe stem and partial bowl of a similar fine red clay was recovered from the Bethune Thompson site, Williamstown, Ontario. Red clay pipes were speciality products and commanded a higher price than did the traditional white ball clay pipes. Both the Henderson and Bannerman factories in Montreal produced this type of red clay pipe, as did the McDougall factory in Glasgow.

The writer states that a study of the Montreal industry is much needed.

Since 1984, I have been working on an economic and social study of the Montreal clay pipe industry. The first step in the study was to identify and search all known historical sources. There are approximately 90 individual pipe makers that have been identified for Montreal. The second step was to complete the family histories of all known pipe making families and attempt wherever possible to relate them back to the pipe making centres they immigrated from. Part of this step involved the locating and interviewing living descendants of the pipe making families. The third step was to search out business and credit information on the major Montreal firms. The final step in the overall study was to complete a social analysis of the Montreal industry in examining religious makeup, residence patterns

etc.

The material that has been collected, since 1984, is currently being written up and I will be publishing an initial volume on the Bannerman family by the end of the summer. A volume on the Henderson family will follow shortly thereafter.

Bannerman - Robert Bannerman is first listed as a pipe maker in the St. Marie Ward, Montreal, assessment rolls, in 1858. Robert immigrated to Canada sometime in 1854, and was probably working for William Henderson Jr. from 1854 to 1858. William Henderson Jr. appears as a witness on Robert Bannerman's marriage certificate when he married Mary Rose Gilbois in Montreal in April of 1857.

The Montreal Bannermans were the same family as the Glasgow Bannermans. Genealogical research in Canada and Scotland has confirmed that the two families are indeed the same. The Bannermans were also members of the same Glasgow church as the Hendersons. In fact William Henderson Sr. was married in 1808 by the same minister who later married Robert Bannerman's brother Carrick.

TD pipe bowls - Surface collections on the sites of the two major Montreal factories has revealed that the Henderson TD pipe bowl was very different from the Bannerman TD pipe bowl. The Henderson bowl is smaller and the TD impression is deeper and more pronounced. The Bannerman bowl was larger and the TD impression larger and less deep than the Henderson TD.

I have surface collections from both sites and would be willing to allow other researchers the opportunity of examining the two different bowl types.

The Montreal industry was not a shortlived or

unstable phenomenon. The rapid re-definition of the civic addresses of the pipe makers was the direct result of the incorporation of the "Quebec suburbs", St. Marie Ward, into the city of Montreal and not a reflection of instability, as Walker postulated.

Prices for Scottish imports were roughly twice that of Montreal pipes. Very little comparative information is available, and no catalogues such as the 1900 Scottish makers price list are known for the Montreal industry. I will be submitting for publication (in *Arch Notes*) a comparative study of Montreal pipe prices for the years 1852, 1856, 1869 and 1870.

I find the statement on mechanization and experience difficult to believe and validate. The key players in the Montreal industry were all experienced pipe makers prior to their immigration to Canada. The pipe industries in both Scotland and Canada were labour intensive and the work forces manually skilled and underpaid. Mechanization was not an identifying factor in the pipe industries in either Scotland or Canada.

Finally, I would like to address one of the issues raised in the final "Comment" section; the lack of comparative material. In 1986, I published an analysis of the Front Street Site (AjGu-15) clay pipe assemblage in which I compared the Front Street assemblage with other assemblages recovered from historic sites in Ontario. (*Ontario Archaeology* 46) Comparative material is certainly available, albeit difficult to obtain. In the same article I proposed a revision of the dates for the Montreal industry based upon the historical research I had conducted at that time. Despite subsequent research those dates still stand.

The clay tobacco pipe, as Ellen Blaubergs has demonstrated in the article entitled "Andrew Wilson and J.W. Scales: Two Toronto Tobaccoists Revisited", can be a key chronological tool if properly used.

I thank you for the opportunity of clarifying some of the issues raised and look forward to hearing from any interested parties.

Sincerely,

Robin H. Smith ■

Dear Sir:

It was with some sadness that I noticed omission of work done by Kidd, Ridley and myself in the bibliography of both reports in the recent *Ontario Archaeology* #56. Has the present rejected us completely? Apart from unreported "Digs" done by Emerson in the 1940s, 50s and 60s we tried to keep archaeology alive in this province, almost always at our own expense.

Why has the present academic "junta" invented a jargon language which makes the reading of current reports almost impossible? "Mitigate" and "mitigation" occur in every sentence but my Oxford Dictionary lends no credence for using these words in an archaeological context. I seek enlightenment! Perhaps a course in the use of simple, basic English should be a mandatory requirement for students of anthropology.

Best wishes,

Paul Sweetman ■

Correction - *Arch Notes* 93-3:26-36

Omitted from the article *Clay Pipes From The Victoria Inn...* by Rita Griffin-Short was the following bibliographic reference:

Collard, Elizabeth

1967 *Nineteenth Century Pottery and Porcelain in Canada*. McGill University Press

Also omitted was credit to the illustrator of Figure 1 in the article - **Megan Springate** - a student at McMaster University

Back In Time Researching

Historical research in family history, public and architectural history; locating of archival illustrations - photographs and maps. Any size projects, Toronto or elsewhere - contact Mary Beth Dominguez, B.I.T.R., 30 Kimbercroft Court, #609, Scarborough, Ontario M1S 4K9 (416) 412-3297

O.H.F. NEWS

Grant Awards

The Board of Directors of The Ontario Heritage Foundation is pleased to announce the following:

Research Grants:

A grant of up to \$10,000 to Martha A. Latta for a project entitled Historic Huron Occupations of the Coldwater River Valley.

A grant of up to \$7,350 to Robert G. Mayer for a project entitled Analyses of Skeletal Remains of former Wesleyan Methodist Cemetery, City of York (Weston).

A grant of up to \$1,675 to Barry Mitchell for a project entitled Development of Wilber Lake Site Complex.

A grant of up to \$7,300 to Patty Stuart-Macadam for a project entitled Health and Disease in a Tribal Entity from Southern Ontario: the Milton-Neutralia AD 1400-1600.

A grant of up to \$8,712 to Ken Cassavoy for a project entitled Atherley Narrows Fisheries.

Northern Initiative Grants:

A grant of up to \$3,077 to Nicholas R. Adams for a project entitled Tracing "Woman River" Chert to its Source.

A grant of up to \$9,966 to Arthur Amos for a project entitled Inundated Prehistoric Shorelines in Georgian Bay.

A grant of up to \$5,848 to Remi N.R. Farvacque for a project entitled Lichenometric Dating of Cobble Beach Features, Pukaskwa National Park.

Publication Grant:

A grant of up to \$5,000 to Robert I. MacDonald (co-editor) for *Great Lakes Archaeology and Paleoecology: Exploring Interdisciplinary Initiatives for the Nineties - Symposium Proceedings*.

New Publication:

As a follow-up to the academic and scientific book on Snake Hill, the Foundation funded the writing and publication of a popular version of

the excavation at Snake Hill. This publication of *Death at Snake Hill, Secrets from a War of 1812 Cemetery*, written by Paul Litt, Ronald F. Williamson and Joseph W.A. Whitehorse, is the third volume in the OHF's Local History Series. It is available from Dundurn Press Limited (416) 698-0454; cost \$12.95.

Gloria M. Taylor
History & Archaeology Unit
The Ontario Heritage Foundation
(416) 314-4908. ■

continued from page 8

Graton, L.C.

1902 *Up and Down the Mississaga in Bureau of Mines Report No. 5.* Ontario Department of Mines.

Hanks, Chris C.

1980 *The Archaeology of the Spanish River. Report Prepared for Inco Metals Central Utilities Division, Sudbury.* On file with the Ontario Ministry of Culture and Communications 80-F-0416.

Ontario

1891 *Ontario Bureau of Mines (Annual Report) 1891, Vol 10, P.187.*

Owl, Grey

1978 *The Men of the Last Frontier* Laurentian Library 37, MacMillan of Canada, Toronto. ■

PreEuropean Horticultural Impact on the Forest Landscape and Forest Succession of Southern Ontario, Canada

by Ian and Celina Campbell

Abstract

Increased *Pinus strobus* frequency in Southern Ontario, Canada, A.D. 1300-1500, has been ascribed to succession on abandoned Iroquoian fields. Pollen diagrams show forest succession was more widespread than Iroquoian occupation, and was caused by the Little Ice Age. Iroquoian horticulturalists and *Pinus strobus* had similar edaphic preferences, leading to the coincidence of pine stands and archaeological sites. Ontario's mixed forest responded rapidly to climate change, but low intensity swidden horticulture had no observable regional impact on the forest.

Key Words: Little Ice Age, Ontario, *Pinus strobus*, Iroquois

White pine (*Pinus strobus*) is a typical species of the Great Lakes - St. Lawrence forest region (Rowe, 1972). It grows in a wide range of habitats, but is most common on rocky ridges, steep slopes, and well-drained sandy soils (Rowe, 1972; Fowells, 1965). It is fairly shade intolerant, and is common as an old-field species (Fowells, 1965). In Southern Ontario, it was of major economic importance for timber (Aird, 1985). Stands of white pine occur near several archaeological sites (Bowman, 1980). Fossil pollen analysis shows an increase in the frequency of white pine during the period of prehistoric Iroquoian horticulture (Figure 1). These observations have led to a belief that Iroquoian swidden horticulture, practised over several centuries prior to European contact, caused the prehistoric increase in white pine (Burden *et al.*, 1986; McAndrews and Boyko-Diakonow, 1989). A corollary of this belief is that old stands of white pine in Southern Ontario delimit abandoned Iroquoian fields (Bowman,

1980; Lennox *et al.*, 1986).

Cluster analysis of trends in Ontario pollen diagrams shows that white pine increased in relative abundance throughout Ontario south of Lake Nipissing during the 1000 years prior to EuroCanadian disturbance, and decreased in relative abundance north of Lake Nipissing (Campbell and McAndrews, 1991) (Figure 2). If the increase in white pine was due to Iroquoian disturbance, it should have been strongest in areas densely populated by Iroquoians (Figure 3). Instead, there is no significant correlation between Indian occupation and forest dynamic trends (Campbell and McAndrews, 1991).

The pollen trends south of Lake Nipissing show a decline beech (*Fagus*), followed by a peak in oak (*Quercus*), poplar (*Populus*), or other early-successional species, leading to a rise in white pine (Campbell and McAndrews, 1991). White pine peaks after the beginning of EuroCanadian disturbance, and the subsequent decline is likely the result of logging in the late 19th and 20th centuries. In the north, white pine generally declines, followed by an increase in red and jack pine (*Pinus resinosa* and *Pinus banksiana*) and spruce (*Picea*) (Campbell and McAndrews, 1991). Both the northern and southern dynamics can be adequately explained by a climate cooling (commonly known as the Little Ice Age [Grove, 1988; Ladurie, 1971; Lamb, 1971]), which would have increased mortality at the northern edges of species ranges, while decreasing mortality at the southern edges. Such a cooling is known to have occurred both in the Great Lakes region, as well as elsewhere in the world (Cermack, 1971; Gajewski, 1987; Grove, 1988).

Synthetic Southern Ontario Pollen Diagram

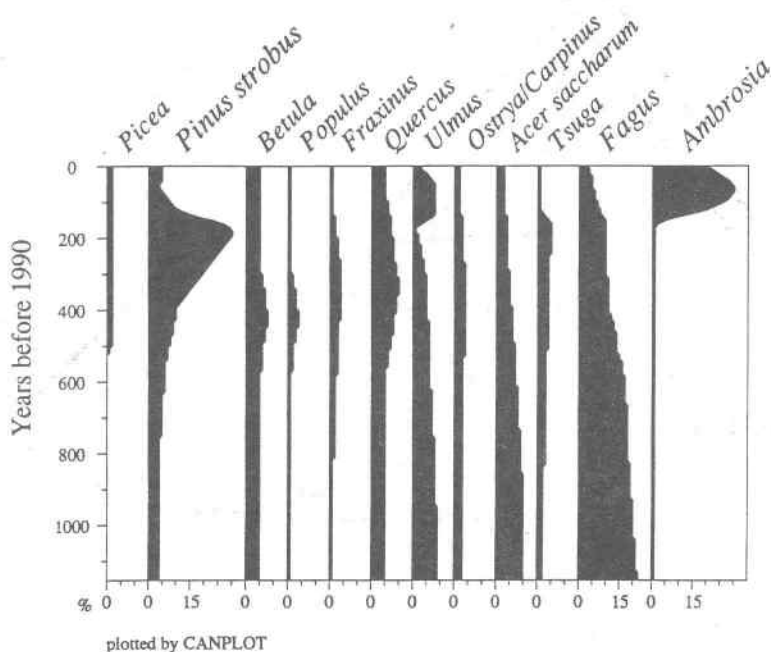


Figure 1. Synthetic Southern Ontario pollen diagram for the period A.D. 850-1990. (Note: an increase in ragweed [*Ambrosia* sp.] marks the beginning of EuroCanadian disturbance ca. 1850 throughout the region [Anderson, 1974]).

