



ARCH NOTES

MAY/JUNE 1985

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newsletter of

The Ontario Archaeological Society

INC.

**The Ontario Archaeological Society (Inc.)
Twelfth Annual Symposium**

***ARCHAEOLOGY
OF THE
LAKE HURON & GEORGIAN BAY
DRAINAGE BASINS***

at the
Hampton Court Motel
1210 Wellington Road South
London, Ontario, Canada

October 26 - 27, 1985

CALL FOR PAPERS

The Ontario Archaeological Society symposium provides an international forum for the exchange of ideas and information. The theme of this year's two day program focuses on current prehistoric and historic archaeological projects in the Lake Huron and Georgian Bay drainage basins. An open session will also allow papers on other Ontario topics to be presented. Written abstracts (200 word maximum) of proposed papers are requested prior to their acceptance by July 1, 1985.

Information and Preregistration Kits available from:
1985 OAS Symposium Committee
55 Centre Street
London, Ontario, Canada
N6J 1T4
(519) 433-8401



archaeological licences

1985 LICENCES TO DATE

This is the second set of Archaeological licences issued by The Honorable Susan Fish, Minister of Citizenship and Culture, Government of Ontario, for the 1985 field season. As of May 7, 1985, the Minister had issued 59 licences for this season.

<u>Applicant</u>	<u>Licence</u>	<u>Project</u>
Ahrens, Mervin	85-39	Survey activities in the District of Rainy River
Ambrose, Mary (1)	85-23	Salvage of the Middleport (AgHa-2) site, Onondaga Township, Brant County
Ambrose, Mary (2)	85-22	Consulting activities in the MCC's South Central and Southwestern Regions
Angus, Timothy	85-40	Survey in Puslinch, North Dumfries, South Dumfries and Flamborough Townships, in Wellington, Hamilton-Wentworth, Waterloo and Brant
Archaeological Services Inc. (1)	85-53	Consulting activities in the Province of Ontario
Arthurs, David	85-12	Conservation activities in the MCC's North Central Region
Cataraqui Archaeological Research Foundation	85-25	Conservation activities in the Province of Ontario
Conway, Thor	85-13	Conservation activities in the MCC's Northeastern Region
Crawford, Gary	85-54	1. Field school at the Wallace Site 2. Survey in Aj-kGx and Aj-kHa Borden units
Davis, Bryan	85-26	Underwater archaeological survey in Sturgeon Lake
Ferris, Neal	85-37	Salvage of the Bellamy site
Finlayson, William	85-55	Archaeological survey and test excavation of Iroquoian sites within a 9-mile radius of Crawford Lake, Esquesing, Nelson and Nassagaweya Townships, Halton and East Flamboro Township, Hamilton-Wentworth Regional Municipality
Fitzgerald, William	85-41	Excavation at the Ivan Elliot (Schroder) Site (AiHa-16)
Fox, William	85-27	Conservation activities in the MCC's Southwestern Region
Garrad, Charles	85-42	1. Excavation of the Peacock (BcHa-5) site 2. Conservation activities in the County of Grey, Dufferin and Simcoe

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<u>Applicant</u>	<u>Licence</u>	<u>Project</u>
Gregory, Fred	85-28	Underwater archaeological survey of the wreck of the "Lillie Parsons"
Hamalainen, Peter	85-63	Survey in the area of Old York, (area bounded by Don River, Queen Street, Peter Street, Front Street)
Horne, Malcolm	85-43	Survey in the Regional Municipality of Waterloo and Blenheim Township, Oxford County
Kapches, Mima (2)	85-51	Excavation at the Huff's Island Site (BaGh-24) and the Eldorado Site (AIGO-41)
Kenyon, Ian	85-29	Conservation activities in the MCC's Southwestern Region
Kirby, Michael	85-30	Archaeological survey of the Beaver Valley Region
Lambert, Peter	85-44	Consulting activities in the MCC's North-western and North Central Regions
Latta, Martha	85-45	Field school at the Auger Site (BdGw-3)
Lennox, Paul	85-31	Consulting activities in the MCC's South-western and South Central Regions
Lennox, Paul	85-56	Archaeology of the Barrie Area 1. Survey in the Townships of Innisfil, Vespra and Oro 2. Salvage excavation of BcGw-27, Barrie
Marshall, George	85-46	Conservation activities in the Regional Municipality of Hamilton-Wentworth and Brant County
Mayer, Pihl, Poulton and Associates Inc.(1)	85-14	Consulting activities in the Province of Ontario
Mayer, Pihl, Poulton and Associates Inc.(2)	85-19	Salvage excavation of the Quaker Park Site (AgGt-36)
Mayer, Pihl, Poulton and Associates Inc.(3)	85-20	Salvage Excavation at the Elmdale Mill and archaeological assessments of the Rogers and Fothergill mills
The Metropolitan Toronto & Region Conservation Authority	85-57	Excavation at the Boyd and Seed Sites
Moerschfelder, Fred	85-47	Conservation activities in the Regional Municipality of Haldimand-Norfolk
Molyneaux, Brian	85-32	Conservation activities at Petroglyph, pictograph and rock structure sites in the Province of Ontario
Museum of Indian Archaeology (1)	85-38	Consulting activities in the Province of Ontario
Museum of Indian Archaeology(2)	85-59	Survey in London area, test excavations on known sites and detailed test excavations at the Pond Mills site (AfHh-2)

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<u>Applicant</u>	<u>Licence</u>	<u>Project</u>
Museum of Indian Archaeology (3)	85-52	Salvage excavation of the Keffer Site (AkGv-14)
Nixon, Charles	85-48	Archaeological survey in the Townships of South Dumfries and Burford, Brant County, Townships of Blenheim-Blandford, Oxford County, Township of North Dumfries, Regional Municipality of Waterloo.
Pengelly, James	85-33	Conservation activities in the Regional Municipality of Niagara
Polley, Andrew	85-49	Underwater survey of the wreck of the "Mayflower", Kaminisseg Lake
Ross, William	85-15	Conservation activities in the MCC's North Central Region
Settlement Surveys Ltd.	85-34	Consulting activities in the Province of Ontario
Steinbring, Jack (1)	85-17	Excavation at DkKr-4
Steinbring, Jack (2)	85-18	Excavation in Forgie Township, Kenora District
Stewart, Bruce	85-60	Archaeological assessment of properties at the junction of La Salle Causeway with Place d'Armes Street
Storck, Peter	85-61	1. Survey in Grey, Durham and York Counties 2. Excavation of the Udora Site 3. Survey and test excavation of the Newcastle Site
Trent University	85-62	Field School at Marmora Ironworks Site (BcGk-7)
VandenHazel, Bessel	85-50	Underwater survey of the wreck of the "John Fraser", Lake Nipissing
Vandermaas, Christian (1)	85-35	Underwater survey for the wreck of the 1780 warship, "Ontario", Lake Ontario
Warrick, Gary	85-16	Archaeological exploration, survey or fieldwork in Innisfil Township, Simcoe County

* * * * *

RADIOCARBON ANALYSIS OF MILLIGRAM-SIZED SAMPLES BY ACCELERATOR
MASS SPECTROMETRY

The IsoTrace Laboratory is a multi-disciplinary centre established at the University of Toronto for research in ultrahigh sensitivity analysis of materials and the development of new apparatus and procedures for use in this field. As a national facility, IsoTrace makes the results of this research and development available as analytical services for a wide range of academic and commercial research endeavours, including geology, materials science, medicine, archaeology and physics.

Mass spectrometry is the technique of separating and counting the constituent atoms of a sample according to their mass. Isotope ratios are usually measured relative to a standard -- at IsoTrace the US National Bureau of Standards Oxalic Acid I contemporary standard is used for carbon isotope measurements. At least two samples of this standard are loaded with each set of unknown samples and all are analysed in a similar manner. While extremely small machine-ready samples (less than 1mg) can be analysed the preference is for a sample containing a minimum of 5mg of carbon. The following are the preferred minimum size for some common materials: Charcoal - 20mg; wood - 25mg; bone - 100mg and shell - 80mg.

The type of sample material, the age of the sample and the statistical accuracy required all make varying demands on the resources of the laboratory. For example, the extraction and combustion of collagen from bone requires roughly twice as much preparation time as the combustion of charcoal. The spectrometer time required to date a 40,000 year old sample is seven times as long as that needed to date a 5,000 year old sample to the same precision. Dating a sample to 1% precision requires ten times as much as dating the same sample to 3%. Thus the pricing of analytical services is based upon the actual usage of the laboratory resources. Some examples are given in the table for wood, charcoal or shell samples (bone samples cost \$70 more). The prices are for quantities of less than five similar samples. Analysis rates for larger quantities of similar samples are available upon request. Further information is available at: IsoTrace Laboratory, University of Toronto, 60 St. George St., Toronto, Ontario, M5S 1A7. Telephone: (416) 978-2241, Telex: 06-23887.

Age (years BP)	Precision (%)	Precision (years)	Cost (\$)
1,000	1	80	600
1,000	0.5	40	1,350
2,000	1	80	620
2,000	0.5	40	1,420
5,000	1	80	650
10,000	3	240	470
10,000	1	80	770
30,000	3	240	620
40,000	7	560	620

* * * * *

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A GENESEE POINT FROM EASTERN LAKE SUPERIOR

by Thor Conway

A series of seasonal Archaic campsites line the post-Nipissing beach ridges on the upper St. Mary's River near Sault Ste. Marie, Ontario. In this area, which is the outlet for Lake Superior, several of these sites have been tested (Conway, 1980). During the summer of 1984, archaeologists from Ball State University joined a Heritage Branch volunteer crew in the expanded excavations of the Marks Bay site (CcIc-8). The work was carried out in conjunction with Sault Ste. Marie Conservation Authority as part of a preservation planning study.

The Marks Bay site lies on a prominent beach ridge which dates between 1900 BC and 1600 BC. Two block excavations uncovered 51.15 square meters (550 square feet) in 1984, in addition to the original 61.28 square meters (175 square feet) opened up in 1977. Several hearths, post molds, and tool making areas appeared in the site. A complete report is being prepared for publication by the project archaeologist Mark Anderson. One artifact recovery deserves special attention for the information that it provides concerning prehistoric trade and cross-dating of the site.

An unmistakable Genesee point was excavated from the Marks Bay site in 1984 (Figure 1). This stemmed, carefully flaked projectile was knapped out of Onondaga flint from Lake Erie. It is the first Genesee point ever documented in the eastern Lake Superior area. The exotic raw material and the presence of a broadpoint type of projectile contrast strongly with the small, locally made Late Archaic projectiles found at the Marks Bay site. Measurements for the Genesee point are given in Table 1.

In Ontario, Kenyon has explored the subject of Late Archaic broad points including Genesee points in a series of articles (1978 a & b, 1980 a & b, and 1983). His analysis of their metric attributes and spatial distribution established several cultural and temporal patterns. The Marks Bay Genesee point is carefully flaked so that it has sharp edges, a concave base and a thin crosssection. In shape, it matches an example from the Davidson site on the Ausable River in southwestern Ontario (Kenyon 1980a: 30, Figure 4, #3) as well as several from the Surma site/quarry workshop on Lake Erie (Kenyon, 1980b).

A chronologically sensitive decrease in the size of the hafting area of stemmed Genesee points has been established (Kenyon, 1980b: 36-37). By comparing sites, it was found that the hafting area decreases in size through time. Using Kenyon's comparative metric data, the Marks Bay point fits into the earlier portion of the sequence. It is later in time than the uncorrected carbon date of 1830 BC for the Davidson site, but older than Surma and Desjardins. A radio-carbon date is being processed for the Marks Bay site. Its age is generally established by the beach ridge position and by an uncorrected date of 1660 BC on the adjacent Money Musk site which lies only a few feet higher on the next shoreline (Conway, 1977 and 1980). This context supports the seriation developed for Genesee point hafting area sizes (see Table 2).