The natural forest of southern Ontario is dominated by beech and sugar maple (*Acer saccharum*), of which beech has the more southerly distribution, reaching its limit near Lake Nipissing (Fowells, 1965; Rowe, 1972). An increase in the mortality of beech in Southern Ontario would cause an increase in the rate of canopy gap formation, allowing early- and mid-successional species to temporarily increase in abundance. White pine, which reaches peak abundance in Ontario at the latitude of Lake Nipissing, would increase to the south of Lake Nipissing, where it is an early mid-successional species. Further north, where it is subclimax, it would decline. This would allow red pine, jack pine, and

spruce to increase in abundance north of Lake Nipissing. Because these are the dynamics observed in the regional pollen diagrams, climate change rather than Iroquoian horticulture is the likely cause (Campbell and McAndrews, 1991).

If the Iroquoians did not cause the increase in white pine, what explains the apparent coincidence of white pine and Iroquoian sites? The answer appears to be that Iroquoians and white pine both prefer similar edaphic conditions in parts of Southern Ontario.

Location Quotients compare the frequency of Iroquoian village sites linked with particular phenomena to the frequency of those

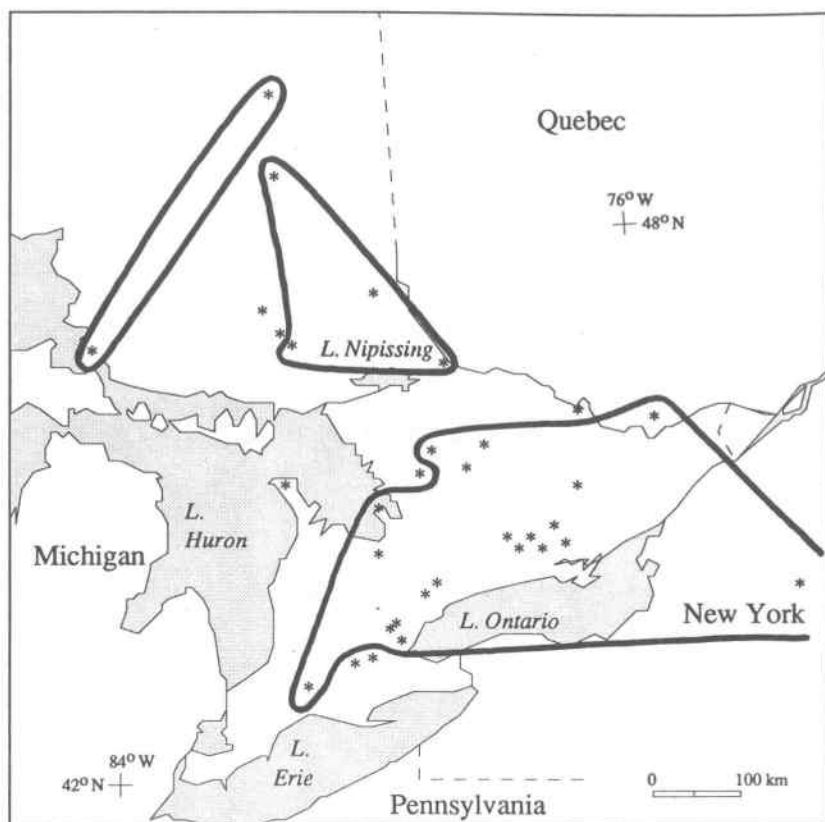


Figure 2. Cluster analysis of Ontario pollen diagrams shows all of Southern Ontario as a coherent region of similar forest dynamic over the 1000 years prior to A.D. 1850, with no separation between areas with and without dense Iroquoian occupation (Campbell and McAndrews, 1991). Beech (*Fagus grandifolia*) declines and white pine (*Pinus strobus*) increases throughout the southern cluster; the two northern clusters are defined largely in the dynamics of red pine (*P. resinosa*), jack pine (*P. banksians*) and spruce (*Picea* spp.). * indicates the locations of pollen cores used in the analysis.

phenomena within the study area (Campbell, 1991; Campbell and Campbell, 1992). For example, the location quotient for clay is:

$$\text{Location quotient for clay} = \frac{\% \text{ of sites on clay}}{\% \text{ of study area with clay}}$$

Location quotients greater than 1 indicate attraction; that is, those phenomena were chosen more frequently than would be expected if the choices were random.

Location quotients below 1 indicate aversion to the phenomena.

Location quotients were calculated for various edaphic parameters for the 333 prehistoric and protohistoric Iroquoian agricultural village sites (ca. AD 900 - 1550; Figure 3), and the probable minimum duration of the frost-free season nine years in ten (Table 1). Clearly, the Iroquoians had a strong preference for sandy, well-drained soils, with moderate relief

(Campbell, 1991; Campbell and Campbell, 1992). They also seem to have found areas with fewer than 90 or more than 130 frost-free days nine years in ten unattractive. These preferences were likely the result of the combination of the requirements of their staple crop (Maize), their horticultural technology (digging sticks and no irrigation or drainage ditchers), and the physiography and climate of Southern Ontario (Campbell, 1991).

The strains of maize grown by the Iroquoians required at least 90 frost-free days to grow to maturity (Campbell, 1991). With maize

contributing as much as 58% to 65% of their diet (Heidenreich, 1971; Moncton, 1990), the Iroquoians would have selected only those sites with a reasonably low frequency of killing frosts during the growing season; hence they would have selected sites having 90 frost-free days or more in most years. They preferred sandy soils both for their drainage, since maize requires good drainage, and for ease of digging, since they used only digging sticks made of wood, bone, or hafted stone.

The aversion to clay soils is likely the result of this technological limitation, as well as the poor drainage often associated with clay soils. The aversion to low relief is also likely due to the poor drainage associated with such sites (Campbell, 1991; Campbell and Campbell, 1992). The apparent aversion to sites with very long frost-free seasons is due to the coincidence of low relief and clay soils throughout most of the warmest part of Southern Ontario (Campbell, 1991; Campbell and Campbell, 1992).

Since white pine is less shade tolerant than

beech or maple, it requires sites in which beech and maple can not compete, or in which large canopy gaps are frequent. Beech and maple both prefer mesic sites, while white pine prefers dry soils (Fowells, 1965). Furthermore, moderate to steep slopes encourage gap formation by increasing the instability of roots. Hence, within the region of overlap between the range of white pine and the Iroquoians, both would tend to occur on similar sites with well-drained soils and at least moderate relief.

The only study to seriously test this association

Table 1. Location quotients demonstrate a strong correlation between Iroquoian village sites and light-textured, well-drained soils with more than 90 frost-free days nine years in ten (Campbell, 1991).

Soil Texture	Location Quotient
Sand	0.
Sandy Loam	2.2
Loam	1.3
Silt loam	0.9
Clay and Clay loam	0.5
Relief	
Depressional to Level	0.
Very gently undulating	0.3
Undulating	1.7
Moderately Rolling to Rolling	1.2
Hilly	0.2
Drainage	
Good	1.5
Imperfect	0.9
Poor	0.3
Very poor	0.1
Minimum Frost-free season, nine years in ten (in days)	
0 - 89	0.
90 - 109	0.7
110 - 129	1.4
130 - 149	0.6
150 +	0.7

on a regional scale did not find one; instead, large white pine stands were found to have no archaeological sites, while areas with only scattered pines were densely populated by prehistoric Iroquoians (Heidenreich, 1971). This study was conducted near the northern limit of Iroquoian villages in Ontario, in an area where white pine is abundant. That archaeologists perceive an association between white pine and Iroquoian sites is likely a result of these

similar edaphic preferences in relatively small areas densely populated by Iroquoians, primarily further south along the north shore of Lake Ontario where white pine is frequent but forms large stands only on the most favourable sites. In this area, white pine stands may indeed be a reasonably good predictor of archaeological sites, but out of coincidence rather than out of a causal relationship.

Prehistoric swidden horticulture is neither a sufficient nor even a necessary explanation for the observed forest successions, while climatic

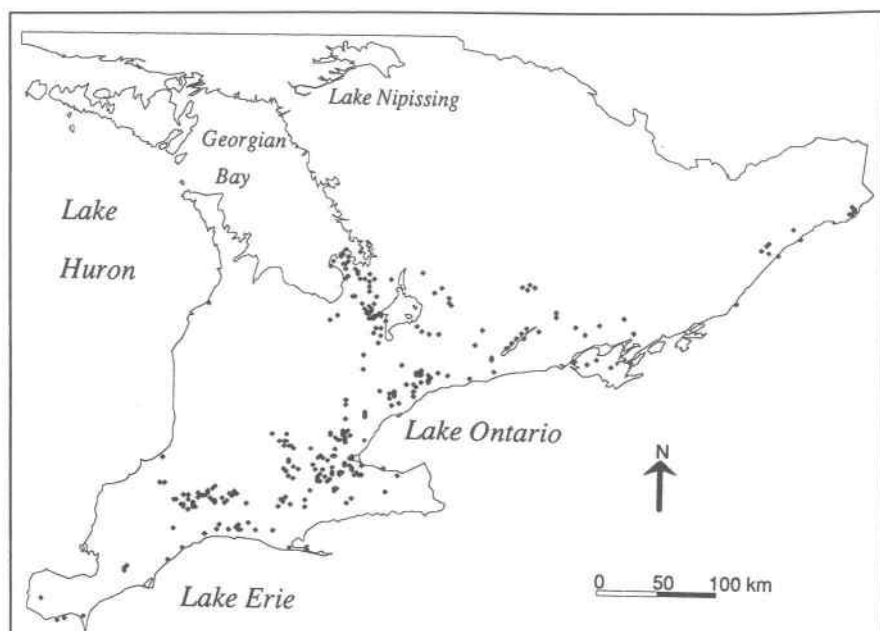


Figure 3. 333 prehistoric Iroquoian sites from A.D. 600 - 1550 (Campbell, 1991)

cooling is both sufficient and well-supported. The beech decline and pine rise found in pollen diagrams of the region are likely due to the Little Ice Age. Furthermore, despite the relatively high density of swidden horticulturalists, the Iroquoians do not seem to have seriously affected their environment.

This study leads to two conclusions of more than regional importance. Firstly, forest ecotones, like the mixed forest region of Southern Ontario, may respond both rapidly and strongly to relatively minor climatic changes. Secondly, low intensity swidden horticulture, such as that practised by the Iroquoians, is unlikely to have a significant regional impact on the forest, even over several hundred years.

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Acknowledgements

We would like to thank Conrad Heidenreich and Jock McAndrews. ■

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marked "moved". The Society's Constitution Article XVI.3 requires every member to advise any change of address, and that notice sent to the last known address constitutes sufficient service. Please be advised that if this mailing is returned to the Society similarly marked "moved", your Life Membership will be suspended and mailings to you will cease.

1992 OAS ANNUAL REPORT

Just a reminder that the Society's Annual Report for 1992 is available in the office and by mail postage paid to any member.

VOLUNTEER SERVICE AWARDS

The five members nominated by the Society for provincial Volunteer Service Awards in 1993 received their pins and certificates in a ceremony held in the Metro Convention Centre, Toronto, April 22nd. Congratulations go to Annie Gould and Jane Sacchetti (each ten-year pins), Greg Purmal, Duncan Scherberger, and Geoffrey Sutherland (five-year pins).

Returned Mail

This month's missing members are below. Returned mail awaits them at the office. Somebody and respective Chapters must know these people and where they are. Please help us find them.

CREWE, Nola, Toronto "moved"

HUNTEN, Janet, London

SINCLAIR, Mary Jane, Ottawa "address incomplete"

WILLIS, Jay & Carolyn, Ottawa ■

LEADERS, ORIGINS, CUSTOMS AND UNITY: TRADITIONAL HURON NOTIONS OF COUNTRY

by John Steckley

At the time of early contact what did Native people think when they thought of "country"? This is an important question today as Native people tap their traditions like maples for the spiritual sustenance and information they provide concerning much-rumoured privatization of reserves. The Jesuit Huron literature is a rich source of information related to 17th century Huron notions of "country". The terms that best supply this information are the three nouns ondecha, onh8entsa and andarach(r)a.¹

1.0 Huron Term for "Country"

The noun ondecha was the most often used word for "country", typically translated into French as "pais" (FHO, FH62, FH67:147, FH1697:137 and Potier 1920:455), or "terre" (FHO, FH67:188, FH1697:207, HF59:184 and Potier 1920:455). It is derived from a verb root onde, presented by Jesuit Father Pierre Potier in the following way:

1.1 *"onde ę avoir son pais, sa patrie en q. lieu / to have one's country, one's native land in some place / a,onde ,ehen de Lorette c'etoit mon pais Lorette stan on,ionde te ,en dex'aonh8entsate, on,ionde e8aton ,aronhia,e / It is not our country, this earth. It will be our country, the sky. / ce monde n'est point notre pais, ce sera le ciel. onde ahoio / One's country, it killed him. / il est mort de faim (quasi dicas) le pais, le quartier du pais la tué, n'y trouvent rien / He died of hunger (as if to say) the country, the district of the country killed him. Nothing is found there."*(Potier 1920:408)

While this construction would seem to make for ondecha referring more to the political than to the physical representation of "country", there are a good number of dictionary entries in which the notion of "land" or "earth" more closely approximate accurate translation of the noun:

1.2 *"ondechandionk / to be able, capable on the land / etre bon pieton, etre homme de voyage / to be a good pedestrian, traveller"* (Potier 1920:293)

1.3 *"ondecha,enhia / at the top of the land / la superficie, le dessus de la terre / the surface area, the top of the earth, ground"*(Potier 1920:244)

1.4 *"aondecha, andend . . . / earth moved back and forth / la terre trembla / the earth shook"* (Potier 1920:234)

The noun onh8entsa is typically translated as "pais" (FH1697:137, FH62 and Potier 1920:455, or "terre" (Potier 1920:455, FH1693:254 and FH1697:141), sometimes as "monde" (FHO, HF65:246 and Potier 1920:455). Generally speaking, onh8entsa possesses more of the physical sense of "land" or "earth" than the political sense of country. The following example demonstrates this:

1.5 *"La terre de nos champs est vieille, usée / The earth of our fields is old, used up / aonh8entsa,ondi d'etion,8aenx8i / The earth is old where we prepare our fields"* (FH1693:359; c.f., FH1697:207 and Potier 1920:235)

Cognate (related) terms in other Northern Iroquoian languages are typically translated as "earth" (Mohawk, Michelson 1973:114; Onondaga, Woodbury 1980:62; Cayuga, Foster 1980:18; Seneca, Mithun 1980:118 and Tuscarora, Rudes 1987:75).

There is still, however, a strong political connection with onh8entsa, a strong link between a nation and the earth of its country, as can be seen in examples such as the following:

1.6 *"onnaon,8atonh8entsatandi aon,8atonh8entsaas / Behold, the earth has ended for us / voila la fin du monde (notre nation va etre detruite. Le terre va finir pour nous) / Behold,*

the end of the world (our nation is going to be destroyed. The earth is going to finish for us)." (Potier 1920:359)

With both of these nouns sharing the political and physical senses of "country", it should not be surprising that there is some overlap between the uses and meanings of *ondecha* and *onh8entsa* in examples such as the following:

1.7 "atondechatieronk8andiatonh8entieronk8andi enlever à q. sa terre, son pais par force / to take from someone one's earth, one's country by force" (Potier 1920:190)

In Potier's writing we see a dialect dimension to this. He used "dic" (from the Latin verb "to say") when making Petun-Wyandot additions of *onh8entsa* to the Rock dialect *ondecha* entry he was copying. We see this in the following examples:

1.8 "achienmonk ondecha8erha8i La terre est entre 2 (non aud / not heard) dic haonh8entsa8erha8i" (Potier 1920:321)

1.9 "atondechatase faire le tour de la terre ... dic ahatonh8entsatase *ahatondechatase il a fait le tour&" (Potier 1920:360)

The noun *andarach(r)a* deals with "country" in a more limited way than do the other two nouns. It is derived from the verb root *-ndare-*, meaning "to dwell, exist" (Potier 1920:280). By itself it is presented as meaning "demeure" ("dwelling, residence, habitation"; Potier 1920:280).

2.0 Leaders

There was an identification between country and leader. In council meetings the name of a leader of one of the Huron tribes would often be spoken when the tribe he represented was being referred to (Sagard 1939:91, JR10:231 and 289). In speaking of this practice Brébeuf wrote that:

"Formerly only worthy men were Captains, and so they were called *Enondecha* / probably *hemondecha* "they (are) country" / , the same name by which they call the Country, Nation, district / *le Pays, Nation, terre* / - as if a good Chief and the Country were one and the same thing." (JR10:231, French 232; addition mine)

In an earlier paper (Steckley 1987:21-2), I

discussed how the verb root *-io-* "to be good, great, large" combined with the noun roots *-nnonchi-* "house" and *-8end-* "voice" resulted in words pertaining to leadership i.e., the head of a house, the one in authority in trade routes.² Included in the discussion was the following quote:

"...one Achioantaté... had gone so far as to say that if he were the *Aondechio* / probably *haondechio* "he is good (in the) country" / that is the master of the country, it would soon be over with us, and we would already have been put in a condition wherein we could do no more harm." (JR13:215; addition mine)

We get a similar meaning with *onh8entsa*:

2.1 "je suis maitre de la terre. endi ,onh8entsio" (FH1693:359)

3.0 Origins

First Nations is a new term, but it is an old concept. The 17th century Huron used *andarachrio* to express the notion of a people being the original or first people in an area, as can be seen in the following:

3.1 "Etre les premiers et naturels habitants d'un pais ,andarachrio / to be the first and native inhabitants of a country / *Les sauvages sont les vrays at naturels habitants de ce pais* / The "savages" are the true and native inhabitants of this country. / *on,8e n'on,8e daat encarachrio dex'ondechate* / Humans who are human are very good, great in their dwelling place, this country." (FH1693)

3.2 "andarachrio etre les maitres habitants, les vrais, le/s/ naturels, les 1^{er} habitants; les originaires par opposition à d'autres qui viennent ensuite se joindre à ces 1^{er} ... etre sur son fumier, dans son propre pais, sa propre terre, son propre terrain, domaine / to be the "master" inhabitants, the true, the native, the first inhabitants; the natives in opposition to the others who came afterwards to join with these first ones ... to be on one's own dunghill, in one's own country, one's own earth, one's own land, domain" (Potier 1920:280)

It should be noted that in 3.1 with "on,8e n'on,8e" "humans who are human", we have the earliest recorded instance that I know of and the only Huron example that I have seen

of the Iroquoian term for Natives as opposed to Europeans. In the other languages it appears as one word, e.g., in Mohawk as "ukwehu:we" (Michelson 1973:115; see Kick, Henry, Jacobs and Sandy 1988:51 for a Cayuga example and Rudes 1987:106 for a Tuscarora example).

There was a personal as well as a group sense of origin in the land as well, judging from the following entry:

3.3 *"ti ondech'ande,aron pousser, sortir hors de terre, naitre (ut ipsi: fabulosa fide de se ipsis credunt) / to push up, come out of the earth, be born (for the self according to the beliefs in legend that they believe in / *ationd-echandera / She rose up, lifted up in the country. / c'est là qu'elle vint au monde / It is there where she came into the world." (Potier 1920:181)*

4.0 Customs

Customs were also seen as originating in the country, in the land. The two, customs and land, were therefore one, as the leaders and the land were one. Customs were spoken of as beginning when the country did, as in the following reference to what was probably the Feast of the Dead.

4.1 *(nous portons la cad/a/vre) "on,8atondechinde on,8ahoarinnenha8i / We draw, drag it from the country, we carry the corpse. / nous avons cette sorte de dnase depuis le commencement, la naissance, l'origine de notre pais / We have had this kind of dance since the commencement,³ the birth, the origin of the country." (Potier 1920:323)*

The ultimate expression of the identity of custom and country came in the Jesuit Relations:

"Moreover, the body of the Hurons being only an assemblage of various families and petty Nations, which are associated together for the purpose of maintaining themselves against their common enemies, each one has brought its special dances, customs and ceremonies, all emanating from the same source, which are communicated to the whole country, and which are then observed according to the dream or *ondinonc* of each one, when he is sick, or by the order of the native Physician ...

And such observances are called among them "Onderha," / i.e. *ondecha* / that is to say "the ground", as one might say the prop and maintenance of their whole State." (JR17:195-7; addition mine)

We see in this as well some sense that *ondecha* had a spiritual element in addition to the physical and political ones.

Although the Huron relatively freely borrowed practices and material goods from other cultures, they felt that each country had a set of customs appropriate to itself, part of each people's identity with the physical country in which they lived. That notion was perhaps best expressed with the nouns *ondecha* and *onh8entsa* incorporated into the verb root *8ten*, meaning "to be such" (Potier 1920:441). We can see this in entries both from the Jesuit Relations and in the Jesuit Huron dictionaries:

"The evil is, they are so attached to their old customs that, knowing the beauty of truth, they content to approve it without embracing it. Their usual reply is, *oniondechouten*, "Such is the custom of our country."" (JR10:19)

"ondech'8ten, onh8ents8ten ... Les coutumes d'un pais etre telles (ad vbm) une terre, un pais etre fait de telle maniere ... / The customs of a country are such (literally) a land, a country is made in such a manner. / 8o ion,iondech8ten 8o ion,ionh8ents8ten notre terre, notre pais est tel id est nos coutumes sont telles / Our land, our country is such; also, our customs are such." (Potier 1920:441)

5.0 Unity

When the people were divided, so was the country, the land. The unity of the people and of the country were as one. We can see this in the names of two of the nine named gifts making reparation for when one Huron killed another. The third gift had a name which involved *ondecha* and the verb root *-ri-* "to join together" (Potier 1920:347):

"Yet, as if the blow had rebounded on their Native Land, and as if it had received the greater wounds, he adds the third present, saying *condayee onsahtondechari*, "This is to restore the Country."" (JR10:217)

The social rift between the two lineages or

clans of murderer and victim was spoken of as a physical rift of a land divided. This is reiterated with the fourth gift, in which the noun *onh8entsa* is incorporated into the verb *-ia-*, meaning "to be broken, cut in two" (Potier 1920:263):

"*condavee onahondwaronti. etotonh8entsiai*
This is to put a stone upon the opening and the division of the ground that was made by this murder. They claim by this present to reunite all hearts and wills, and even entire villages, which have become estranged." (JR10:217-9)

NOTES

1. The presence of the *-chr-* rather than *-ch-* given in the three sources in which I have encountered this noun — FH1693, FH1697 and Potier — may indicate that this is a Cord (first two sources) and Wyandot (last source) form.

2. We also find *-io-* used with the nouns *-rih8-* and *-entiok8-* to refer to peace and war leaders respectively (FH1697:35 "chef. csilii. horih8io belli hotiok8io.")

It is interesting to note that the name for the French governors, Onnontio "large or great hill", a translation of Governor Montmagny's name, followed this tradition of having *-io-* at the end of a political leader's title.

3. That this verb is used to mean something like "since the beginning" can be seen in the following example where *-in(n/d)-* incorporates *onh8entsa*:

"*etion,8atonh8entsinde*ti depuis que notre pais a commenc  d'etre" (Potier 1920:323)

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The Imbedded Hair Of The Pendejo Cave, New Mexico*

by Dr. Howard Savage

The Faunal Archaeo-Osteology Laboratory, Department of Anthropology, University of Toronto, received on May 25, 1992, a small portion of gray limestone, approximately 1.5cm x 1cm x 1cm in size and from which protruded a single hair 1.3cm long. The hair was of a dark gray colour, was readily flexible and was firmly imbedded in the calcrete limestone. The calcrete had been retrieved from Zone E, of Pendejo Cave, on the Fort Bliss Military Reservation in southern New Mexico. The hair in the calcrete was millimetres away from charcoal also imbedded in the calcrete and dated at $19,180 \pm 290$ years B.P. The limestone mass was carefully replaced in its plastic envelope, and taken the next day to the Centre of Forensic Sciences of the Solicitor General of Ontario, and given to Mr. Anthony Tessarolo, B.Sc., a Hair and Fibre Analyst of the Forensic Centre.