The Genesee point at Marks Bay had its origin in eastern Lake Erie. The Late Archaic inhabitants of the Carolinian biotic zone of southwestern Ontario developed a broad point technology similar to that found in New York State and eastern Michigan (Ritchie, 1980:109). The distribution of Genesee points

outside of southwestern Ontario is concentrated in central and western New York (Ritchie and Funk, 1973:47).

Many of the Ontario sites lie near major moraines between northeastern Lake Erie and the very southeastern lobe of Lake Huron. At the Surma site on Lake Erie, an Onondaga flint outcrop was extensively used by these Late Archaic people. Their workshop yielded numerous distinctive pentagonal preforms and finished Genesee points (Kenyon, 1978b).

Several Genesee points were found at the multi-component, Late Archaic McIntyre site in southeastern Ontario (Johnson, 1984:23). Most were made from Onondaga flint.

A series of Late Archaic sites in the Ausable River drainage near Lake Huron have Genesee points. However, the locally available Kettle Point flint was used for these points as well as Onondaga flint from Lake Erie (Kenyon, 1978a and 1980a). This lower part of Lake Huron may be the origin of the visitors that brought the Genesee point to the Sault Ste. Marie area. Certainly this artifact provides well documented evidence of Late Archaic trade between southwestern Ontario and eastern Lake Superior. Native copper and furs are likely candidates as items desired by southern peoples.

Other clues to traders at the Marks Bay site include Bayport flint items from southeastern Michigan and a Knife River flint flake tool which originated in the Dakotas. In this context, the Genesee point is only one of several artifacts that assist the identification of prehistoric trade in the Late Archaic. By Middle or Initial Woodland times, more distinctive artifacts indicating the continuance of aboriginal trade can be found on the St. Mary's River. These include obsidian from the Rocky Mountains to the western United States, occasional Adena points and large Burlington formation flint bifaces from southern Illinois.

TABLE 1: MARKS BAY SITE GENESEE POINT MEASUREMENTS

Length	8.0 cm	Shoulder Width	3.7 cm	Stem Width	2.1 cm
Base Width	1.8 cm	Blade Length	6.5 cm	Stem Length	1.7 cm
Thickness	0.5 cm				

TABLE 2: GENESEE POINT HAFTING AREA COMPARISONS

Site	Date*	Shoulder Width	Stem Width	Base Width	Stem Length
Davidson	1830 BC	4.1	2.5	2.2	1.7
Sadler	-	3.8	2.3	2.2	1.9
Marks Bay	1600 BC	3.7	2.1	1.8	1.7
Desjardins	-	3.4	2.1	1.9	1.6
Surma	-	3.4	2.1	1.9	1.3
McIntyre	1717 BC	3.0	1.5	1.6	1.6

* Radio-carbon dates are uncorrected. The McIntyre composite date does not necessarily refer to the Genesee point component of the site.

References

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 1978a The George Davidson site: an Archaic "broadpoint" component in south-western Ontario. KEWA, Newsletter of the London Chapter of the Ontario Archaeological Society, #8.

1978b Making Genesee points by the Niagara River. KEWA, Newsletter of the London Chapter of the Ontario Archaeological Society, #1.

1980a The George Davidson site: an Archaic "broadpoint" component in south-western Ontario. Archaeology of Eastern North America, 8: 11-28.

1980b The Satchell complex in Ontario: a perspective from the Ausable Valley. Ontario Archaeology, 34: 17-43.

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 1973 Aboriginal Settlement Patterns in the Northeast. New York State Museum and Science Service, Memoir 20.

Fig.1



LETTERS TO THE EDITOR

Dear Colleagues and Fellow Archaeologists,

I wish to alert you to the upcoming 52nd Annual E.S.A.F. Meeting to be held from October 31 to November 3, 1985 at the Buffalo Museum of Science, Buffalo, New York.

I expect that Canadian participation will be high and here is the ideal vehicle for exchange of information among researchers in our two countries. For the Saturday banquet I am pleased to say that Dr. James Wright of the Archaeological Survey of Canada, Ottawa, will address.

A field trip is planned for one day of the conference. Under the guidance of Dr. Stuart Scott and his wife, Pat, we will visit historic Fort Niagara to the north of Buffalo.

Dr. William (Bill) Engelbrecht is Chairman of the Program, and he encourages all members who wish to arrange symposia or give papers to do so now. He needs from you an abstract of your paper topic, its title, and your full address or institutional affiliation. Your telephone number would also be appreciated. For organizers of symposia, an abstract of the theme of the session is needed together with a provisional list of participants, paper titles and abstracts, and addresses of the participants. Bill's address and telephone number are:

Professor William Engelbrecht
Department of Anthropology
State University of New York College
Elmwood Avenue
Buffalo, New York 14222
Tel: (716) 878-6110

As the banquet will be held in the Buffalo Hilton in the city centre, it would be most convenient if members took rooms there. A shuttle bus service running at regular intervals will connect the Museum and hotel.

Later in the year, perhaps in mid-July, I will be sending brochures with the full particulars of the conference plus hotel reservation cards. By that date the tentative scheduling of sessions will be set; therefore, please contact Dr. Engelbrecht as soon as possible.

I would also like members to know that on Tuesday, 5 November my Museum is hosting a lecture by Richard Leakey. His books will be available for purchase and, it is hoped, for autographing. After the lecture there will be a champagne reception. Tickets to the lecture will themselves be original signed works of art by Pamela Schuyler-Cowens, a very talented local artist/photographer. Members wishing to participate should contact me. We have a very limited seating, making for a nice intimate atmosphere. Tickets are expensive (\$30), but consider that the lecture is a fund-raiser for the National Museums of Kenya. Our Museum hardly makes anything--except, of course, on Richard's books.

The ESAF and following NEAA conferences, both in Buffalo, will, I hope, be well attended by Canadians. We are having them in Buffalo as a special arrangement to make them available to our Canadian colleagues.

Michael Gramly

EXCAVATIONS AT
THE FRONTENAC VILLAGE SITE, KINGSTON

by Nick Adams

Introduction

Last fall the Cataraqui Archaeological Research Foundation conducted rescue excavations in an area of Kingston currently undergoing redevelopment as Frontenac Village Condominiums (Fig. 1). Excavations directed by Bruce Stewart concentrated on the area of Cataraqui Bay called Anglin Bay. Although now filled with up to 2½ metres of landfill, this part of town had once been the focus of the town's shipping activity. It had served as the port for the French trading and military establishment, Fort Frontenac (1673-1758), and fulfilled an important role as the dock for the British military fuel yard during the early nineteenth century.

The fort, which lies just across the street from the redevelopment, has been the scene of excavations by the Foundation since 1982. It was assumed that, because of the proximity of the fort, any shoreline activity associated with either the French or British occupation would be preserved in the bay. A wealth of documentary evidence provided additional information that this part of Kingston contained rich, preserved historical and archaeological resources. Negotiations with the developer, officials of the City of Kingston and the landowners resulted in an agreement whereby the Foundation would have five weeks unrestricted access followed by a period where access would be determined by the developers. A field season of twelve work weeks was achieved before further work became impractical.

Excavation

Once problems of access and funding had been resolved, we were able to settle into our task of excavation. Two research goals were set: to locate and investigate the original shoreline, and to expose and examine parts of the Barrack Master's house which excavations in 1983 had touched upon. A full time crew of twelve, and the consistent donation of time and expertise by a number of volunteers enabled us to meet the early research goals and extend our activities beyond our expectations.

Since the eighteenth century, deposition of landfill in Anglin Bay had raised ground levels to those of the surrounding natural land. Our first problem was to decide how best to locate the old shoreline and investigate the features and structures adjacent to it without destroying anything in the process.

While it would have been interesting to trace the whole sequence of fill all the way to the present, our time constraints precluded it, forcing us to concentrate on the late eighteenth and early nineteenth century deposits.

We hired a large tracked backhoe to excavate several one metre wide trenches from the high natural ground out into the bay, through the landfill. These provided us with vertical sections showing horizontal layers of successive fill overlying the bay's sediments. It also revealed where natural land gave way to that deposited by man. Based on this we mechanically excavated some areas within which to concentrate our efforts. The machined areas revealed a thick, artifact rich, organic layer lying directly over the natural sediments of the bay. The majority of artifacts from this layer suggested a deposition date of no later than the 1820's. This layer became the focus of our attention, as

its relationship to the various structures and buildings we discovered was crucial to our understanding of the site.

While native people clearly used the Catarauqui Bay area before the fort was built, we only gathered sparse evidence of their activities this fall. Parts of two smoking pipes, one pottery and the other stone, were recovered from the lowest levels of the bay fill. These finds came from a disturbed layer at the interface of the landfill and the bay's natural clays and there was no accurate way to separate them from the mass of later material overlying them.

Tin-glazed pottery sherds and some gunflints from the French period were also found impressed into this contaminated natural zone. A far more impressive artifact which probably dates to the French period was the wharf/jetty we found extending out into the bay from the shoreline. This construction consisted of a group of vertical cedar posts whose carefully sharpened ends had been thrust down into the sediments. Presumably the posts had once supported a platform or walkway so that boats could be loaded and unloaded. Unfortunately their tops had long since rotted and the structure they once supported long since disappeared.

Construction work to the east of the area examined this fall had resulted in the discovery and partial excavation of parts of vessels believed to be French ships destroyed in the harbour by the British in 1758. Unfortunately this had happened before the Foundation appeared on the scene, in the 1950's to be precise. Because of the way the modern property boundaries lie, the area we were investigating lay some distance to the west of these finds and we were not rewarded with anything similar.

The bay close to the fort appears to have been of marginal value as a sanctuary for shipping despite Count Frontenac's early assertions of its suitability. By the time the British had acquired control of the area the shallow bay had become regarded as useless for anything but the smallest vessels and its reedy waters considered the source of 'foul miasma's. By the 1820's it had become so choked and unpleasant that a deliberate policy of landfill was initiated.

The thick, rich, organic deposit extended over the whole area we investigated. It is difficult to accurately describe this layer, but it resembled a thick stew of animal bones and military refuse suspended in a soggy mass of wood chips. While not a particularly appetizing stew, it did have some redeeming features. Its high acidity and wetness provided conditions under which little biological or chemical decay could occur. Wood and leather objects dating to the earliest British occupation of the fort were recovered in pristine condition, and military cap badges and buttons identifying the 70th or East Surrey Regiment were recovered un tarnished. Even iron objects were preserved from rust in this oxygen-deprived zone. Some of the more distinctive artifacts were bayonet scabbards, leather cap peaks, shoes, mess tins, flints and gun-parts: a mixed bag of military flotsam.