Calcrete, as you may know, is a limestone, formed by cementation of soil, sand, gravel and/or shells by calcium carbonate deposited by evaporation or by the escape of carbon dioxide from water above ground level (Merriam-Webster, 1986). It may form quickly (over a matter of weeks), it may form slowly (over a matter of centuries), but form it does, immobilizing whatever objects are at hand.

Having previously obtained the permission of Dr. Scotty MacNeish and Dr. Don Chrisman, Tessarolo severed the hair at the point where it emerged from the calcrete, yielding a 1.1cm length of hair. After its mounting in a mounting medium (Malinol) and its microscopic examination under a magnification of 312 times, Tessarolo concluded as follows: "Based on the microscopic characteristics of the hair structure (cuticle, cortex and medulla), this fragment was concluded to be of HUMAN ORIGIN and consistent with being a body hair (non-scalp)".

Photomicrographs of this hair under various magnifications (courtesy of Don Chrisman) showed a straight shaft, with a slender, fairly dense, amorphous and discontinuous medulla, occupying the central third of the shaft. The medullary index, as the relation between the diameter of the medulla and the diameter of the whole hair shaft at its greatest thickness, was found to be 0.304. Niyogi (1962) notes that the medullary index of human hair is almost always below 0.30, while that of non-human hair is above 0.50, with rare exceptions.

The cortex forming the remaining two-thirds of the shaft was relatively clear, with a moderate number of pigment granules evenly distributed. No ovoid structures which are solid bodies, spherical to oval in shape, were visible in portions of the shaft photographed; these structures are only occasionally seen in human hairs (F.B.I. Technical Supplement, 1977). No cortical fusi, which are spindle-shaped air spaces of varying shapes and sizes, were seen in the photographed portion of the shaft, although numerous in other portions of the shaft.

The cuticle of this hair shaft showed the imbricate or flattened scales, with narrow, even margins and partially encircling the hair shaft.

Cross-section views in the Scanning Electron Microscope x 600 preparations of the hair from Zone E showed the hair shaft to be roundly oval, with a diameter of approximately 77 microns. A small, centrally placed, almost round medulla, and a few scattered black pigment granules, mostly peripherally located were seen in the cortex. At this level a medullary index of 0.19 and 0.21 according to the orientation of the long diameters of the medulla and the hair shaft was noted.

In summary, the foregoing description of this

hair in its longitudinal and cross-section views fits that of a human hair. The medulla in its relatively slender, amorphous and discontinuous nature, the approximately circular outline of the shaft of the hair and in the cortex the pigment granules around the periphery of the cortex set it apart from other mammalian species (Niyogi, 1962).

The assignment of this hair to a body origin is, I believe, less well based. Niyogi comments that only human hairs which have an unbroken root and natural tip should be assigned to a particular area of the body. The F.B.I. Technical Supplement (1977) recognizes that variation in single hair characters may make its area or origin difficult or impossible to determine. You will recall that Tessarolo noted only that this hair fragment is consistent with being a body hair.

Comparison of Hairs of Human and Other Common Species

Longitudinal and cross-section views of the hair from some common species, the Domestic Pig (*Sus scrofa*) and the Domestic Sheep (*Ovis aries*) (Brunner and Cowan, 1974) demonstrate the differences in their hair characters. Even within the Order Primates, longitudinal views of hairs of the Howler Monkey (*Alouatta pigra*) and the Spider Monkey (*Ateles geoffroyi*) (syn. *A. belzebuth*) are very different from human hairs. These two species currently live in the rain-forests of southern Mexico, some 500 or more miles of mountains and arid or semi-arid country distant from Pendejo Cave. The Howler Monkey has a narrow lattice medulla and a medullary index of 0.50, while the Spider Monkey hairs have a narrow uniserial ladder medulla and a medullary index of 0.43 and a heavily pigmented cortex. For one question concerning Primate hair, I have no answer. A physicist of the Isotracer facility, University of Toronto, asked casually "How do you know that the imbedded hair of the Pendejo Cave is not from a Susquatch or Yeti?" My answer will have to wait upon obtaining specimen hairs from such a Hominoid, if it exists.

In a more serious vein, extinct mammal species may have been contemporaneous with

Zone E fauna, e.g. the ground sloths *Nototherium*, *Megatherium* and *Paramylodon*, the North American Lion (*Panthera leo atrox*), and the Short-faced Bear (*Arctodus* sp.). I am assured by Dr. Rufus Churcher of the Department of Zoology, University of Toronto, that the hairs of the ground sloths was very coarse, and quite unlike human hair. Dr. Charles Bolen and Dr. Larry Agenbroad, of Northern Arizona University, are attempting to obtain specimens of the *Panthera* and *Arctodus* species.

Preservation of Hairs in Archaeological Sites

Bonnichsen and Bolen (1985) comment that under most preservation conditions in archaeological sites, shed hair does not last long. However hair does preserve in Arctic permafrost, dry arid caves, and damp cold deposits as in high altitude limestone caves. In False Cougar Cave in the Pryor Mountains in south central Montana, of late Pleistocene dating (10,350 and 14,590 years B.P.) screen washing of damp sediments of matrix showed hair of several taxa (including human) (Bonnichsen et al, 1985). Bonnichsen et al (1992) reported at Mammoth Meadow II, an open air site in southwestern Montana of a late Pleistocene dating hairs from several mammalian taxa (including human) were recovered by flotation. The significance of the Pendejo Cave human hair is that it was firmly imbedded in calcrete, beside charcoal also imbedded in calcrete and radio-carbon dated at 19,200 years B.P. in Zone E, and in an archaeologically sealed stratum.

Human Hairs from Zone C - D, Pendejo Cave

Human hairs in a loose, tangled state were recovered from Zone C - D from which charcoal was dated from 16,000 to 18,000 years B.P. Medullary and cuticle findings, similar to those in Zone E dated at 19,200 years B.P. were made. Cross-section views showed a heavy concentration of pigment peripherally.

Summary

In summary, there can be little doubt that the hair imbedded in the calcrete in Pendejo Cave is human in origin. Unequivocal acceptance

must await the exclusion of the short-faced bear and the North American lion by comparison with their hairs.

Similarly, radio-carbon or Mass Accelerator Spectrometry dating of the hairs themselves of Zone E and Zone C - D will bring unequivocal acceptance of these hairs as being of the antiquity 16,000 to 19,000 years B.P. and of human presence in New Mexico at that time.

Acknowledgements

I should first like to acknowledge Dr. R.S. MacNeish of the Andover Foundation for Archaeological Research for providing the hair specimen in calcrete from his Pendejo Cave excavations, and Dr. Don Chrisman, his very able assistant, for all the S.E.M. photographs and slides on the Pendejo Cave specimen, and library references on the subject of hair from palaeontological and archaeological sites.

The expert knowledge of Mr. Anthony Tessarolo, of the Ontario Forensic Science Centre, in preparing and interpreting the hair findings and his patience in answering innumerable questions is deeply appreciated. The faunal bone identifications of Dr. Arthur Harris, Curator of Vertebrate Paleobiology of the University of Texas at El Paso, were most useful in establishing the species present in the various zones with their chronological associations. The donation by Dr. Judy Eger, Curator of the Department of Mammalogy of the Royal Ontario Museum, Toronto, of hair specimens from the two primate species resident in southern Mexico, to rule out these species as the source of the Pendejo Cave hair specimens.

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ARCH NOTES

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Meditations on Time, Mind and Manufacture: Excerpts From the Notes of William Russell

compiled by Colin Varley

INTRODUCTION

In the summer of 1990, while visiting the historic site of Sainte-Marie Among the Hurons and my friend and colleague there, Jeanie Tummon, she showed me the most recent acquisition of the collection. This consisted of the entire artifactual assemblage of the Fournier site (BeGx-2, c. A.D. 1450), as well as the twenty-three binders of field notes and various other items from the late William Russell. The entire collection had been graciously donated by Bill's widow to Sainte-Marie with the hope that someone would be able to finish the monumental task of completing the study of Fournier that had eluded Bill. While I was certainly intrigued by the collection, it was beyond the research that I was undertaking that summer. My interest was particularly piqued, however, by two small binders of notes, Binders 24 and 25.

In these binders I found an assortment of notes, musings, and initial meditations on a variety of subjects. Most pertinent for me was the fact that Bill's main area of interest was the early Late Iroquoian occupation of Simcoe County, commonly known as the Lalonde focus, as well as issues of wider Iroquoian and Huron archaeology. This was the very topic upon which I was beginning my M.A. thesis, and I thought that there might be some useful information in those binders for my research. To this end I asked Jeanie to lend them to me for the weekend, which she graciously did.

I read the binders casually that weekend, but even at a casual glance I could see that there was material in them that should be of interest to a wider audience than just myself. Especially noteworthy at that time were some ideas that struck me as particularly current in light of what has been widely called post-processual archaeology. Most exciting, however, was the fact that Bill had preceded this chapter of

archaeological debate by at least a decade. With youthful idealism and audacity I decided that someone should bring these musings to light, and that since Bill could not do it himself, that I would play his champion. I felt that the task was especially important as Bill had published relatively little in his lifetime, and I did not want to see such a unique approach to the archaeological record fade away as just the memories of old friends and colleagues. Again I asked Jeanie if she would be willing to let me edit those two binders of notes, and though we both knew that I had absolutely no experience at such an endeavour, she agreed.

Fast forward to 1992 and to a little wiser and far more humble Ph.D. student. After having my intended project approved by Dr. Peter Ramsden as an appropriate topic for a course I sat down to really tackle Bill's copious notes. A little trepidation at actually doing the project and a lot of intellectual maturing suddenly threw the whole lot of notes into a different light. I realised that pet topics of Bill's, such as Gaussian curves and universal laws of physics which might govern human behaviour, were neither sufficiently outlined in the notes, nor discussed by anyone else in enough detail, to allow me to actually put them together. Further, a large number of the notes were actually field notes from the 1967 season at Fournier. Finally, much of the material was more and less worked out discussions of the same topics, and a good deal of overlap was evident.

As the actual bulk of usable material became increasingly reduced, however, certain themes in Bill's thinking made themselves evident. The final product here, then, is an attempt to display what I believe are the most cogent examples of arguments forwarded throughout the bulk of the two binders. I must also admit that there is a certain bias of coverage where

Bill's interests intersected with my own. Specifically these include; refining our understanding of the Lalonde period of Iroquoian prehistory, especially as it intertwines with the development of the early Huron; trying to understand the meaning behind decorative motifs on ceramic vessels, especially Lalonde High Collar pots; and how we can translate our discoveries in our laboratory of Huronia into more widely applicable archaeological method and theory. I will make no apologies for this. Rather, I would suggest that, if my own research pursuits are not enough, other archaeologists explore Bill's notes and materials for themselves.

I have mixed feelings about producing this project. For one, I never met William Russell, nor do I know anyone personally who knew Bill really well. It seems odd then that I should be the one who attempted this task. On the other hand there is a sense here of uncovering an Ontario archaeology version of the Dead Sea Scrolls or the El-Amarna papyri and flying by the seat of one's pants in translating something foreign.

Second, it is far briefer than I had imagined. While one might suggest that there is less to be gleaned from Bill's notes than I had originally thought, I would prefer to see it as presenting the most refined or cohesive examples. While the sheer quantity has been reduced, the elegance of brevity increases the impact of the ideas.

Finally, I want to make it very clear that what follows is my interpretation of the writings of another. The conclusions reached may have nothing to do with the original intentions of the author. However, I will hope that being intimate with the same sorts of questions that Bill was asking will give my hermeneutic some benefit of the doubt. We really cannot have it any other way.

THE ORGANISATION OF THE REPORT

As I stated earlier it became apparent to me that Bill's writings encompassed three large areas. One is the nature and problem of time in archaeology, especially as it pertains to our understanding of material culture change and social interaction. The second area that

receives much of his attention is the refinement of ceramic studies and interpretations. The third major occupation is Bill's attempt to try and understand how the Huron might have experienced the world - socially, temporally, and spiritually. There is a good deal of spirituality which infuses Bill's work. This is hardly surprising from a man who had been a member of the Society of Jesus (the Jesuits). While this last agenda may well be impossible to achieve in our late 20th century world, it nonetheless makes its presence felt throughout his writings. I take this as a sign of Bill's deep commitment to his discipline, to attempt a complete understanding of the people who occupied so much of his time. His ideas are not appropriation, but inspiration, and so, where they make themselves manifest I have left them.

Otherwise the report is arranged as: 1) an examination of ceramics, with some emphasis on Lalonde High Collar pottery; 2) an exploration of the concept of time; and, 3) a number of miscellaneous items which I have included for either their novelty, their intuitiveness, or simply their good old fashioned utility. The passages are all identified by binder and page, such that 24: 36 indicates the 36th page of Binder 24. Also, wherever possible, I have included a date for a passage. I have kept my commentary on each section and passage brief so as not to interfere with letting Bill say what he has to say. Finally, there are a minimum of references simply because, for the most part, these are meditations on accumulated knowledge, and bear no references themselves.

As a general introduction to the way that Bill "did" archaeology I offer this excerpt.

Archaeology is a discipline: as such it is an art and depends on skill and intuition with technological and scientific back-up, i.e. as analytical tools. There are two aspects:

1) *the creative, intuitive portion, based on a background of knowledge and experience (which is what keeps you from going off half-cocked), has its principal function in formulating new questions, new leads, new directions.*

2) *the problem then is to:*

(i) *devise methodologies of both excavation*

and analysis in order to acquire new *kinds* of data relevant to the question asked. Methods of analysis brought to bear on materials extracted is one thing; but there is also material lying in the ground for which new extractive modes are necessary in order that they can form the taxa for which new or other methods of analysis can be brought to bear.

(ii) to devise models, analytical methods by which the data can be tested, or it remains purely subjective, speculative, etc.. Pure quantification for quantification's sake, however, can be a cop-out from efforts at synthesis, generalization, or - worse - fear of being wrong (and one suspects that this has been going on too long already). Along with this is the vaguely defined notion that "if you can't measure it, it is useless". This, in its pure state, reflects the worst aspects of an outdated 19th century facet of science.

Dealing with people is what archaeology is all about, not things, and any discipline dealing with people can take numbers, statistics, and quantification only so far. Why is it that archaeologists so infrequently talk about people, and rather about things, if they're anthropologists? European prehistorians who don't pretend to be anthropologists talk more often about people than North American archaeologists who are supposed to be anthropologists. (24: 21)

SECTION ONE: CERAMICS

As an Iroquoianist in general, and as one who studied the enigmatic Lalonde occupation of Simcoe County, Bill was naturally quite interested in ceramic analysis. This did not end at

simple attribute or typological analysis, however. Long before the rise of post-processualism in the 1980's Bill was interested in the potential symbolic meaning of various decorative motifs, areas, and scales. This interest is displayed in the following passage.

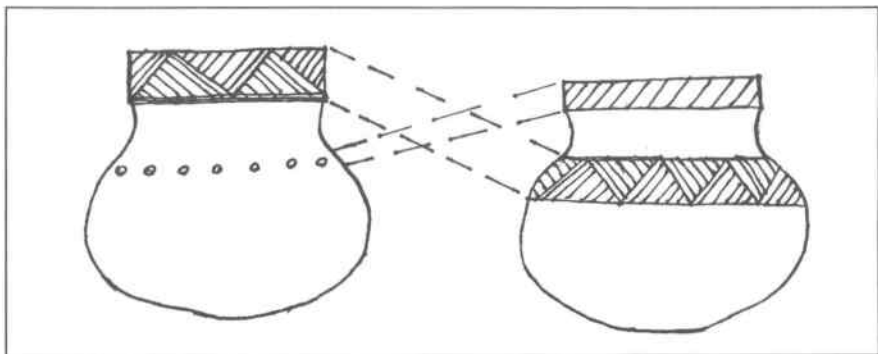
Lalonde High Collar occurs with the simplest neck; complex shoulder occurs with the simplest collar. Here you have a pair of limiting conditions (form and design). This implies a number of things: 1) More than just the collar of the pot is relevant, 2) Somehow there is some kind of a consistent world of utterance that makes even the world of Lalonde High Collar, which looks quite different from the low collar stuff, consistent with the communities expression of something. (24: 6)

The transference of design in a rotated fashion between high collared vessels and their low-collared counterparts is illustrated in the tantalizing diagram below. (24: 15)

Triangles being one of the distinguishing features of the Lalonde High Collar vessel collar decoration, it is also not surprising that the potential key to unlocking mental processes might be found in an examination of its occurrence.

ON GEOMETRIC DESIGN: TRIANGLES

So much the Huron do is involved with areas. One at least where a cone is involved with a triangle is the longhouse. Consider it abstractly: there are three points of attachment; two on the ground, and then the point of attachment in the roof. Lining up the three points produces a triangle.



Consider the triangle on vessels. Not only [is] the formal three-angled figure always cropping up, but [also] stylized triangles in other contexts, for example at Roebuck [there is] the triple punctated "face" effigy which is a stylized triangle. Triangles used to describe a human face; triangles used as an abstract design on ceramics, triangles used in the construction of longhouses. What is so spiritually satisfying about triangles; is there a deeper rationalization? (24: 52)

While a fuller exploration of this sentiment is not to be found in the notes, the following passage suggests that through a refinement in ceramic terminology, new avenues might be explored.

Lalonde [High Collar] has been defined by Ridley (1952¹) as a type. One suspects, from observation only, that it may be a ware (but again this will be established only when one defines a ware). For the sake of argument I will define a ware according to the dictionary. Then, if Lalonde doesn't fit call it a type and think of its varieties.

Ware: articles of the same class, especially manufactured articles, as those of clay, glass, etc...

Varieties of pottery are called wares, usually with a prefix indicating some characteristic (1) from name of the inventor or maker, e.g. Bottger Ware (stoneware), Doulton Ware (artistic earthenware)...(2) from the name of the place where made; as Awata Ware (porcelain and earthenware)..." (Funk and Wagnells).

On the basis of this general definition it will depend on another factor whether Lalonde is defined as a ware or not; or rather, why one calls it a ware. Ridley thinks Lalonde are a culturally distinct people; others do not (cf. Wright 1966)². If the Lalonde are considered as culturally distinct then Lalonde can be defined as a ware on the basis of the distinct cultural manifestation that produced it. On the other hand, since it is in fact named after the type-site where [it was] first found (Lalonde) (and upon which the theory was based that these people were distinct culturally) then ware can be applied for geographical reasons. (24:

25-26)

While Huron Incised might be thought of as a "type" by its ubiquity throughout the late Iroquoian period, the refinement of Lalonde High Collar to a ware, suggests a much tighter control on its production. While clearly there are examples of this kind of vessel outside the confines of Simcoe County, it never approaches the numbers produced in a geographically (Simcoe County) and temporally (c. A.D. 1400-1520) restricted area. What I think Bill is getting at here is that a "type", a widespread and chronologically less significant variety of vessel has little to tell us about the world-view of the people producing it. On the other hand, a more narrowly defined and focused production of vessels might incorporate some basic elements of mind and place. A comprehensive exploration of variation within Lalonde High Collar vessels as a group is still long overdue. The examination of important meaningful characteristics in ceramic vessels was not left to Lalonde High Collar pots, however. The possibility that a given 'ceramic community' might be identifiable through shared characteristics was certainly not a new or unique idea, but as usual Bill had a slightly different approach to the problem.

A constellation model is probably not such a good idea. If one could have at hand daily observations made over 50 years, then one might frame a constellation model for Toronto architecture. To do so for Huron ceramics would require the excavation of all or nearly all Huron sites. Perhaps a better imaginative concept - if not a model - is that of "fingerprinting". But what would this encompass?

We have generally assumed, and agreed upon, that all Huron ceramics share two or three characteristics. However, beneath this are two basal questions:

- 1) While they share some characteristics, they also discernably differ. In what way?*
- 2) How do they, in any particular community, get that way? What factors are operating to restrict this community to using but a certain few of a vast variety of geometric designs?*

We often assume that two or three principles inspire a community in its ceramic expression;

but we don't really know (why the aberrant and miscellaneous sherds? Trade and "odd-balls" is too limited and unwarranted an answer because they don't fit the preconceived and limited system imposed by the archaeologist). There may be further principles operating in such a matter it behooves one to attempt an analysis that allows their evocation. Different principles may inspire different social groups within a community; or the same ones affect different groups in different ways. And their operation need not be at all consonant with the topography of the community, i.e. in such a manner that Midden A may be seen as distinct from Midden B; or that it be limited to House X and not House Z, etc.. It might be far more fruitful to take, say, all the sherds with simple right/left obliques and see their locations; their similarities, their differences. In other words, instead of making an arbitrary group in which so many fit and so many don't, take those that do and start from there and investigate various ranges; takes the ones that don't and investigate their ranges (the ranges of lip treatment, etc.). It is in this way that miscellaneous and so-called aberrants stop being a grab-bag because the artifacts will be taken more on their own terms and the walls of the bag will no longer be rigid and definite, but stretched and even diaphanous and overlapping. The illustration of these results, various relationships, ranges, clines, etc. will be the "finger-printing" rather than a constellation model. There is a good chance that instead of assuming and imposing some principle of operation on the community, the principles - perhaps the most unsuspected - will emerge from the examination of the sherds; their characteristics in combinations. (24: 1-2)

It is clear from the preceding passage and the ones that follow that the key concept for unlocking the conundrum of ceramic decoration was in understanding how and why communities were generally limited in their decorative repertoire. This includes both the decorative elements themselves and where they are allowed to use those elements.

To take the collar alone misses a great deal. This is also utterance, area. The shape of the

vessel is first in potter's mind: that's the product; afterwards the design is applied, limited by the shape and collar height, etc.. Maybe they thought of a design type desired, then built a vessel on which to put it. While they make very sophisticated vessels there is within this an incredibly limited range of decoration, which reflects on the very range of the vessels they build. They float between certain shapes and certain designs.; but given the sheer variety possible there is extraordinary limiting. (24: 6)

The question of area available to be decorated (beaker-shoulder, high collar) seems a function of the decorative process. Varieties here and elsewhere may well have to do with experimentation; the point is not the asymmetry of design; height of collar, etc., but the totality of the area affected and in what way it is affected. THEN - what restriction of a wealth of possible combinations have been chosen within the area of interest. This is the environment of the "principles" and "influences" operating within the community. This approaches the idea of finger printing somehow. It remains to be seen; but it is to be hoped that communities close in time and space will share a common interest in specific areas of decoration and manner of carrying it out. The distribution of these various "areas of interest" over the site, their bunching and non-bunching, may be illuminating. (24: 17)

Whole design frequencies change in time and with diffusion in space, nevertheless an important variable would seem to be the limitation placed on the pottery by the collar height. On vessels with low collars it is simply not possible to incorporate any distinctive decoration beyond simple incising/trailing/impressions. This limitation automatically inhibits the cultural representation in the mind of the potter and its expression in the material. (To somewhat the same extent this is true of collar form in low collar vessels, especially small low collared vessels). As a consequence a far more significant cultural dimension as far as frequency, size, and design of many vessels is their number and distribution on any given site, i.e. why did this community make this number (in proportion to others) of vessels of

this size and shape? The ecology and sociology of ceramics derived from possible function (cooking, storage, etc.) says more in this context than design, for the design is so limited as the only, or almost only, one possible in the circumstances, that the particular cultural dimension of style (design) is reduced to almost nil. On larger vessels, that is vessels with more area on the collars, the possibilities of decoration variety increases; and then the design availability for any size of vessel increases the significance of that design.

Thus: the cultural significance of design is a factor of collar and vessel size - its import for time and space depends more on sharply varying range of technique (trailing vs. incising) and/or the sharp discretion of elements chosen (punctates vs. obliques); or the presence or absence of these (plain or decorated). (24: 38)

Such restrictions in decorative elements and areas might have had further repercussions in the overall design of the vessel as a pot in itself.