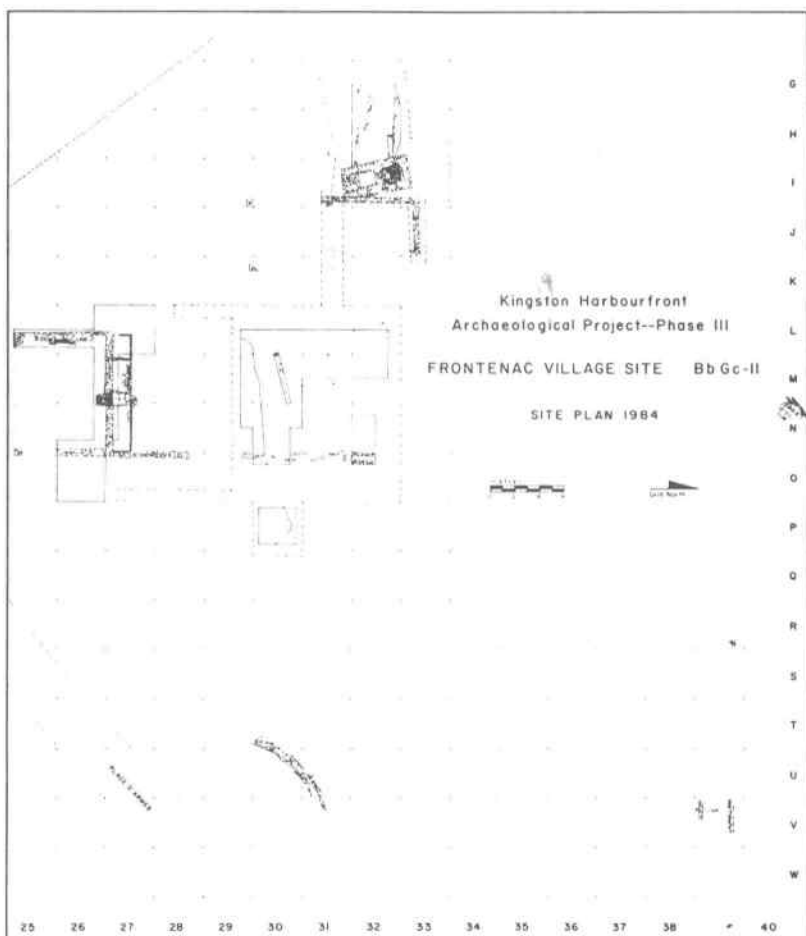
Overlying the organic layer was a series of horizontal beams which lead out into the bay. Between them, limestone rubble had been laid forming a solid base over the soggy mess beneath. Our early interpretation of this is that it was the landward ramp of a large dock from the early British period.

The ramp must have had a short life because soon after it was completed a small limestone and brick building was built partly on top of it. Opinions differ as to this building's function but since one end of it was dominated by a large brick fireplace, heating or burning of some sort was performed there.

Like the ramp, this building soon went out of use. In 1820 the area of

Figure 1

- Excavation units
- - - - - Mechanically removed for archaeological excavation. All other structural remains were uncovered by developer.
- · - · - · - Millard & Lumb property line



Cataraqui Bay was formalized into water lots. In one of these (lot 23) a large stone building was built to house the Barrack Master, and a kitchen-stable was added along the property's western boundary (Fig. 2). The property line dividing lots 23 and 24 cut through the corner of the limestone and brick building which had not been built with any reference to the later alignments. When the kitchen/stable complex was erected it followed the general alignment of the new lot boundaries, cutting through the corner of the earlier building in the process.

We opened up two units adjacent to the Barrack Master's house. These provided us with details of the building's construction and development. At the east end of the building we discovered that a large quantity of the soft limestone bedrock had been removed, enabling the builders to construct a full basement.

We had not expected to have sufficient time to examine the north wall of the house, but our activities in that area were precipitated by the pressures of the Frontenac Village development. Before this part of the site was entirely removed we were able to investigate and record a large porch/addition attached to the north wall. This structure does not appear on any of the early maps which show the Barrack Master's house.

The wooden sill beam, with mortices where vertical posts evidently once stood, enclosed an area of rough limestone paving. Investigations around the north doorway of the house revealed fragments of a door and the remains of two levels of flooring leading out onto a flagstone pathway. One floor had clearly rotted and had been replaced by another of wide pine boards. Artifacts found between the floors will give an accurate date for this improvement.

The Barrack Master's house stood for almost a century before changing land use in the bay area resulted in its demolition. Before it was knocked down, the house had been a fine two-storey limestone building with brick chimneys at either end. The kitchen was within the basement and was served by a large brick fireplace. Parts of this were uncovered during the excavation of the west wall of the house, but was more completely exposed when the developers bulldozed away most of the north side of the house. The excavations showed that the house had been demolished down to basement level to allow a railway siding to pass across the area. The timbers of the track were found lying directly on top of the basement wall.

It was clear that the house had not just been built and then ignored. Improvements and additions throughout its life provide a vivid insight into the activities of the people it served. One of the more significant changes we discovered was the addition of a stone drain/sewer to the east end of the house. Changes in public attitude to health and disease, and an increasing intolerance for domestic refuse in the mid-1800's led to the gradual development of public and private sanitation facilities. The drain, which leads from the house out into the bay can be seen in the light of this change in public perception and concern.

Landfilling in Anglin Bay appears to have been fairly haphazard until the 1840's. In a report by J.F. Burgoyne, Military Commander of British Forces of Quebec, written in 1848, the swamp immediately adjacent to the Tete De Pont Barracks (Fort Frontenac) was described as being so obnoxious,

'...as to occasion the periodical evacuation of one of the barrack buildings at that post.'

The landfilling that had occurred up to that point had compounded, rather than alleviated, the problem. Shortly after Burgoyne complained about the problem, a log cribbing wall was built across the bay impounding the landfill and

creating a formal polder. During machining, the contractors working on the Frontenac Village development uncovered this cribbing and part of a wharf at its eastern end. We were fortunate enough to be able to record its position and some details of its construction before it was covered up again.

The latest archaeological feature we investigated was, like the cribbing, uncovered by the bulldozers. A railway turntable, partially excavated in 1983, was revealed during machining. This 1870's industrial feature may be incorporated into the Frontenac Village development as a historical feature/garden.

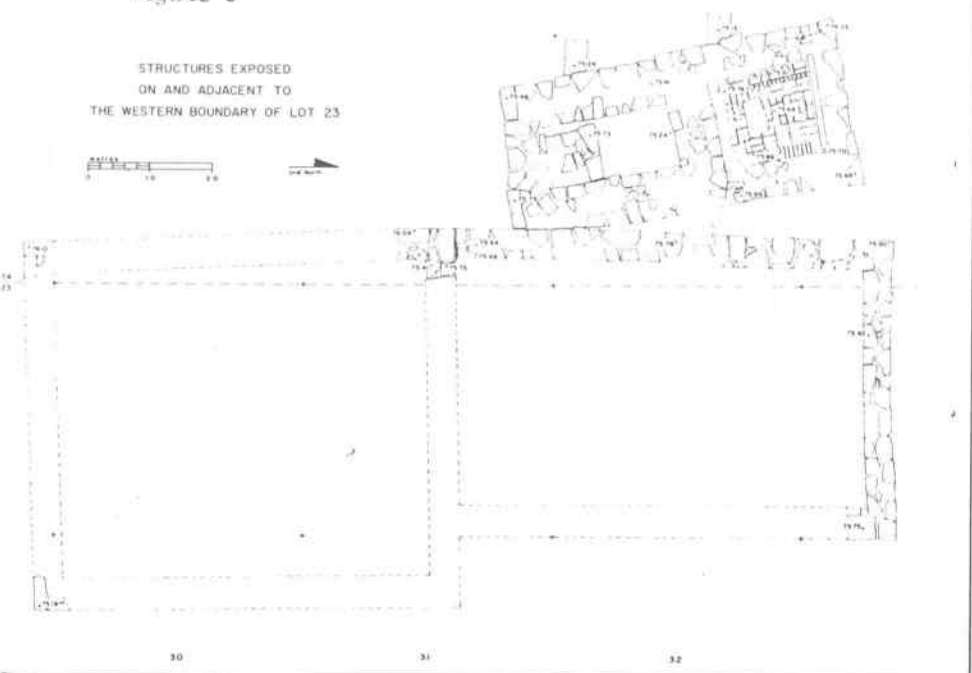
Summary

The excavations undertaken by the Cataraqi Archaeological Research Foundation over the last few years have provided a massive amount of information about the development of Kingston from military and trading outpost to modern commercial city. Last fall's fieldwork along the shoreline added to our knowledge of structural development adjacent to the fort, and elucidated the function of the bay in the city's development.

The declining value of the bay as a harbour, and its perceived danger as a source of illness is reflected in the sequence of landfilling which took place between 1815 and the turn of the nineteenth century. The deposition of massive amounts of organic military garbage into the bay was the first stage in a land-fill process and has provided us with a substantial collection of artifacts pertaining to a specific group.

Figure 2

STRUCTURES EXPOSED
ON AND ADJACENT TO
THE WESTERN BOUNDARY OF LOT 23



Objects of personal and regimental equipment, and large quantities of food-related items, provide a detailed insight into the daily life of the 70th regiment.

As the smell of their own garbage built up to crisis levels, more landfill was added to the bay. A series of buildings were constructed taking advantage of the new land. These early buildings related directly to the military, who retained the administrative rights to the area. However, pressures to release parts of the military reserve came from a number of sources. The area we excavated became assumed by the Kingston and Pembroke Railway Company and later by the Canadian Pacific Railway as it expanded its activities into the heart of Kingston in the late nineteenth century.

As analysis of the artifacts proceeds and the information from the excavations is coordinated with that from archival searches, a more detailed picture of this part of Kingston emerges. Although this area had been the scene of considerable industrial activity in the recent past, it was enlightening to discover that so much archaeological information could be discovered beneath more modern deposits.

Acknowledgements

Support and services towards this project were provided by the Ontario Heritage Foundation, Employment and Immigration Canada, the City of Kingston and Dupont Canada Inc. Their support and contributions are gratefully acknowledged.

* * * * *

VISIT FORT FRONTENAC THIS SUMMER

An open invitation is extended to members of the O.A.S. by the Cataraqi Archaeological Research Foundation to visit the site of Fort Frontenac in Kingston, the earliest European military establishment in Ontario.

The field season, which is the Foundation's third season of excavation on the site, will run from June 10 through August 31, with excavation in progress Monday through Friday each week from 8 a.m. to 4:30 p.m. However, guided tours will be available seven days a week from 9 a.m. to 8 p.m. In addition to the structural remains, visitors will be able to view artifacts recovered from the excavations and documents relevant to the history of the site.

This summer is expected to be a very busy one at the Fort and you are invited to share in the activity. Please feel free to contact the Foundation office for further information. The address is:

The Cataraqi Archaeological
Research Foundation
c/o L.C.V.I.
153 Van Order Drive
Kingston, Ontario K7M 1B9
or telephone (613) 542-3483

* * * * *

WHY DID THE WENRO TURN TURTLE?

by John Steckley

In an earlier work (Steckley 1982:30-1), the Wenro were presented as being adopted into the Turtle clan of the Huron. This took place in 1638, when about 600 of them migrated from their precariously-positioned traditional home east of the Niagara River and dangerously close to the Seneca. The evidence for their joining the Turtle came from the following entry in a Huron clan list of the mid-1650's:

"Andia8ich /Turtle/ tionnenria honnontre/a/ hotienrotori"

(op. cit. p.30)

A tentative translation for the phrase "tionnenria honnontre/a/ hotienrotori" was set out as, "When they were small in number they adopted the Wenro as their /maternal/grandchildren" (op. cit., p.31, addition mine). The term hotienrotori was taken as meaning 'they are Wenro', without being broken down into constituent meaningful elements (outside of the pronominal prefix -hoti- meaning 'they'). It is here suggested that if this term is analyzed according to its constituent parts, a reason may be put forward for why, beyond the small size of the Turtle clan, the Wenro were adopted into the particular clan.