SPOUTS

No vessel has yet turned up with a proper spout. Surely such a functional feature would be obvious to potters of such sophistication, yet none are present. One reason [might] be that a spout violates the symmetry of many of the vessels of this (Iroquoian) tradition, but by no means every vessel, as obvious comparison shows. This raises the question of tradition, conservatism, etc.. [Perhaps] the shape, especially the aesthetics of the shape was more important to the potters than the utility of easy pouring. Or for unknown cultural reasons affecting the preparation and consumption of food, pouring was either unnecessary or undesired, or both. (24: 36)

Iroquoianists have often been criticised for directing so much of their attention to ceramics and so little to other avenues of analysis. Generally it has been argued that ceramics are both the most abundant artifact category on an Iroquoian site, and a very plastic medium which is manipulable, and permanent. Bill has some further comments in this regard.

Is pottery the most technologically complex

part of Huron culture, in the sense that it requires the greatest number of steps and there is a relatively small range of variation, relatively narrow limits of success? [We] don't know about basketry, leather, or wood. But even at that, pottery is a complex thing to make. Certainly in the archaeological remains it's one of the most complex parts of their technology.

It has been underrated in the literature probably because of the frequency (sheer amount of sherds) which is the wrong connection. Just because there is lots of something doesn't make it simpler or easier to make. (24: 9)

As archaeologists there are a lot of remote things that can be legitimately inferred about complexity; and one of the most immediate ways to handle complexity is to look at their pottery, because a pot combines a whole range of complex activities and choices and there are relatively narrow limits to success. So, when you look at pottery you look at one of the ways in which the culture treats that kind of a situation. (24: 9)

If you look at it and you define a culture that's making pottery and that pottery exists as a relatively closed system, and its complex range of behaviour, and success, is within very narrow limits. It seems to be somewhat extravagant to load the dice against you by making an extremely thin neck on all high collar pots. So, you ask, are they loading the dice against themselves by making an extravagantly thin neck just for the sake of grandiose display? (24: 10)

The following passage speaks for itself. It is a problem which still plagues Ontario Iroquois archaeology.

ON THE LIMITATIONS AND DANGERS OF ARCHAEOLOGICAL SAMPLES

Along with asymmetry of design on collars and castellations (i.e. castellations from the same vessel); semi-punctuation (i.e. part only of a neck or shoulder punctated); shifts in punctuation technique from rod and/or push to linear impressed on the same vessel - all of which can increase or decrease the sherd count, depending - is the procedural fact that after a number of years [of] closely observing

the same collection I could still find sherds (already sequentially numbered and catalogued earlier) which fitted [with] other sherds. The result is the further decrease in sherd-count.³ It illustrates that short-term work with a small sample could result in some very misleading conclusions since there seems to be a real tendency for sherd count and variety to decrease the longer the sample or collection is under close observation.

#926-House 2 illustrates a problem with typology and small samples: there are three castellations on this vessel (which has been reconstructed); each possesses a different design. A principal assumption in seriation and typology is symmetry (without which there can be no repeatable units on which to base classes, types, categories, or what-have-you). The assumption stands, but caution must be exercised, e.g. if these three castellations had been found separately and not subjected to careful scrutiny (and especially if missing sherds prevented their being rejoined), they would be judged as belonging to three different vessels. This seems to occur - i.e. asymmetry - in a sufficient number of instances that one must beware of typological frequencies from small samples (with large samples the number of these will have little effect on the various percentages of frequencies of "types") and of small samples from one narrow area, e.g. one midden - an important point when one considers how many site samples in Ontario come from sinking a test-pit in this or that midden only. Criteria for differentiation of vessels and vessel sherds must be based on more than design alone and other criteria which may be superficial; rather, paste consistency (same batch), technique, etc. must be considered as well.

In like manner, the profile or rim section, which has been a key for defining some Iroquoian types, can vary enormously on individual vessels, especially those on which a castellation(s) is present, depending on how close to the latter was the sherd fragment ... and which may be the only excavated remnant of a particular vessel. Especially on projecting castellations, interior curvature increases the closer the collar approaches the castellation.

Thus very little distance may be required for a collar interior in profile to change from "straight" or "convex" to "concave".

To return to the original discussion: ultimately, what the first paragraph above is saying is that careful, painstaking (and by that token time-consuming) research is the only way reasonable accuracy can be obtained even for so elementary a step as numerical count. One wonders, given the number of site reports based on a few squares excavated, how much real distortion has taken place and thereby how inaccurate is much of the picture of Ontario prehistory. (24: 44)

However, some useful ideas about all this might be proposed from BeGx-2 [the Fournier site] if count is taken of sherds that glue together, those which are unanalyzable, those which are separate and distinct vessels, etc. - even knowing that a few more years of observ[ation] might well reduce the number still further.

Again, with a reasonably good sample, and presupposing this for the moment, what has this or that number of vessels (presumably close to the total number, or from which the total number can be deduced) got to say about the length of occupation as well as usage-duration of individual vessels? How many families over how many years use how many pots? Some sites have deep and/or rich middens which on the one hand relate to village size; but only the nearest dwellings seem to use the midden closest (under the principle that a straight line is the shortest distance between two points: points of breakage to point of disposal). Thus, village size has little to do with any individual midden. It rather reflects on the usage and duration of occupancy of one or more specific houses. Then one must ask why or what factors are operating to give appearances of intense, long-duration as well as vice versa. Too long has the ethnographic evidence been oversimplified, i.e. the 12-15 year duration for Huron villages has generally been considered a fixed rubric and as predictive as a mathematical formula. In the first place, we simply don't know. There has been simply too much so-called site sampling, if it can be dignified with this title since

sampling is a careful procedural step quite distinguished from the haphazard (not random) selection of areas on a site, frequently chosen, one suspects, as the "richest"; i.e. the obvious middens, while ignoring other deposit locations. But, from the few [that] we do have, most of which desperately need re-examination (i.e. samples need re-examinations as well as sites), the [personal] impression is growing ... that there is a huge corpus ... within which are subtle distinctions and variables, of which it is imperative to take account if any kind of accurate prehistory of the Ontario Iroquois is to be obtained. To this end we could hang up our shovels for awhile. ... It behooves professional and other archaeologists, if they take the matter of cultural heritage seriously, to backwater considerably and cease temporarily the present practice of using sites for training-grounds. Everything from proper sampling to final publication demands, in light of the above, careful long-term, problem oriented planning for excavation, concurrent with a great deal of hard, monotonous work on existing collections... (24: 45).

Finally, Bill has some very intriguing ideas about the value and nature of so-called "toy" or "miniature" pots. These enigmatic finds are a source of continual interpretational disagreement.

TOY POTS

Could [pottery making] be a function for two people: one holding and turning, the other shaping. Also seen as a family exercise, that is, the process of teaching [a] daughter to make them and allowing her to participate.

Mother and daughter idea, plus absence of any good number of practice pots may come down to this: daughter being with the mother for a long time, but having little chores to do like holding something, etc. until after mother has made about twenty pots, daughter can start to make a pot without too much fear of doing a bad job. And then maybe they change roles. (24: 7)

A distinction here. At Fournier [there are] a great many practice pots. What is interesting is that there is a cut-off point. Small pots and miniature pots, almost as if there is a child's

level of experimentation. Pots don't progress from crude little things through intermediate stages up to the most sophisticated; there's a gap. (24: 7)

Why is it that one never (or hardly ever) finds Lalonde High Collar practice vessels? From one point of view the necessary skills are more easily acquired by making low collared vessels with a simple, pointed castellation. But, even so, one would expect that even with the skill once acquired it would be something else to make a high collared vessel. One suspects that there is some kind of deliberate choice (or restraint) involved. High collared vessels seem to spring up on a site like "Athene, fully armed from the head of Zeus".

Size has nothing to do with the criterion of judging whether a vessel is "practice" or not; some very small rim-sherds exhibit considerable sophistication; in fact even more skill than that needed to produce larger vessels - for miniaturization always demands more skills. The chief criterion [by which] a vessel is judged "toy" or "practice" is usually highly arbitrary, i.e. observations regarding general crudeness and irregularity, and their sheer frequency indicate this probability. However, the percentage of these pots is often very low compared with the total sample from any site, and hence, since there is no sure way of knowing one has to reject a simple a priori adult - child teaching relationship for these mysterious little vessels.

"Miniaturization" may reflect the non-functional use of these vessels, e.g. possible ritual function as opposed to everyday function, the fun of it, or even [as] gifts - the latter not so farfetched as it may seem given the ethnological evidence where dogs, firewood, and practically every imaginable object could be, and was given as a gift on some occasion or other. It seems an arbitrary decision indeed to deny the Huron the pleasure of giving a non-functional gift when we do it often enough.

When possible "toy" pots should be included in analysis (when they possess features consistent enough to be analyzed) since with them, of all instances, the passing on of the techniques and skills is enshrined archaeologically.

(24: 41)

Doesn't seem to be much evidence of utterly inept potters. Do all women make pots? Are some women singled out for their abilities in this matter and they get together and make the pots? (24: 8)

SECTION TWO: TIME

Two central problems concerning time are evident in Bill's notes. One has to do with determining the contemporaneity of house structures within a site. Faced with the problem of explaining one house at Fournier with over 500 interior pits and another with considerably less activity Bill sought ways to account for this discrepancy. He was also concerned with the task of dealing with expanding (or receding) houses at Fournier, a common feature of many Iroquoian sites. The combination of these factors led him to consider various ways of determining for how long, for what seasons, and by whom, certain houses might have been occupied.

These explorations led him to a consideration of patterns of village population, abandonment, and subsequent repopulation.

How long were Huron occupancies? The assumption is 12-14 years. But, various site reports show house structures with relatively few pits compared to the 500+ within House 2 [at Fournier], the detritus and floor accumulation, etc.. Obviously the original question must be qualified: how long was the occupation of House 2? The ethnographic evidence reveals the state of affairs at the end of the [Ontario Iroquois] sequence. By that time the number of villages and population, arable land, and necessity of more frequent community moves must be considered.

Were the houses erected, abandoned for a season and then re-occupied; or was the temporary abandonment longer; so that the former or new inhabitants could return and rebuild or modify the still standing or at least still visible structures?

Does re-occupation after a short time mean one component or two? Obviously (and traditionally) the differences distinguishing them has been differences in the trait complex. But

does length of time have any bearing? (24: 65)

In regard to ... the question of contemporaneity of units - the striking difference in castellation types in the south-east portion of the house could mean that this unit, in fact, was later. If so, then how much later to be so closely incorporated within the general design?

Again, since the contrast in castellations is so striking, what does this signify about the possibility of ceramic traditions (or at least this one aspect of one ceramic tradition) changing much more rapidly than hitherto supposed. Or, what critical factors operating at the time of the community's occupation of the house, induced an acceleration of the tradition change? Influx of another community; socio-economic-climatic forces; population explosion, etc.? However, ... postulated time ranges for change may ... only be the arbitrary operation of the archaeologist [and] a reflection of Western, cultural "time" bias. (24:58, Sep. 10/68)

ON THE VARIETY OF POTTERY "TYPES" OR "STYLES" WITHIN A COMMUNITY

Houses associated with pottery; middens associated with houses. If houses [are] associated with pottery of different time periods, is it possible to show from this that houses are different time period or vice versa? [Perhaps] the time periods assigned to different types of pottery has been incorrectly assigned.

[The] presence of a variety of ceramic types and statistical proportions hitherto indicated different time periods. But, if distribution shows these to be associated with houses that are almost contemporaneous with short periods of time between occupations, does this mean in fact that tradition was changing over a much shorter time ... (or, as above, not changing at all but contemporaneous styles). What effect does this have on seriation studies upon which many sites have been relatively dated? Are they closer in time than hitherto supposed? (24: 68)

Middens especially seemed to offer a good testing ground for some of these considerations of seasonality and contemporaneity. The requirement, however, was that much more

careful examinations of middens be made in order to procure the necessary data.

It may be possible with middens, especially deep ones, and after taking careful note of the strata and subtleties of the ash within them as well as the particular animal bones, to obtain some information on the manner in which they were laid down, for example seasonally. The animal species, even wood, within such strata, when analyzed may show the seasonal pattern. If so, then a valuable indicator of length of occupation or at least each particular midden [might be discovered]. (24:84, 1967)

Continual summer occupation [at the Fournier site] over a number of years could easily account for the depth of the peripheral middens, rather than the decade or so of year-round occupation by a conventional village.