Ways in which the name Wenro has been represented

Ouaroronon	Sagard 3:804
Ahouenrochrhonon	JR8:115-6
*Weanohtonon	JR16:252-3
Wenronronon	JR17:24-5
Wenroronon	JR17:212-3
Oneronon	JR18:234-5
Awenrehronon	JR21:230-1
Oenronronnon	JR39:138-9

(* = is changed from the -8- in the French version)

The heretofore most accepted translation of Wenro is the one first put forward by J.N.B. Hewitt in 1910. Taking a Huron noun meaning 'moss' -wenr- (see Potier 1920:454), a verb -o- referring to being in water or on or in something wet (op. cit., pp.401-2) and a suffix -ronnon- meaning 'people' (op. cit., p.66 #7) Hewitt translated 'Wenronnonon' as "The people of the place of the floating soum" (Hewitt 1910:932, as cited in White 1978:411).

While the elements chosen are probably correct, a different interpretation of their combination will be set forth here. Further, it is suggested that the term hotienrotori is unanalyzable in itself because it is made up of two separate words, not one: hotienro and otori. The first part should be translated as 'they have moss on something wet', and the second should be 'it is covered' (op. cit., p.431*). The combined translation would be 'they are covered with moss'.

A combination of -wenr- 'moss' and -ori- 'to be covered' was used in Wyandot, which can be considered a dialect of Huron, as the term for the 'moss-backed turtle' (Barbeau 1915:72 fn 2 and 86 fn 1). Significantly, it was the usual term for the Big Turtle clan, the leading clan of the Turtle phratry (ibid.).

The hypothesis, then, is that like the Bear and Deer 'tribes' of the Huron, the Deer and Wolf 'divisions' of the Petun, and the Erie or Cat tribe, the Wenro were named after an animal: the turtle. When they migrated north to Huronia, they joined with their 'Turtle brothers' among the Huron and may well have formed the nucleus of the Big Turtle clan of the Turtle phratry of the Wyandot.

Were Other Neutral 'Tribes' Named After Animals?

This question should be posed as at least two and possibly three other Neutral political units are named in the Huron clan list cited above. First, we find in the Wolf clan entry the word "Ahonrek". This is clearly cognate with the underlined term appearing in the tribal list given below, recorded in the Relation of 1656 as part of the vision speech of an Iroquois spirit:

"I made you conquer the Hurons, the Tobacco Nation, the Ahondironons, Atiraguenrek, Atiaonrek, Tekoulguehronnons /Atrakwaeronnon/ and Gentuetehronnons /Erie/;...

(JR42:197 - additions mine)

It is tempting to say (as in Steckley 1982:31) that this term is derived from the verb -riy- meaning 'to chew or suck' (Potier 1920:346 #43*) as this is the verb from which the Huron term for wolf, bone-chewer, is derived (op. cit., p.450). More evidence is needed, however, before this can be established conclusively. I suspect at this point that Ahonrek or Atiaonrek was the 'tribal' name for the people who lived in the Niagara region, as the terms Niagara and Ahonrek never appear in the same list.

Additionally, under the entry for the Hawk clan we find the words 'hatiraenre' and "Araenre". While it is possible that these terms are derived from a noun and verb combination -,ara,enie- (Potier 1920:245) meaning 'to roll or turn over' (as was suggested in Steckley 1982:31), and that this term could refer to the spirally dive of a hawk, lacking further evidence, this is highly speculative at best. More likely, but still speculative, is the possibility that the hatira,enre were the Hawk 'tribe' of the Neutral.

Finally, in the Fox clan entry we find the term "skanda,ona" along with the term for fox. No translation that is satisfactory has emerged to date. Interestingly, if this name could be connected in some way with the Ahondironnon, we would have all known Neutral groups incorporated into the list¹. Again, further research is necessary.

Conclusion

To conclude, there is reason to believe that the Wenro were adopted into the Turtle clan of the Huron because they were already known as the 'Turtles'. It is possible that the other 'tribes' of the Neutral also had animal names, ones referred to in the Huron clan list. Whether or not they too were adopted into the Huron cannot really be said.

1 - It is the opinion of the author (to be argued elsewhere) that the "Antouaronons" and the "Kakouagoga" appearing in the map attributed to Claude Bernou (c1680) are not references to Neutral tribes.

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BRUCE TRIGGER HONOURED

The Department of Anthropology of McGill University in Montreal announces with great pleasure and pride that Professor Bruce G. Trigger, F.R.S.C., has been awarded the 1985 Innis-Gérin Medal of The Royal Society of Canada. The medal is awarded biennially in recognition of a distinguished and sustained contribution to the literature of the social sciences (including human geography and social psychology). Professor Trigger is the eleventh recipient of the award, and the first social scientist from McGill to be so honoured.

Bruce Trigger was born in Preston, Ontario, and was educated at the public schools there and at the Stratford Collegiate Institute. He earned his B.A. at Toronto, and his Ph.D. at Yale University. He taught at Northwestern University before coming to McGill in 1964. He is a world-renowned archaeological theorist and ethno-historian, and has directed field research in the Sudan and in Ontario. The author of fourteen books and over 130 articles, Bruce Trigger has been the recipient of awards and distinguished lectureships in Canada, England, Australia, and the United States. He has been a Fellow of the Royal Society of Canada since 1976. He is now 47 years old.

* * * * *

MEN FINED FOR LOOTING INDIAN SITE

A justice of the peace imposed fines of \$7,000 on two men who looted an archaeological site, considered one of the most valuable in Ontario, and desecrated 350-year-old Indian graves.

In the first case brought to trial under the archaeological provisions of the Ontario Heritage Act, Justice of the Peace Robert Robbins also imposed a \$700 fine and a community service order on an accomplice.

Mr. Robbins ordered that the three men forfeit 9,541 artifacts, which they took from a site near Freelon between April 14 and October 14, 1984. The site was off-limits even to professional archaeologists as it was the last-known undisturbed Neutral Indian village in Ontario.

The remains of 65 bodies dug up from a nearby cemetery will be given to the Six Nations Band Council for reburial in Indian land, William Fox, regional archaeologist for the Ontario Ministry of Citizenship and Culture, said after the hearing.

Mr. Robbins said he had seriously considered a jail term for the offence, which he compared with the extinction of a species, because of the archaeological and spiritual value of the seventeenth-century site. He said the defendants, George Parkin, 37, Gordon Jackson, 59, and their accomplice, Gary Richer, 43, showed complete indifference to the law. They pursued no archaeological purpose and engaged in looting which went well beyond the purpose of private collection.

Mr. Fox said one of the men had advertised the sale of artifacts in a newspaper.

The excavation of Indian burial sites for scientific purposes has been subject to a moratorium since 1976, when Indian groups protested against the archaeological dig, Mr. Fox testified. He said the Ministry is in the process of designating the Neutral village as a heritage site and does not want any archaeological activity there for several years pending the development of improved methods for evaluating excavated soil and artifacts.

Mr. Robbins said Mr. Jackson, a former member of the Ontario Archaeological Society, was "in a position to know that what he was doing was totally wrong". Mr. Fox had testified that Mr. Parkin's family had long been reputed to be involved in the sale of archaeological artifacts and Mr. Robbins described him as "a second-generation looter".

Mr. Richer suffers from a disability and Mr. Robbins ordered that he do 800 hours of community work, noting that the offence demonstrated "an ability to perform in a functional, albeit illegal, manner".

Archaeologists in Ontario have long been concerned about the activity of looters, but prosecution of cases requires the authorization of the Minister of Citizenship and Culture. This had not been forthcoming until the present minister, Susan Fish, assumed office, said Mr. Fox, praising the Minister for her concern and determination. "It's a very important day for archaeological resources in Ontario," said Mr. Fox.

Work is now expected to begin on a cleanup of the Freelon village site and an assessment of the damage done. The burial ground has been covered. The exact location of the sites is not being disclosed for fear of further desecration. Mr. Fox refused to place a value on the looted artifacts, which included arrowheads, pipes, axes and cooking vessels, saying that it might encourage other people to engage in similar activity.

From the Globe & Mail, May 2, 1985

* * * * *

THE TORONTO TOBACCO-PIPE INDUSTRY:
AN EXAMINATION

by Robin H. Smith

Introduction

The late I.C. Walker in an update of his article on nineteenth century clay tobacco-pipes in Canada discussed a pipe, held in a private collection, that bore a Toronto name (Walker 1983:27). Walker also indicated that no research had ever been conducted into the possibility that a clay pipe industry existed in Toronto. Research now shows that Toronto did not have a pipe making industry until the early twentieth century and that makers were undoubtedly producing briar and meerschaum pipes, rather than ball clay pipes.

Method

To ascertain whether in fact clay tobacco-pipes were produced in Toronto during the second half of the nineteenth and the early twentieth centuries, a number of historical sources were examined. First and foremost the Toronto city directories, held at the Toronto City Hall, beginning 1845 and ending 1930, were thoroughly searched. This process involved an examination of both business and personal directories. In the case of the personal directories, each year was searched by name. Upon completion of the year by year search, business records (Dun and Bradstreet), Provincial Business Directories, Partnership records and other manuscripts were searched in the Ontario Archives. Once a list of pipe maker's names was compiled and business information recorded, newspapers for the period in question were searched to isolate advertisements and articles relating to the production of clay pipes.

Toronto Pipe Makers

A surprising number of pipe makers are listed in the Toronto city directories. The first recorded maker appears in the year 1904. The next is recorded in 1907 and from then the number increases until 1930. The year 1930 was chosen as a cutoff date because it marked the first year of the depression and a time when businesses were going bankrupt in large numbers. It is, however, highly doubtful that any of these makers produced clay pipes. The last recorded Montreal maker is listed for the year 1907, a point which marks a probable terminus post quem for Canadian clay pipe manufacture as a whole. Thus, for the years from 1845 to 1903, there are no recorded pipe makers in the city of Toronto.

The first pipe maker, recorded in 1904, is John A. Hoffman, listed at 403 Queen Street West. His advertisement in the 1904 directory indicates that he was a manufacturer of "Block Amber, Ambroid, Meerschaum, Horn, Vulcanite, and Ivory Pipes. Every description of smoker's requisities new or repaired. Done on the shortest notice" (Might Directory 1904:553). Hoffman is only listed for the one year and cannot be found in the 1905 directory.

In 1907 and 1908, Louis Simon is the only pipe maker. He is listed at 37 Yonge Street and lives at 247 Sherbourne. No advertisements could be found for this maker. The 1909 directory lists Simon as well as John Hoffman, and a Roy Brigham. Simon has moved to 80 Bay Street where he remained until 1922. John Hoffman is listed at 13.5 Leader Lane and boarded at 206 Queen Street East. Hoffman is not listed for the year 1910 and no connection could be made with the Hoffman listed for the year 1904. Roy Brigham is listed at 62.5 King Street

West and lived at 83 West Lodge Avenue.

Roy Brigham is the founder of Brigham Pipes Ltd., a firm which still produces pipes today. Brigham Pipes apparently was formed in 1906 according to Mr. Mike Brigham, the grandson of Roy (Pers. Comm.). The elder Brigham was set up in business in 1906 by one of the largest tobacconists in Toronto, although Mr. Mike Brigham could not remember the name (Ibid.). A search of the 1906 directory reveals that Roy was apprenticed to Andrew Wilson, tobacconists. It can therefore be advanced that A. Wilson helped finance the Brigham Pipe Company in 1906.

The 1910 directory lists only Louis Simon and Roy Brigham as pipe makers. Brigham is listed as R. Brigham and Company Pipes at 74 Adelaide Street East, where the firm remained until 1930. Simon is still located at 80 Bay Street.

In 1911 Simon and Brigham are listed along with another pipe maker, Richard Seintner who is listed at 287 Yonge Street and boarded at 258 Gerrard Street East. No advertisement could be found for this maker. From 1912 until 1915 Simon and Brigham are the only makers listed. In 1916 two new companies appear who are certainly producing briar pipes. A N D Pipe Company is listed at 32 Adelaide Street East and the B B B Pipe Company is listed at 64 Wellington Street West.

In 1919 a new pipe maker is added to the list: a William Croft and Sons Ltd. is listed at 436-438 Wellington Street. From 1920 until 1922 these five makers are the only pipe firms listed. In 1923 a Hesson Pipe Company is listed at 74 Adelaide Street, sharing premises with Roy Brigham and Company. From 1923 to 1930 it is obvious that the firms are indeed producing briar pipes which by this time had largely replaced clay pipes. Only three new firms are listed between the period 1923 and 1930, along with the six firms already discussed. In 1926, a C. Dollack is listed at 25 Leader Lane and W.H. Cutler and Company at 28 Wellington as well as a Hargraft Brothers Ltd. at 29 Colborne who were known for their "Sasieni Pipes". Thus, by 1930 Toronto had nine pipe producing companies. A cursory look at the directories after 1930 revealed that the pipe makers by and large weathered the depression and continued producing into the 1940's.

1904-1930 Directory Listings

1904

John A. Hoffman	Pipe Maker	403 Queen E.
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1907-1908

Louis Simon	Pipe Maker	37 Yonge
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1909

Louis Simon	Pipe Maker	80 Bay
Roy Brigham	Pipe Maker	62.5 King W.
John Hoffman	Pipe Maker	13.5 Leader Lane

1910

Louis Simon	Pipe Maker	80 Bay
Roy Brigham and Co.	Pipe Manufactory	74 Adelaide E.

1911		
Louis Simon	Pipe Maker	80 Bay
Roy Brigham and Co.	Pipe Manufactory	74 Adelaide E.
Richard Seintner	Pipe Maker	287 Yonge
1912-1915		
Louis Simon	Pipe Maker	80 Bay
Roy Brigham and Co.	Pipe Manufactory	74 Adelaide E.
1916-1918		
Louis Simon	Pipe Maker	80 Bay
Roy Brigham and Co.	Pipe Manufactory	74 Adelaide E.
A N D Pipe Co.	Pipe Manufactory	32 Adelaide E.
B B B Pipe Co.	Pipe Manufactory	64 Wellington W.
1919-1922		
Louis Simon	Pipe Maker	80 Bay
Roy Brigham	Pipe Manufactory	74 Adelaide E.
A N D Pipe Co.	Pipe Manufactory	32 Adelaide E.
B B B Pipe Co.	Pipe Manufactory	64 Wellington W.
William Croft and Sons	Pipe Manufactory	436-438 Wellington
1923-1925		
Louis Simon	Pipe Maker	230 Bay
Roy Brigham and Co.	Pipe Manufactory	74 Adelaide E.
A N D Pipe Co.	Pipe Manufactory	32 Adelaide E.
B B B Pipe Co.	Pipe Manufactory	64 Wellington W.
William Croft and Sons	Pipe Manufactory	436-438 Wellington
Hesson Pipe Co.	Pipe Manufactory	74 Adelaide E.
1926-1930		
Louis Simon	Pipe Maker	71 Wellington W.
Roy Brigham and Co.	Pipe Manufactory	74 Adelaide E.
A N D Pipe Co.	Pipe Manufactory	32 Adelaide E.
B B B Pipe Co.	Pipe Manufactory	64 Wellington W.
William Croft and Sons	Pipe Manufactory	436-438 Wellington
Hesson Pipe Co.	Pipe Manufactory	74 Adelaide E.
C. Dollack	Pipe Maker	25 Leader Lane
W.H. Cutler and Co.	Pipe Manufactory	28 Wellington
Hargraft Brothers	Pipe Makers	29 Colborne

Toronto Marked Clay Pipes

A number of different Toronto marked clay tobacco-pipes has been described in the archaeological literature. Two of these pipes were the subject of two articles, one by this author (Smith 1985:9-12), and one by Andersen (1985:5-7). The names, Andrew Wilson and J.W. Scales Ltd., are in fact not of Toronto pipe makers but rather Toronto tobacconists who had pipes custom-made for them as promotional items. The origin of these pipes is unknown but numerous pipe

firms in Scotland advertised that pipes could be custom produced (Sudbury 1980:45).

The final marked clay pipe with a Toronto name was reported upon by Walker (Walker 1983:27). The stem was marked with Davidson and Hay on one side and Toronto on the other. Davidson and Hay were a large grocery concern that became wholesalers in the early 1880's. The firm operated under the name of Davidson and Hay from 1885 until 1915 when they became part of General Foods. Thus, the pipe bearing the name Davidson and Hay can in fact be dated to the period between 1885 and 1915. A further refinement can be advanced if one assumes that the pipe was probably produced by a Montreal maker. The last Montreal maker is listed in 1907. A tighter date of 1885 to 1907 can therefore be advanced for this particular pipe.

To this author's knowledge no other Toronto marked clay pipes have been found. From the research undertaken it is clear that clay smoking pipes were not produced in Toronto and that pipes bearing Toronto names were in fact custom-made in other pipe making centres.

Discussion and Conclusions

The total lack of pipe makers in Toronto for the period from 1847 to 1903 is in itself of historical importance. Very little economic history of Canadian cities or particular sectors of the economy has been researched. Pipe clay was not taxed under the Canadian Customs Tariff Act and Montreal pipes were roughly half the cost per gross of Scottish or English imports. The fact that Montreal was the economic centre of the country during the second half of the nineteenth century may explain the lack of Toronto makers. The power of the Montreal industry is not really understood nor is the market share the Montreal firms controlled in comparison to the off shore producers. Pipes are also known to have been produced in Quebec City and St. John, New Brunswick (Walker 1983).

The Toronto pipe industry therefore appears to have only produced briar pipes. This industry appears to be relatively unstable in the early years with makers only producing for limited periods of time. The weathering of the depression by many of the makers indicates that pipe smoking was a common and accepted pastime.

In conclusion therefore it can be stated that clay tobacco-pipes were not produced in Toronto. Pipes that do bear Toronto names are more than likely promotional items produced either in Montreal or Glasgow for Toronto retailers. The marks can provide tight chronological information as business names appear to have changed with regularity in the late nineteenth and early twentieth centuries.

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a c p - brief biography #3

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1983

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Acknowledgements

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ARCHAEOLOGICAL CONSERVATION PROGRAM - Brief Biography #3

Archaeological Conservation Program Member - Timothy Angus



Tim has resided in the Cambridge vicinity all his 28 years. Of Waterloo County pioneer stock, he developed an early interest in local history which has since expanded to the study of both prehistoric and historic archaeological sites. Tim has a particular interest in prehistoric technology and tool use, and has used his 13 years of hunting, trapping and fishing experience to better understand and predict Waterloo region prehistoric Native site locations. While he is a relative newcomer to the Archaeological Conservation Program (2 years), Tim has already reported four major 16th century Neutral villages in the strategic Galt-Lynden area, situated between the Kitchener-Waterloo prehistoric and Brantford-Ancaster historic Neutral village clusters. At one such village,

he has been able to convince the landowner to cease cultivating an associated cemetery area in an effort to protect it from further plough disturbance and possible discovery by looters. We look forward to many more years of archaeological resource conservation activity by Tim!

See ARCH NOTES 85-1:21-27 for details of the Archaeological Conservation Program in Southwestern Ontario

FROM THE O.A.S. OFFICE.....

1985 Trip to Greece and Crete Fully Booked

Fifty Society members and guests have applied to participate in the forthcoming two-week tour of Greece and Crete. Because of the tremendous popularity of Greece this year with much competition for all available facilities, a ceiling of 50 participants was imposed and has now been reached. While no more applications can be accepted at this time, a waiting list will be opened for standbys. The trip departs from Toronto at 8:00 p.m. Saturday, September 14.

1985 Field Season: Volunteers Accepted at the Following Digs

AUGER SITE, during University of Toronto Field School and particularly during the Toronto Chapter Weekend June 15 and 16. Contact Dena Doroszenko at home, 537-6732

WALLACE SITE, during University of Toronto Field School, July and August. Contact Dr. Gary Crawford at Erindale College 828-5292 or home 820-1023.

DOWNTOWN TORONTO, on University of Toronto Campus, all summer. Contact Dena Doroszenko at home 537-6732.

DOWNTOWN TORONTO, The Sackville School Site, July and August, 7 days a week. Contact Peter Hamalainen: days 965-3741, home 429-2800.

See also ARCH NOTES 85-2, page 30, concerning dig opportunities at Kenora, Kingston, South Lake, Lake Erie Shore and to be announced by several Chapters.

Ninety-Nine Members Due to Renew July 1st

Four Institutional Members, eleven Family Members and eighty-four Individual memberships in the Society expire June 30th. Renewal reminder notices are enclosed with ARCH NOTES to the Family and Individual Members. Members are offered a provision to adjust their membership to coincide with the calendar year, to which the bulk of the membership adheres. This feature is of particular interest to those members who also belong to Chapters, all of which operate on a calendar year basis.

Peterborough Petroglyphs Enclosed

O.A.S. members Kenneth E. Kidd and Paul Sweetman were among the invited guests at the dedication of the large and unique structure erected over the main Peterborough Petroglyphs. The concrete and glass building, said to be unique in the world, was officially opened Tuesday May 7th by the Minister of Natural Resources.

Representatives of the National Museums of Canada, the Conservation Institute, the architect, builder, Trent University and assorted politicians were also in attendance. The dedication was given in the traditional way by two Anishnabwe people, Mrs. Gladys Taylor and Chief Aubrey Coppaway of the Curve Lake Ojibway Indian Reserve.

Paul Sweetman noted with surprise the extent of damage to the glyphs, presumably at least partly from acid rain, since he surveyed and recorded them for the University of Toronto in 1954.

Nominating Committee for the O.A.S. Executive

If you would like to be on the Nominating Committee for the 1986 Executive of the Society, please indicate your interest to any present member or to the Society's Administrator.

from the o a s office ...

O.A.S. MEMBERS AT VOLUNTEER AWARD CEREMONY

Five O.A.S. Members were awarded Volunteer Award Pins at a ceremony on April 14 at the Sheraton Centre, Toronto, hosted by the Ministry of Citizen-ship and Culture.

Inaugurating the first series of annual ceremonies throughout the province was the former Minister, the Hon. Susan Fish ...

"There is no one, as I have said many times, who is more deserving of recognition than our volunteers. I am truly delighted that my Ministry has been able to initiate this program to honour volunteers working in the cultural and multicultural areas."

Members awarded pins were: Bill Fox for over eight years of editing the newsletter of the London Chapter, Clyde Kennedy for eight years editing of the Ottawa Chapter newsletter, Peter Reid for eight years editing of the Windsor Chapter newsletter, Lorna Proctor for over ten years past service to the O.A.S. and Mike Kirby for over ten years editing of the provincial newsletter of the O.A.S.

Mike was chosen to represent the Heritage group as a whole and received the V.I.P. treatment before the ceremony and was presented with his pin by the Minister on stage.

1985 Sight/Site-Seeing Bus Trip

The 1985 bus trip is arranged for Saturday August 3rd and includes visits to three archaeological sites. Two of these are under excavation and the actual process of archaeological excavation will be seen. The third has been excavated and partly restored.

The assistance and cooperation of the Boyd Archaeological Field School, the University of Toronto Archaeological Field School and the Halton Region Conservation Authority are happily acknowledged. The two Field Directors in charge of excavations, O.A.S. members Bob Bugar and Dr. Gary Crawford, have both volunteered to guide our visiting party on their respective sites.

The bus will depart from York Mills subway station at 9:30 a.m. Saturday August 3rd and the total cost including admissions and coffee at Boyd is \$20. For more information, see the flyer accompanying this issue of ARCH NOTES or contact the Society office at 223-2752.