It would also mean, probably, a longer span of occupation, i.e. while regular villages may have moved every decade or so, summer fisherman would return season after season as long as the supply remained - and other factors made it worthwhile.

This might well be indicated by a ceramic sequence; fifty years or more perhaps; and a fishing station would account for a wider variety of design styles and attributes than a single homogeneous community might produce.

It could explain the trade-axe with the presence of earlier pottery, i.e. the axe arrived towards the end of the period during which the site was used; the early pottery, of course, at the beginning. Between them one might obtain an idea of time span involved. Analysis of independent middens, individual discreet middens, may assist such a study, presuming each year's occupants more or less dumped their trash in the same area during one season.

But while the above is interesting and insightful, there arise a few questions. Why did they stop using the site? If there were more trade and/or European goods one might speculate that occupation ceased because of the socio-political events ending in destruction and abandonment of the land in A.D. 1648-49. But apparently it ceased before this. Why? Did their regular villages become so far removed

from the area that it was easier to fish elsewhere, for example the Narrows [between Lake Simcoe and Lake Couchiching]? (24: 81, 1967)

All the while that he was trying to come to terms with the forces of relative age and seriation, however, Bill was also involved in an intellectual struggle about the very nature of time itself. Time may not, in fact, be experienced by everyone in the same way, and yet we must force our time frame on the archaeological if we are ever to understand it.

Time, Distribution, Typology

There is [the] possibility that with some thinking, three of the major assumptions of Americanist archaeology are thrown into question by Iroquois prehistory.

Time: Without getting overly philosophical about it, time can be considered from two points of view, the objective and the subjective. The former is that motus, motion, duration, "ticking of the universe" about which philosophers have pondered for millennia. Subjective time, on the other hand, is the way time is viewed and experienced by individuals and groups of human persons ... and for the purpose here, we must consider that the individual's concept of, and reaction to, "time" is quite capable of affecting what he does and makes, i.e. his artifacts.

The archaeologist experiences and measures time in one way. It is possible that for the Iroquois it was, by comparison, foreshortened. If so then rates of change and much of what we measure by use of seriation and typology will be distorted since by applying our concept of time to materials that are not subject to those standards, we will be, in fact, obtaining results that ... aren't so. We assume certain rates of diffusion, distribution and change, and while ready to acknowledge that these vary, even by our standards, we often conclude that "for unknown reasons" such-and-such did/did not change or shift at a certain rate. Supposing one of those "unknown factors" is this problem of time? It could affect drastically our attitudes to cultural change in various cultures, in fact the whole diachronic scale; principally by shortening, but possibly by other ways as

well. One or another element of a culture will change in time (objectively); but the change rate will be in terms of that culture and according to its time view ... which, when discerned, will have to be translated (or at least the data will have to be translated) into our own terms and units of measure. Otherwise we will not only misinterpret it, we won't even understand it: it will be meaningless data except insofar as artifacts (from another point of view) can be said to be "frozen" in time - which is a misleading phrase. They are frozen, fixed by physico-chemical forces so that they retain their material characteristics, and in this sense they perdure. But, their all important associations, relationships, contexts, are not so fixed; they were determined within a cultural context, and one important and overlooked aspect is that culture's time which, as already observed, affects the individuals who carry it, who operate within it and according to it, and the artifacts must reflect in some and various ways this cultural temporal dimension. (24: 50)

Even the earliest Native-European contact may have had a profound effect on the problem of different time frames. Bill argues that indeed, physical objects may have had a hand in reconstructing historic Huron conceptions of time.

What was the effect of the introduction of the iron axe on slash and burn [agriculture practices]. More forest cleared faster; rapid, immediate fulfilment of ... requirements, but also quicker exhaustion, therefore [the] necessity of shifting villages more frequently. In other words, was the ten year shift of the 17th century a speeded up feature? (25: 9)

By changing such a large scale time frame as village relocation periods (and the concomitant Feast of the Dead), French goods might have played other interesting roles in the renegotiation of Huron ethnicity.

The problem of overemphasis on chronology can impede our understanding of other, equally, if not more, important processes at work in the archaeological record.

If one were to make a comparative study of, say, the kitchens of the 1930's with the kit-

chens of the 1970's we'd find that in some ways they were the same; in other ways different. We would also be able to find out what makes the difference before we ever found out anything about time.

Perhaps Carbon-14 is the only way we will ever have of finding chronology. If so, this is alright; but when there is no way of knowing time we spend our efforts working out techniques of inference which, in effect, is blinding. Therefore, if there are other ways of finding time we can discover how our archaeological preoccupation with time blinds, and then find out what seriation really means; what characteristics of sites really are; what are the characteristics of complexes. This would stimulate questions instead of leaving us in a fog of obscurity.

We never look at, for example, food and food preparation as part of the story. We never would get to kitchen behaviour and the different ways in which this affects food or anything else. In archaeology we deal with "processes" or something and miss the rest. That kitchens are of the 20's, the 30's, the 70's affects food. Some things either go or they do not, because of food to say nothing of dining out formally; eating on the patio informally; easily prepared food as opposed to "old-fashioned" food, which have different ingredients as well as different preparation times. This also affects nutrition.

All this would be ignored if we simply seriated kitchens and let it go at that. To do a site seriation we have to, by that very process, ignore things; but things ignored mean we do not get any real answers. (24: 119)

SECTION THREE: MISCELLANEOUS MUSINGS

I have included this short section as a grab-bag of some of the more provocative passages which did not fit well into a larger theme. Some border on the profound, others are simply interesting little vignettes of a mind attempting to grasp as much of a past societies world as it could.

This first passage, though not dated, clearly seems to me to preguess the current archaeological flirtation with post-modernism.

North American archaeology has grown on the two assumptions that: 1) culture is an a priori thing existing before and along with the artifact; 2) that culture is something brought forth by the manipulation of the artifacts by the archaeologist. There may be a third way of considering it: namely, that what is produced and what is important is the personal relationship of archaeologist to artifacts, i.e. the observations of any given archaeologist. It offers, when examined, a far different, more enriching perspective; for from the accumulated observations of archaeologists and one's own with one's own materials, comes a knowledge of whatever culture one studies that is unique. But this may not be the most important aspect of it. It is, rather, that this or that statement is not the last word about what this culture is, but rather culture (a particular culture) is considered as a vast, complex, web of which its knowledge is inexhaustible. Like the reality the "new science" is aware of it is not what can be reduced to a mathematical model that is real, but rather that reality is an inexhaustible thing; multifaceted and interrelated in constantly unexpected ways which will never be finally defined...but which is worth investigating from one or another facet nonetheless. (24: 1)

Here Bill fully embraces the idea that one can only have a subjective, and imperfect, understanding of the material. Again, to use a post-modern term, it is an extraordinarily hermeneutic way to do archaeological interpretation. Only through combining and recombining facets of knowledge provided by others can we ever hope to approximate a true understanding of the complex beasts we call past societies.

This next excerpt I have included simply because I think everyone who has done Iroquoian archaeology has wondered how long it might take to build a longhouse.

REGARDING TIME REQUIRED TO GATHER BUILDING MATERIAL FOR HOUSES (Feb. 4/70)

Number of Posts Forming the Exterior Walls of House 2

North Windscreen: 10

North Porch: 44

West Wall: 204 (approximately 6-8 missing at edge of small gravel pit)

East Wall: 233 (gaps approximated)

Thus, omitting interior partitions, bedposts, etc., wall totals = 491

Since the plan/graphs clarifying stains [are] not [at] hand for portions of the east wall, and since I underestimated deliberately on possible numbers present in those sections, for the sake of the present rough calculation the total number of wall posts [will be] expanded to 500 posts (which is not an exaggeration).

Clarke speaks of experiments with cutting with Neolithic axes. It takes 5 minutes to cut a 17 cm. (6 3/4 inches) pine with a polished axe. Most posts in House 2 [at Fournier] are of cedar and range beneath this in diameter, so the calculation will indicate but roughly the maximum or at least much longer time than was in fact actually needed, presuming that the same or similar felling technique was used; in other words, most of the posts under the postulated ideal conditions would have taken even less time to fell (but the extra can be allowed for, what with trimming the branches and otherwise preparing the posts).

At that rate: to cut and trim the posts necessary for walls, porch, and windscreen of the recovered portion of House 2 would be 2500 minutes or 41.7 hours. If one allows generally twelve full daylight hours in the late spring or early summer, this means that sufficient dressed posts for House 2 (the portion recovered) would be obtained in three and a half days of full time labour by one man working non-stop from dawn to dusk. This does not count factors such as rest periods, etc.. [There were] probably no meal breaks, since [ethnographically] Hurons ate but twice a day. A modest team of four men (10.5 hours) or five men (8.5 hours) could, under ideal conditions and at full speed, thus do the job in less than one day! (24: 59-60)

I have included the following passage, again, not because I think that this is a burning question in Ontario Iroquoian archaeology, but simply because I thought that the resolution of the problem was so novel.

If [a] house was to be built, and for social reasons was to be built very long, then aerodynamically it would not be advantageous to arrange a long side-wall so that it directly faced the wind, since this increases the total area against which wind-pressure could be maintained. As a consequence north-west orientation is preferable to reduce this pressure; and strong walls a necessity. At the same time, with such a long structure, were it to be placed east-west, while it would present the least possible area towards the prevailing wind, this same wind would then be directed down the centre, making the structure a veritable wind-tunnel and extraordinarily uncomfortable, if not impossible, to live in. Hence, it was oriented north-west.

Further, the north-west end of the structure shows more ingenuity related to this problem. Since the most advantageous (on [the Fournier] site at least) is north-west it still does not eliminate the thrust of the prevailing wind with at least a partial wind-tunnel effect. Hence the double partition with offset, instead of opposite, entrances; the outer one of which also had an ell or wind-screen on its north-west side to protect it. The whole design acted as a series of baffles to break up the force of the wind. On the whole, given the size of the structure that was felt to be necessary, this combination of features manifests the best solution possible from which to gain the maximum protection from one of the most formidable elements - the wind - and at the same time the minimum danger of the structure being damaged by the same wind. (24: 57, Sep. 10/68)

Finally, I had to include this brief comment. Although I might not fully agree with the genre of literature, I think that the main point is well taken.

What archaeology needs, quite seriously, is "archaeological science-fiction" - a literary genre used elsewhere successfully through which new ideas can be aired without risk of being scorned in the formal academic forum. (24: 122).

CONCLUSIONS

With these passages from the notes of

William Russell I hope that some new light has been shed on some lingering problems in archaeology in general and Iroquoian archaeology in general. My main point in this exercise was to make sure that what I thought were important and provocative statements about our discipline be shown some light. There is no credit for me except in having had the good fortune to think of it first.

If there is any larger message that I think we should get out of this project is that we still have a long way to go before we have finished answering some fundamental question about archaeology that have been around for a generation (at least). As Bill himself said, maybe we need to hang up the shovels for awhile and do some of the less exciting, but in the end more fulfilling, tasks of archaeological fieldwork and interpretation. There are a large number of collections out there now (Fournier included) that could use a good re-examination.

On a more personal level I hope that some interest in the Lalonde problem in particular can be rekindled, so that there will be some more people to talk with. I also hope that in some small way I have helped save Bill's thoughts and ideas from the forgotten back shelf.

ACKNOWLEDGMENTS

I would like to thank Jeanie Tummon and Sandra Saddy of Ste. Marie Among the Hurons for providing me with Bill's notes and related documents that helped me decipher what was going through Bill's mind.

NOTES

1. Frank Ridley, The Huron and Lalonde Occupations of Ontario. *American Antiquity* v.17(3):197-210.
2. James V. Wright, The Ontario Iroquois Tradition. *National Museums of Canada Bulletin* 6 no. 210.
3. And presumably in vessel or rim counts. ■



FROM THE O.A.S. OFFICE

Charles Garrad

ANNOUNCING A FALL "DIG"

A dig is planned for OAS members on a Petun site near Collingwood from September 18 to 26. Up to twenty volunteer participants will be accepted. It is essential that some of the participants have experience in detecting and interpreting settlement patterns. In return for your expertise, and helping less experienced volunteers, you may be part of the first crew to outline a complete Petun longhouse, never before accomplished, although this cannot be guaranteed. The minimum participation is one full day, the maximum the full period, but participation must be by preregistration and confirmation by the OAS.