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Arch Notes Deadline

For the next issue of Arch Notes (July/August), the deadline for receipt of articles, information etc. is July 17. The issue will be mailed August 5.

Our First Enquiry from East Germany ...

"... For more than 10 years my hobby is the archaeology and the history America's. Specially I'm interested in the history and the culture of the native people America's. That's why I've got a request to make. Send me please some information-material of the archaeology and the history Ontario's. In advance thank you very much for your help!

Sincerely,
Manfred Unnasch
Peter-Blome-Str. 3
DDR-2300 Stralsund ..."

PATTERNS OF POWER: GREAT LAKES INDIAN ARTISTS EXHIBITION

From April 25 to July 1, 1985, the National Museum of Man will exhibit an unusual collection of early 19th century Indian material from the Great Lakes Region, organized by the McMichael Canadian Collection (Kleinburg, Ontario).

Entitled Patterns of Power, this exhibition highlights native aesthetic imagery and symbolic motifs in the everyday items collected by Major Jasper Grant of the 41st Regiment of Ireland.

The 59 artifacts from Grant's collection were deposited with the National Museum of Ireland by his descendants in 1902. Commandant of Fort Amherstburg, Upper Canada, from 1800 to 1809, Grant, like many of his military contemporaries, collected a variety of New World "curiosities". He also left, thanks to his conscientious correspondence with his family, a fascinating record of the life-styles of both military personnel and natives peoples.

In addition to the Grant pieces, the exhibition also contains 35 objects on loan from the National Library of Ireland, the McCord Museum, the Royal Ontario Museum, the National Museum of Man and a private Ontario collection. While the majority of artifacts are pieces of costume, there are also weapons, domestic items and some period illustrations.

The designs on certain works reflect the mythological framework of the Great Lakes Indians. To communicate with the spirit world, people had to create objects that correctly represented the universal order. The great manitous of the upper- and underworlds had powers that certain people could acquire by representing those spirits in the proper way. For example, thunderbirds were usually shown with jagged zigzag lines recalling thunder and lightning, while circular patterns were used for underwater panthers.

Understanding the stylized decorative motifs of the Great Lakes Indians leads to a better knowledge of their cosmology. Thus, what might seem to be merely visually attractive decoration is actually a complex pattern of design governed by the deep religious belief of these Indian artists.

The Victoria Memorial Museum Building, corner of Metcalfe and McLeod Streets, is open Tuesday to Sunday from 10 a.m. to 5 p.m. and Wednesdays until 9 p.m.

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ANCIENT ELK BONES FOUND IN ALBERTA

The skeleton of an elk, believed to be 10,000 years old, has been recovered from a gravel pit in the Peace River country of northwestern Alberta. James Burns, a curator from the Provincial Museum in Edmonton, said yesterday the find, from just after the end of the last ice age, is significant in being nearly complete. "We missed about five toe bones. They're probably spread out on some road in northern Alberta." Mr. Burns said the bones "are a little on the fragile side" but "it's a rare find--it's got a beautiful skull on it and the lower jaw and teeth are intact".

The skeleton was discovered last December.

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Toronto Chapter Monthly Meeting - Wednesday, February 20, 1985

Reported by Annie Gould

SALVAGE ARCHAEOLOGY IN JAPAN
AS CONTRASTED TO CANADA

by Dr. William Hurley

Dr. Hurley has been teaching at the University of Toronto since 1967. He received his Ph.D. at the University of Wisconsin in 1970 and has done archaeological research in the North, Meso- and South Americas, and on Hokkaido Island of Japan.

Dr. Hurley began by contrasting Canadian and Japanese archaeology which differed in that (1) the Japanese have a federal law which sponsors all kinds of salvage excavations, (2) according to this law, these excavations must be funded by the land developers and the local and federal governments, and (3) this funding enables the Japanese to run large scale salvage excavations such as at the Chitose Airport Village Site on Hokkaido. Canada, on the other hand, does not have an enforced federal protection law or ample federal funding which would provide for large scale emergency site excavation projects. Hurley then showed scenes from many Hokkaido excavations which illustrated their scale, excavation techniques and artifacts, as well as the island's cultural occupation sequence. The oldest site shown was a Jomon village of circular pit houses (ca.8000-7000 BC) which had central hearths. Their house roofs were supported on posts located on the circumference walls, and on larger internal posts. By the Middle Jomon times (ca. 3500-2000 BC) the pit houses had become elongated in shape. In Epi-Jomon times (500 BC - 500 AD) there is evidence of the migration of objects, ideas and possibly people to Hokkaido from Korea (combs were found) and Siberia (burial goods found on the Hokkaido University Campus site in Sapporo). Finally, Hokkaido, during the last two centuries, has participated in world-wide transportation and economic networks while continuing to preserve the traditional cultures of the Ainu (its native peoples) and the Japanese (who have settled there since the 19th century).

Toronto Chapter Monthly Meeting - Wednesday, March 20, 1985

Reported by Annie Gould

THE LONG AND SHORT CHRONOLOGIES OF OLD CROW

by Dr. William Irving

Dr. Irving did his undergraduate studies at the University of Alaska and his Ph.D. at the University of Wisconsin. His research has looked at North American Indians from the 19th century to very early prehistoric times. He has worked in Mesoamerica, Alaska, the Yukon and on the American Plains.

Dr. Irving began by saying that the chronology of the Yukon's Old Crow Basin is still unclear. However, the evidence (artifacts and dating analysis) suggests that man was present in the area before 70,000 years ago. Using a cross-section diagram of three locales in the Basin, as well as slides, Dr. Irving described the reconstructions of the historical geology (glacial lake(s) sediments exposed by the Old Crow and Porcupine Rivers) and Pleistocene fauna (i.e. mammoths) of the area. Following this, he examined the three Basin sites excavated so far. Locale 11A (a sandbar) produced a human mandible and

dog bones in addition to other faunal bones, several of which were mammoth bones, that had been fractured by man, and ivory (carved) over 27,000 years ago. Locale 11 (a bluff) produced more worked bones. Locale 12 (also a bluff) is still being excavated and has produced more faunal bone fragments (naturally and artificially fractured), and mammoth ivory tool fragments. However, the dating of this Locale has produced conflicting dates of 80,000 and 350,000 years for the oldest artifacts. Dr. Irving consequently is awaiting further improvements in the various dating techniques being used before offering a final date for that material which he believes could be between 175,000 and 150,000 years old, according to their stratigraphic position.

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Toronto Chapter Monthly Meeting - Wednesday, April 17, 1985

Reported by Annie Gould

THE WALLACE SITE:
1984 FIELD SCHOOL

by Dr. Gary Crawford

Dr. Crawford did his undergraduate work at the University of Toronto and received his Ph.D. from the University of North Carolina. He is currently an Assistant Professor in the Department of Anthropology at the University of Toronto's Erindale College, teaching archaeology and paleo-ethnobotany. His past and current research has been done in Japan, the southeastern United States and Ontario.

Dr. Crawford's talk consisted of his observations of running the University of Toronto's field school on the Wallace Site, and of the preliminary results from it. The Wallace Site is located on the Niagara Escarpment south of the Forks of the Credit River. It was first excavated by Bill Donaldson and Dr. Howard Savage in the early 1960's. Their excavation's artifact collection was recatalogued by the 1984 field school who are incorporating that data with their own. The focus and aims of the field school were to examine the prehistoric ecological situation of the site and its area, and to learn archaeological surveying, excavation and analysis techniques. The school consisted of junior and senior classes who, in addition to learning different kinds of techniques, excavated on different parts of the site.

The areas excavated included an overgrown laneway, a plowed field and a fence row. Preliminary analysis of the artifacts confirms that the site dates to the early 1500's AD, having ceramics that are similar to several sites (e.g. Boyd, Lawson, Southwold). Lithics made up the majority of the recovered artifacts but many of the chert tools had been made on irregular flakes which is characteristic of other Escarpment sites. The recovered faunal remains consisted of a lot of Elk (among others) bone and worked bone. Recovered floral remains included corn, beans, and sunflowers. Settlement patterns uncovered showed that the site was a village with at least four houses, a palisade and middens. Dr. Crawford concluded by saying that the site will be excavated further by the 1985 field school.

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FRANK RIDLEY

1904-1985

by June and Doris Ridley

Frank Ridley was born on February 1, 1904, in London, England, the second of two children. His father, John Arthur Ridley, was a naval architect and the family moved to wherever ships were being built. Frank still had his father's course note book "Advanced Naval Architecture", dated 1887, when he died.

In 1909, looking for better prospects, Arthur Ridley emigrated to Canada, found work in the shipyard at Collingwood, Ontario, and later sent for his family. His wife and two sons sailed from England on May 12, 1911, on the s.s. "Victorian". Frank still remembered the Collingwood he knew at the age of seven.

By 1912 the family had settled in Winnipeg where Arthur Ridley turned his hand to housebuilding. However in 1914 when World War I broke out Manitoba declared a moratorium on debts and thus created chaos in building projects. Arthur Ridley had heard from his neighbours of a very rich arable territory, between the North Peguis and Fisher River Cree Indian reserves, which was called Dallas. He therefore, aided by the enthusiasm of his two young sons, filed on a homestead in this area. By this time the family had been augmented by the birth of a daughter, Doris.

Frank always recalled their arrival at Hodgson, 100 miles from Winnipeg, and the "end of steel". They were met by Chief William Asham who welcomed them to his home for the night. He made them a short speech assuring them that they had nothing to fear from the Cree Indian people. In fact it was with their help that the family travelled on wagons pulled by oxen and ponies over the 20 miles of mud holes and freshly cut stumps up the Fisher River valley to Dallas.

The hard years that followed shaped Frank for the future in many ways. His first construction experience was in helping to build the Ridley homestead. He learned to control teams of oxen and horses, and to survive in sub-zero conditions on the long trail to the railhead. Thanks to the neighbouring Indians Frank became bush-wise. That this naive city-bred English family survived at all in the bush was due to their stamina and the assistance of the neighbouring Cree. It was the Cree who helped and showed the Riddleys the most propitious way of clearing the land by felling trees in one direction only--so that they could more easily be removed. It was they who provided frozen Lake Winnipeg Goldeye and moose quarters. They taught Frank such necessary survival skills as stuffing mocassins with straw when wet and it was under their tutelage that Frank became skilled in the use of the axe and rifle.

In 1917 in response to a wartime demand for naval architects Arthur Ridley left to work for the U.S. Emergency Fleet Corporation on Lake Michigan. Later, after closing their woodland home, the family joined their father in the U.S. living in various cities around Lake Michigan. One of these cities was Milwaukee which was to influence both Frank and his brother Robert in later life.

While still in Milwaukee Frank discovered the city's museum which, fortunately, happened to be a very good one. He spent a great deal of time there and even attended a lecture series on the archaeology of primitive man. This sparked an

interest which in later years he was able to pursue.

In 1919 he family returned to the homestead at Dallas, Manitoba, where Frank was to remain for the next six or seven years. His brother Robert left the homestead in 1923 for the U.S., returning to Milwaukee and thereafter made his home in Wisconsin. He became an engineer by profession and spent his retirement years, a widower, on farmland which he converted into a protected wildlife area. He became a well known naturalist, achieving in Wisconsin a recognition and record of accomplishment similar to that which Frank earned in Ontario. On his death in 1983 he was honoured by the Audubon Society of his region.

Frank left Dallas in 1926 and later settled in Toronto, where he designed and built many homes noted for their beauty of design.

In 1933 while Frank was on a visit to the homestead of a friend he met June Packer whom he had for a time known as a small girl. Frank was surprised to find her now grown up. He proposed and in 1934 they were married. A short time later June's parents moved to Toronto to follow their only daughter. A daughter, Janice, was born to Frank and June in 1939.

Frank built his own French Provincial style home among the apple trees of Burnhamthorpe Road and a log house on a sand dune at Bluewater Beach. By 1942 Frank had the means and the time to re-activate his interest in mankind and its relationship to the prehistory of Canada.

The location of his cottage was fortunately in the midst of Huronia territory. Frank had become very knowledgeable over the years about early Canadian history and voraciously read the literature of the first Jesuit priests. He followed the Champlain trail near the lake for miles; in winter skiing and dragging his small daughter Janice on a toboggan; in summer walking or taking an old Model A Ford over horrendous terrain. With this method and the information derived from the Jesuit Relations, specifically those of Father Brebeuf, he located many sites.

He first located the village site of Ossossané which, incidentally, was not on the lake shore as many had decided but was at the top of the escarpment where it could be easily fortified, near Concession 7, Tiny Township, on the farm of the Lesperance Brothers.

Frank then, by taking note of Father Brebeuf's measurement in leagues from the village of Ossossané, estimated the spot where he thought the ossuary should be. There he found a large depression in the sandy soil on a farm some few hundred yards from the County Road between Concession 6 and 7.

Frank and June invited Professor Kenneth E. Kidd and his wife Martha to their Bluewater Beach cottage. After an exploratory "dig" at the large depression, the location was presumed to be correct. Frank bought the property from the owner and was afterwards reimbursed by Sir Ellsworth Flavelle. He then persuaded the R.O.M. to excavate the ossuary with a crew under the direction of Dr. Kidd. The first estimate of the authenticity of the site was vindicated by the appearance of three copper vessels and certain artifacts which were clearly described in Father Brebeuf's narrative.

On this "dig" Frank first met Paul Sweetman who subsequently suffered many archaeological trips with the Ridleys--by plane, canoe and boat. He and his

wife Polly became fast friends of the Ridleys.

When no one sufficiently interested could be found to sponsor a marker for the Ossossané ossuary Frank built one himself at his own expense. He spent a whole winter hand-carving the letters deeply into the wood. Paul Sweetman and even Paul's father aided in this project. The marker still stands, as it will for many decades to come, a monument to the Huron Indians of Ossossané.

During his search for the sites of Ossossané, Frank recorded a number of large prehistoric sites with similar recurring ceramic, pipe style and lithic traits which were distinctly separable from the historic Huron sites. He found no reference to this prehistoric complex so he named it Lalonde after the first farm on which it had been found. Receiving much encouragement from Dr. J. B. Griffin of Michigan and other scholars in New York, he submitted his reports on the Lalonde and Fallis sites to *American Antiquity*.

In the hope of identifying Algonkian material, Frank turned his interest northward. In his canoe he explored northern lakes and rivers, accompanied sometimes by June and sometimes by his good friend Paul Sweetman. Eventually locating the Frank Bay site on Lake Nipissing, Frank excavated there with his crew of five, for three seasons; through seven pottery-bearing strata above a preceramic Arctic-like stone industry he named the Mattawan Culture. Other searches and excavations around Lake Abitibi, the Cochrane District and the Michipicoten River, produced a series of excellent reports and publications. At the stratified Michipicoten site, Frank recognized both Plains and Iroquoian pottery, and was able to relate two of the pottery bearing levels to a site near Barrie and the Pickering Boys site (discovered by Dr. C.H.D. Clarke).

Because of the importance of these sites as pre-Iroquois developmental stages and their relationship to the Frank Bay site, Frank sponsored the publication of reports on the two sites by the Ontario Archaeological Society.

Frank then turned his interest to the archaeological definition of the material culture of the historic Neutral. His resulting publication "Archaeology of the Historic Neutral" is an out-of-print collector's item today.

This work was interrupted by a singular mark of the stature Frank had by this time achieved internationally. In 1959, he, his friend Paul Sweetman and three other Canadians, were invited to the People's Republic of China. They travelled some 6,000 miles as guests of the Republic visiting archaeological sites. Before leaving Canada Frank shipped to China a selection of Huron artifacts. The Chinese people pointed out to him that this was the first instance of archaeological material passing from the West to China.

The Canadian party returned via the Soviet Union. In a Russian museum in Moscow, Frank found a remarkable similarity between some artifacts there and those he had found in Canada. This prompted his paper on "Transatlantic Contacts of Primitive Man".

The unique background of first-hand knowledge of Indian thinking patterns and diverse personal experience in the bush from which Frank approached problems of archaeological interpretation meant that he was certain to be innovative and often alone among his colleagues.

He drew on his boyhood skills in considering the construction of Iroquois

longhouses. He combined his youthful experiences on the homestead in his later association with, mainly, French farmers of western Huronia, to locate sites and to deduce origins and the functions of artifacts and materials.

To give one a brief idea of the hardships and handicaps due to the inclemency of the weather and adverse conditions involved in so many of Frank's expeditions, June relates the story of the first two reconnaissance trips to Abitibi:

In 1954, the Ridleys, accompanied by their daughter Janice, explored Lake Abitibi leaving from Le Sarre on the Quebec side. This lake is shallow and very choppy, with many "deadheads" to be dodged. The shores are of clay, landing places sparse and difficult and filled with floating logs. The first night they camped, it had rained for three days, causing the lake to be more turbulent than usual. The large canoe, rented at La Sarre, was extremely ancient and Frank feared that it might "break its back". Therefore it was necessary to leave at 3 a.m. when the waves had subsided. With the sun the breeze freshened and they were forced to head for the nearest shelter.

A site with large ancient stone artifacts was discovered. On the return to La Sarre they were marooned on a tiny island all day. When the waves subsided they set off again, using a compass for direction and a flashlight to avoid the "deadheads". This trip was published in more detail by the Canadian Geographic in 1962.

Frank was so fascinated by Lake Abitibi and encouraged by the success of finding this ancient culture at the Narrows of the lake that a year later they made another reconnaissance. Starting in late September from the Ghost River bridge near Matheson they paddled 15 miles down the river to Lake Abitibi. They camped for the night at the confluence of the Ghost River and Lake Abitibi. Stiff with the cold an irate wife fell into the water when landing and then in the dark had to prepare supper consisting of beans and coffee--mixed with bark and sand--while a subdued husband put up the tent. Delightful indeed was this wedding anniversary!

Spirits vastly improved, however, the following morning on finding that this camp site was rich with early-man artifacts. This was the prelude to a thorough and successful search of the lake, made over many subsequent years.

Continuing these anecdotes of the more major expeditions made under difficult conditions, Paul Sweetman relates a trip with Frank early in July of 1954 to Moose Factory. With canoe and equipment for a prolonged camptrip they traveled by the Northland Railway and left the train where it crossed the Cheepash River. By canoe they paddled, through the heat and black flies, to the confluence of the Moose and Abitibi Rivers. Here they camped and some Indians set up their tepee beside them. (This was the route followed by the Chevalier de Troyes on his expedition of 1685 and also by fur traders to avoid the rapids at the mouth of the Abitibi.) Their goal on this trip was to find the site of the original Hudsons Bay post on Hayes Island. They did in fact discover traces of the post and also did some digging outside the present Hudsons Bay post.

Another prolonged reconnaissance trip was to Lake Kesagami. Frank had read in some of the Hudsons Bay Journals that in the 18th century fur trading period Indians would assemble on the shores of Lake Kesagami. He therefore thought that there should be some artifacts there. They were flown in by Lands and

Forest plane from Porcupine, over countless miles of muskeg. The pilot, who was in unknown territory, was finally able to make a landing on the one and only sandy beach. He left them with their food and equipment for a ten-day stay. Included was a two-way radio which, unfortunately, was found only to receive and not transmit. They were subject to typical arctic weather--the sun shone one moment, the next instant dense clouds were followed by very turbulent winds and snow. In the first instance their tents, which had not yet been properly erected, landed on their heads. Pots and pans flew into the lake from where they had to be rescued by canoe. Within a few days they had reconnoitred the entire lake shore to find only virgin timber, the remains of tepee poles and one old snowshoe, and no early man artifacts. During the ten days they fished to relieve the boredom--unfortunately only Frank liked fish!

In the early 1960's Frank and June Ridley undertook the last major research project for the provincial government. The object was to locate Henley House at the junction of the Kenogami and Albany Rivers. Harvey Currell had intended to accompany Frank but had other commitments. Consequently June was recruited as an unwilling replacement.

The Lands and Forests Department loaned them an 18-foot canoe and took them to the Kabinakagami River. Although fairly shallow, the river (they were told) drops 500 feet in fifty miles, so it was a wild ride attempting to dodge the myriad of rocks. They were in danger of capsizing many times and seeing their necessary equipment tak off to the Albany River without them. Each time they stopped for lunch, or to camp for the night, they were either devoured by black flies or obliterated by snow squalls. After three days and 30 miles, upon smacking into a huge rock, they landed--finally mutiny in the crew--June refused to go any further! They were fortunate in that it was the moose hunting season and the Lands and Forests rangers were on the alert for hunters in trouble. A message was sent to headquarters and Paul Millette picked the stranded archaeologists off the river bank and took them to Mammamattawa at the confluence of the Kenogami River and the Kabinakagami. Millette returned to headquarters after repairing a stranded plane. While awaiting his return, the Ridleys measured the remains of a trading post--a French company--competition for the Hudsons Bay Company. No artifacts were found.

Millette returned in his Ruperts-house canoe with two halfdrowned and subdued German sportsmen and their equally saturated effects. Next morning Paul loaded everyone and everything, including canoes, into his big canoe and continued down to the Albany River.

Still no artifacts were discovered as, except for a narrow piece of fertile land on either side of the rivers, the place was all muskeg.

Always anxious to assist and associate with anyone who had a responsible interest in archaeology, Frank attended every archaeological symposium where Dr. J.B. Griffin, Dr. Wm. A. Ritchie of New York State, Dr. K.E. Kidd and others were lecturing. When Frank gave papers on his own work, he took with him a quantity of very pertinent material and extremely informative indeed were the in-depth discussions enjoyed after the lectures. Dr. J. Norman Emerson occasionally travelled with Frank to the U.S., and though they definitely held differences of opinion both archaeologically and anthropologically they still indulged in many discussions. Frank's friendship with Kenneth Kidd dated from the early 1940's when he attended a lecture on the excavation of Fort Ste. Marie I. His interest was stimulated by Kidd's remarks that archaeologically

Old Huronia was virgin ground. He also learned from him the correct manner of excavating a site.

The Ontario Archaeological Society was formed and Frank was active in the group. In 1950 he was recorded as a founding member. His name appears on the Society's document of incorporation as a "First Director" in 1956. He donated the funds to allow the first type-set and printed issue of Ontario Archaeology (No. 4) to appear in 1958. At his own expense Frank distributed copies of his papers and travelled to research and to give talks on his subject. He spoke to the newly formed (1963) Archaeological Society of Western Ontario in London in December 1964. Much of his available personal resources was dedicated to his archaeology. In his thirty most active years, Frank published approximately as many articles.

The Ontario Archaeological Society has several times recognized Frank's contributions to the Society and to Ontario archaeology. In 1969, Frank was elected an Honorary Member for Life in the Society, and he was awarded the first J. Norman Emerson Medal for outstanding achievement in 1979. In 1985 the title of "Frank Ridley Speaker" will be awarded to an invited Symposium speaker, and occasionally thereafter. In keeping with the stature of Frank's work, no distinction will be made concerning the academic or vocational status of the recipient.