Details will be finalised by the time you read this. So if you are interested, please contact the office at once by phone, mail or fax, so that more information and registration information will be sent to you by return mail. There will be no charge for participation. Passport-to-the Past members might note that this work is at a more advanced level than the introductory field school arranged for August, with the opportunity to get another stamp.

NOTICE OF OFFICE CLOSURE

During the next two months the office will be closed at times because of the Passport-to-the-Past Field School and the OAS Fall Dig, particularly August 19-30 and September 17-27. The telephone recorder and fax machine will be on, but there will be a sign on the door "Gone Digging". Usual service will resume September 28.

NOTICE OF APPOINTMENT OF NOMINATING COMMITTEE

A Nominating Committee of three members has been appointed to prepare a slate of seven or more candidates for office as Directors of The Ontario Archaeological Society during the

business year 1994. The Committee members are: Bob Burgar (Chair), Bernice Field and Rick Sutton. The Nominating Committee now solicits nominations of consenting candidates from members. Written nominations may be forwarded to the Nominating Committee in confidence care of the OAS Office, the envelope being clearly marked "Attention - Nominating Committee". The Chairman of the Committee can be reached at home (519)853-4483. The Nominating Committee will present its slate and report to the Board of Directors and general membership at the Annual Business Meeting in October, at which time nominations may be made from the floor before closure. An election, if necessary, will be held by mailed ballot accompanying the November-December 1993 issue of ARCH NOTES.

This notice is intended to comply with Article VI of the Society's Constitution.

NOTICE OF ANNUAL BUSINESS MEETING

The 1993 Annual Business Meeting of The Ontario Archaeological Society will be held at the Sheraton Inn, 6045 Stanley Avenue, Niagara Falls, Ontario on Saturday October 23, 1993 at a time which will be announced in the Symposium program. All Society members in good standing may attend. Copies of financial statements for the preceding fiscal year, and various reports, will be available, with an Agenda. To ensure there is time for adequate consideration, motions submitted in writing in advance will be added to the Agenda and given precedence over those verbally from the floor. Written motions intended for the Agenda should reach the Society's office at least one week prior.

This notice is intended to comply with

Article V(3) of the Society's Constitution.

NOTICE TO TWENTY-FIVE YEAR MEMBERS

Members who have held continuous membership in the Society since 1968 or earlier are entitled to wear the special Twenty-Five Year Member lapel pin and receive a testimonial Certificate. To date, twenty-one members have been so recognized and the Society's records indicate that ten more may be eligible in 1993 if their membership since 1968 has been continuous. These are: AUSTIN, Ted; KENYON, Ian; KENYON, Thomas; KIDD, Kenneth E.; NIXON, Charles; O'BRIEN, Roberta; REID, John; SAVAGE, Dr. Howard; SHROPSHIRE, Jim; TAMPLIN, Dr. Morgan. Subject to no objections being received at the Society's office, these members will receive their pins and Certificates at the Annual Banquet, Sheraton Inn, Niagara Falls, Saturday October 23. Any other eligible member who has not been recognized should contact the Society's office.

NO FEE INCREASE FOR 1994

The 1994 membership fees will be announced at the ABM. It will be proposed that they remain the same as at present, without an increase for the third consecutive year. Any member who wishes to object to this and insist on a fee increase may propose a motion to that effect. The Constitution will not be amended this year (!)

PASSPORT TO THE PAST PROGRAM UPDATE

Ten Volunteer Opportunity Bulletins have been mailed this year to date to program members, including news of a Passport Field School to be held later in August and of the OAS Fall Dig in September. The Ontario Heritage Foundation became a Passport Agency in 1993 and has provided several volunteer opportunities. If you are not receiving Volunteer Opportunity Bulletins but believe you should be, please contact the office.

WANTED - VOLUNTEER SURVEYOR

A volunteer surveyor with transit and other necessary equipment is wanted to create a contour map of an archaeological site near Collingwood on which the Passport-to-the-Past 1993 Field School and a later dig will be held. The work will take less than a day but free overnight accommodation and a tour of the area will be provided for one or two people so that you may have an enjoyable mini-vacation to the Georgian Triangle area. Please contact the office.

1993 SUMMER BUS TRIP UPDATE

An itinerary for the bus trip arranged for the weekend of August 14 & 15 was enclosed with the previous issue of ARCH NOTES. Of the many events planned, attendance at the Saugeen Pow-Wow is considered a highlight, but at least one archaeological site, a museum or two, and even a nuclear reactor are included. Space is available on our chartered bus and throughout the tour, but overnight hotel accommodation at Port Elgin is not easily obtained. Last-minute (i.e. up to August 11) applicants will be accepted subject to our being able to get extra hotel space.

A rare and much-sought-after book THE HISTORY OF THE COUNTY OF BRUCE 1907-1968, Volume II by Norman McLeod, has been generously donated to the event by Ellen Blaubeurgs, to be raffled or auctioned during the trip.

1994 OVERSEAS TRIP UPDATE

More than forty members have recorded their interest in a possible trip to Turkey and Greece in September 1994. If you wish to add your name, please contact the office. There is no obligation.

THE C. W. JEFFERIES COLLECTION OF HISTORICAL DRAWINGS AND PRINTS

For many years the C. W. Jefferies collection of historical drawings was owned by Imperial Oil Limited. The drawings were very popular with Museums for backdrops to displays. Imperial Oil readily gave permission to reproduce and use the drawings. On hearing that Imperial Oil no longer owned the

collection, OAS staff enquired about its current status and obtained the news that Imperial Oil has transferred both possession and ownership to the National Archives of Canada. Let us hope that the collection is still as accessible and cared for as it was.

STRATEGIC PLANNING IN THE PAST

The OAS' present Strategic Planning Committee has a long ancestry in the "Aims" Committee of the OAS' early days. The "Aims" Committee held "Aims" Sessions with the membership to "discuss ways and means of strengthening and intensifying the activities of the OAS towards the fulfilment of its 'purposes in life', as identified in the Society's Constitution."

The 1956 Executive advocated a policy of "controlled expansion" for the OAS to include:

(a) Activity groups (b) "Progressive labs" (c) Membership increase (d) drive for funds (e) a permanent "home". Topics current in March 1957 were publications, finances, and the possible formation of Branches in the future (AN56-1, AN57-3).

LECTURES AT THE MUSEUM IN NEWMARKET

Curator and OAS member Beth Sinyard has sent early details of a Fall lecture series scheduled at the Elman W. Campbell Museum, 543 Timothy Street, Newmarket L3Y 1R1. Lectures begin at 7.00 p.m. Mark your calendar for:

September 17: "Heritage Legislation and your Old House" by Wayne Morgan of Newmarket LACAC

October 15: "Archaeology of an Iroquois Village" by Gary Warrick of the Ministry of Transportation.

HAMILTON-WENTWORTH RESEARCH AID

The Hamilton-Wentworth Heritage Association has released Who's Who in Heritage in Hamilton-Wentworth in 1993. This is a compendium of heritage resources, contact names and addresses in the area. 54 pages, card cover, cerlox binding, \$3 from Stew

Leslie at (416)389-2394. May also be seen in the OAS office. Thanks for the donation, Stew.

SIMCOE COUNTY RESEARCH AIDS

Elinor Sullivan of Penetanguishene, formerly Elinor Scott of Ste. Marie-among-the-Hurons, has produced two useful research aids of interest to all Simcoe County researchers:

An Index to Hunter's History of Simcoe County. 63p. Cerlox binding. \$10; and

Bibliography of Simcoe County, Ontario, 1790-1990. 269p. Cerlox binding. \$30; each plus \$3 postage/handling. Mail orders with payment to:

SBI, P.O. Box 1081, Penetanguishene, Ontario L0K 1P0.

We note that the bibliography covers the last two hundred years and does not include the earlier Huron period.

WATERLOO COUNTY RESEARCH AID

The Waterloo Region Heritage Foundation announces publication of Waterloo County to 1972: An Annotated Bibliography of Regional History. This 768 page volume of 4,531 items includes 1,900 authors, over 1,000 places, 4,700 corporate subjects, 21,500 personal subjects and more. Prepaid orders to Waterloo Regional Project, 16 Caribou Crescent, Guelph, Ontario N1E 1C9 are \$45; orders without payment requiring an invoice \$55.

"IN THE STEPS OF OUR ANCESTORS"

This is the title of a new exhibit on Native North American footwear at the Bata Shoe Museum, located at 131 Bloor Street West, 2nd floor, Toronto, Ontario M5S 1R1. The museum is open daily except Mondays 11.00 a.m. to 6.00 p.m. Admission is \$3.00 adult, \$1.00 seniors and students, \$6.00 families. For further information call (416)924-SHOE (7463).

NOTICE TO LIFE MEMBER NOLA CREWE:

Several mailings to you at your last reported address have been returned to the OAS office

continued on page 17

M.C.T.R. NEWS

APPROVAL OF ARCHAEOLOGICAL LICENCES FOR THE PERIOD MAY 10 - JULY 14, 1993

CONSULTING

93-012	Elizabeth Alder
93-069	Rita Griffin-Short
93-087	Peter Sattelberger
93-108	Phillip J. Wright
93-109	Patrick Julig/Kenneth Buchanan
93-111	Malcolm Horne
93-112	Christopher Andreae
93-117	Scarlet Janusas
93-121	Robert Burgar
93-122	Robert Burgar
93-115	Philip Gerrard
93-099	Ann Balmer
93-101	Bud Parker

FIELD SCHOOL

93-120	Martha Latta
93-105	Dean Knight
93-103	John Triggs
93-104	John Triggs

UNDERWATER

93-071	Arthur Amos/Scarlet Janusas
93-107	Donald Martin
93-118	Kenneth Cassavoy
93-091	Ian Edward King
93-062	Scott McWilliam
93-100	Douglas Goode

CONSERVATION

93-110	Scott Hamilton
93-116	Helen Devereux

CONSERVATION - SURFACE COLLECTING

93-035	Diane Delin
93-119	Jay Leather
93-113	Dennis Smyk

EXCAVATION

93-098	Diana Gordon
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SURVEY & TEST EXCAVATION

93-082	Thomas Ballantine
93-102	Gary Crawford

PLANNED GIVING AND THE ONTARIO ARCHAEOLOGICAL SOCIETY - LIFE INSURANCE

Most of us enjoy our membership in The Ontario Archaeological Society. Over the past few years you may have heard about the Society's need for money to enable it to become self-supporting, to try and do away with its need to rely upon the taxpayer. A start was made toward this end with the inception of the Endowment Fund in 1989 but your help is still needed.

Join us in meeting this exciting challenge.

The cost of running the OAS is expensive. And we know it can be discouraging not to be able to give a donation large enough to "make a difference"; after all how far can \$500 go toward providing enough interest to run the OAS?

Let us reassure you, donations of any size can go a long way. And you would be amazed at how much even \$50 can do when applied each month to a Planned Giving Program.

"The OAS gratefully acknowledges a generous bequest in the amount of \$15,000."

This is the kind of gift you can leave to the Society when you establish a personal Planned Giving Program through the use of life insurance.

The monthly payment and amount of bequest will vary

with personal circumstances but the above is reflective of the dramatic assistance you can provide to the OAS (or other charity) when you participate in such a program. Other advantages include:

1. Life insurance is not subject to capital gains tax, or probate fees but rather is paid directly to the OAS.
2. Values are guaranteed and not subject to market fluctuations as are stocks, bonds, etc.
3. Premiums qualify as charitable donations in the year paid, which in some circumstances can represent virtually 100% off-set against tax otherwise payable.
4. The personal satisfaction of knowing that this gift *will* make a difference to the OAS.

Several life insurance companies offer a life insurance program suitable for charitable giving. However, as of writing we are not aware of any that will offer such a product to individuals beyond their seventy-fourth birthday.

If you would like to help by arranging a personal Planned Giving Program, please contact your life insurance representative or complete the coupon below and send it to the OAS.



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I am interested in obtaining more information about
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I understand that this request for information does
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The Ontario Archaeological Society Inc.

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