Besides being so involved in archaeology Frank managed to find time for many conservation projects. Over a period of fifteen years, with the aid of the Humber Gun Club, he headed the battle to reclaim a marshy useless 2300-acre area for a wildlife preserve. This is now known as the Tiny Marsh Wildlife Sanctuary and is operated under the auspices of the provincial government. He was also instrumental in preserving Old Fort York in 1959, and the Montgomery's Inn, in which he became concerned in 1944-45.

Over the years Frank made numerous gifts or loans of his archaeological material. As already mentioned, there was the gift to the Chinese people in 1959. When Huronia House opened in Midland Frank loaned them some of his archaeological material. His major collection is, however, on permanent loan to Sainte-Marie among the Hurons. This fine interpretive museum has some thirty feet of showcases, housing "The Ridley Collection", said to be the finest of its kind in the world.

Frank considered his Northern archaeological material should be presented to a responsible institution in Northern Ontario. He therefore donated this collection, in 1977, to Laurentian University at Sudbury.

As control of Frank's Parkinsons disease became less certain he withdrew from the public eye. He nevertheless commenced a huge program of rediscovery and evaluation, for the Ontario government, of the hundreds of archaeological sites reported in Simcoe County. Working from his Bluewater Beach cottage he surveyed to estimate the extent of each site, excavated test trenches, sketched the artifacts discovered, and finally wrote the reports. For the outdoor work he utilized the aid of any summer guests who were interested and available. It goes without saying, however, that his wife June volunteered her assistance for the major part of this enterprise--and they often worked into early November, encountering blizzards as they surveyed. In a period from 1966 to 1975 inclusive, Frank reported 119 sites. His reports are now in the Ontario Archives.

One of the large projects which Frank, to his regret, was unable to complete was the Montreal River site. He made three or four trips, did extensive digging, made copious drawings and notes. It was a confusing site and he struggled many times to put it into context, but was never satisfied. He was concerned about this to the end of his days.

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DNA SAMPLES TAKEN FROM ANCIENT MUMMY

Human genetic material has been extracted from a 2400-year-old Egyptian mummy of a baby boy and grown in tissue culture in a laboratory, the British scientific journal "Nature" reported.

It is the first time scientists have been able to extract specimens of DNA from an ancient human or earlier primitive man and reproduce the genetic material in a controlled environment, said Peter Newmark, the weekly's deputy editor.

DNA, or deoxyribonucleic acid, is the material in the nucleus of every cell in the body. It carries a complete blueprint of the genetic makeup of that individual.

In a series of experiments to study evolution, scientists led by Dr. Svante Paabo of the University of Uppsala in Sweden investigated 23 mummies for DNA content, "Nature" said. A fragment of DNA was recovered from a year-old boy who was mummified in Egypt around 400 BC, it said.

The modern genetic engineering methods of cloning to reproduce DNA from specimens thousands of years old could have a profound impact on the study of evolution and archaeology, Mr. Newmark told The Associated Press. Comparing DNA taken from living organisms and dead organisms "might sort out relationships between species and help scientists in trying to find out man's closest living relatives, such as the chimpanzee," he said.

"Nature" said in a statement that if the techniques were extended, "it could provide answers to questions about the relationship between the dynasties of Pharaohs and about their descendants."

Artificial mummification was practised in Egypt from 2600 BC until the fourth century AD. The dead were sometimes loosely wrapped in mats or skins and buried in shallow graves.

Long-dormant fragments of DNA from animals other than humans had been reactivated previously. Fragments of DNA were taken last year from the quagga, an African mammal which resembled a cross between a zebra and a horse and which became extinct more than a century ago. Museum specimens of the quagga were obtained and genetic molecules replicated by Dr. Allan Wilson in a laboratory at the University of California at Berkeley.

Mr. Newmark said the idea of restoring an extinct animal species by cloning remained far-fetched. "I couldn't rule it out," he said. "You would not do it by extracting DNA--you would use the whole nucleus of the cell. But I think it's an extremely remote possibility."

From the Globe & Mail, April 19, 1985

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ARCHAEOLOGICAL RESEARCH REPORTS AVAILABLE

The following may be ordered from the Ontario Government Bookstore, 880 Bay Street, Toronto, Ontario M7A 1N8. Telephone orders will also be taken: in Toronto call 965-2054 for information, 965-6015 to place your order. Outside Toronto, call toll free 1-800-268-7540. From northwestern Ontario, dial 0 and ask for Zenith 67200. Cheques should be payable to the Treasurer of Ontario. Prices and stock numbers quoted are as of July 24, 1984.

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A HISTORY OF CERAMIC TABLEWARE IN ONTARIO, 1780-1840

Ian Kenyon

INTRODUCTION

Ontario's pioneers were hardly as self-sufficient as the modern-day purveyors of the false nostalgia of the past would like to make out. For, indeed, our pioneers were the children of the Industrial Revolution and had a seemingly unquenchable thirst for mass-produced consumer goods.¹

In Ontario's first 100 years, the general store supplied many of these consumer needs - for they were general stores, typically offering lines of dry goods groceries, liquor, hardware and crockery. Censuses taken in the mid-19th century reveal that at that time most counties had on average about one store for every 300 to 400 people. And at an earlier date, Robert Gourlay's Statistical Account of Upper Canada (1817) shows that for southwestern Ontario almost every township with a population of over 300 people had at least one store; that is, about one store for every 50 families.²

The interior arrangement of the stores was as standardized as the varieties of goods they stocked. There might be long counters on both sides of the store, on one side dry goods and on the other groceries, and, at the back, shelves lined with crockery, glass and hardware. Even for general stores with a good line of crockery, ceramics sales represented less than 5% of their business; dry goods and groceries were the mainstays of the storekeeper's trade.³

The ceramic tablewares were manufactured mostly in Britain, but the small town storekeeper did not order his crockery directly from overseas but relied on big city wholesalers, Montreal being the most important centre. In the early part of the 19th century, crockery shipments would be received usually only once a year, normally in the fall, although by mid-century, a period of rapidly improving transportation, orders might be placed two, three or even four times a year.⁴

Like business today, business then involved a great deal of laborious paperwork. Fortunately, this past tedium has resulted in a present day wealth of documentation that now can be consulted for details about the economics and commodities of Upper Canada. Among the more useful documents kept by storekeepers include⁵:

Day Books: which recorded the daily sales.

From these it is possible to determine who bought what, when and for how much.

Inventories: year end lists of goods still in stock. These were usually taken in winter or early spring, so that the merchant could determine what types and quantities of goods needed to be reordered.

Memoranda: lists of goods the storekeeper intended to order for his next supply (Fig. 1).

Invoices: detailed lists of goods sent by the wholesalers to the storekeeper, which were kept loose in bundles, pasted into albums, or transcribed into "invoice books" (Fig. 2).

In what follows I would like to present a brief history of the ceramic tablewares used in Ontario between 1780 and 1840, concentrating only on the most commonly used varieties of dinner and tea wares.⁶ This will not be from a ceramicist's viewpoint, detailing the minutiae of technology, nor from the archaeologist's viewpoint -- "the stuff I dug up last summer"⁷ -- but from the historian's, using the documents kept by the storekeepers of Ontario over a century ago.

1780-1790

By the 1780's, the British ceramic industry was riding the wave of the Industrial Revolution. Factories like Wedgwood, Spode and Leeds, as well as many lesser known firms, were mass producing white earthenwares for home and overseas consumption.⁸ The commonly produced earthenware of the time was then known as "Queen's ware" or "cream coloured", sometimes abbreviated as C.C., a designation that persisted throughout the 19th century for any plain white earthenware. The distinctive feature of 18th century cream coloured ware was its yellow-tinged glaze. Although the pottery was sometimes decorated with overglaze painted or printed designs, more frequently it was left plain, the only embellishment being a moulded border available in a number of standardized patterns (Figure 3).⁹

By the 1780's, a ware with a blue-tinted glaze, then usually known as "China glazed", had been introduced. This new ware is more familiar to archaeologists under the name "pearlware". Unlike creamware, pearlware usually had coloured decoration. On plates, for example, the ruffled moulded borders would be painted green or blue: this type was known as "shell edged" or more simply "edged" (Figure 4). Pearlware teaware and bowls were often painted, either with all blue patterns (Figure 4) or with multi-coloured ones executed chiefly in greens, blues and browns -- the multi-coloured painting usually being termed "enamelled".¹⁰

- 6 Crates Cream Coloured.
 Porthen Ware to contain ea }
 6 Doz. Table & 6 Doz. Soup Plates
 6 " Desert " Ditto
 6 " Muffins Ditto ea. 6 Doz. In.
 12 Doz. Chambers ea 3 Pt. and 12.
 1 Doz. ea. 2 Quart & 2 Quart Bowls
 2 " Pint } Bowls
 3 " 1/2 Pint }
 1/2 " Tea Pots ea. 1 Pint & 1 Quart
 1 " Milk Jug. —
 2 Doz. ea. Peppers, Salts & Mustards
 10 Doz. Por. Small Cups & Saucers.
 5 " Por. ditto Ditto painted.
 6 Crates Coloured ea. —
 3 Doz. Table & 3 Doz. Soup
 Plates Blue Edge }
 4 Doz. desert ditto ditto
 4 " Muffins ea. 4 ea. & 6 ea.
 The same number Plates Green Edge

Figure 1. Cartwright's memorandum of 1808 Queen's Archives.

1790-1800

In the 1790's, plain creamware or C.C. plates still dominated the market, however the more elaborate borders typical of earlier decades such as the feather edge and Queen's shapes, were less favoured than the simpler Royal and Bath patterns. For example, an 1795 invoice sent to Angus Mackintosh, a prominent Sandwich merchant connected with the North West company, shows that all of his cream coloured plates received that year were of the "Bath" shape. These included a variety of plates in "dinner" and "dessert" sizes (i.e. large and small) as well as the deep bottomed soup plates. In addition there were Bath pattern oval serving dishes of five different sizes. Those who sought more colourful dinnerware could purchase blue or green edged plates, which sold for about 50% more than cream coloured.¹¹

There was more choice in teaware. Although plain cream coloured "teas" (i.e. a cup and saucer unit) were available, painted ones were popular too. Cream coloured teaware was sometimes painted in an overglaze red, but more typical was the blue and enamelled pearlware. All three painted types sold for the same price, which was about 50% to 100% higher than undecorated creamware. Benjamin Seymour, a Fredericksburg storekeeper, with unusual care listed the varieties of teaware that he was selling in his day book of 1796-1798.¹² He offered "white" cups and saucers in both large and small sizes, as well as "blue and white" (blue painted) and "enamelled" (polychrome painted) teaware. An 1798 invoice of goods received by John Askin, a merchant of the Detroit River area, reveals a somewhat different selection.¹³ His order included 12 doz. "red and white" (i.e. red painted creamware) cups and saucers and the same number of blue painted. He also received some "blue and white china cups and saucers", meaning English or more likely Chinese manufactured porcelain, which cost six times the price of painted earthenware.

1800-1810

Similar assortments of ceramics were available in the first decade of the 19th century. This is illustrated in a memorandum made by the Kingston merchant, Richard Carwright, in 1808 (Figure 1). Plates were ordered in four different sizes, about one-half were cream coloured, the other half edged. Green and blue edged were ordered in exactly the same quantities and sizes. A similar ordering pattern can be seen in an 1802 shipment sent to Thomas Cummings of Chippewa, along the Niagara River: 34 doz. green edge plates, 22 doz. blue edge and 32 doz. cream coloured.¹⁴

Shuter & Wilkins, Montreal, 5 th Nov. 1835			
6 doz. Painted Teas 2/-	20/-	6 doz. Blue Plates 4/-	18/-
Sea Pots 2/6	24/-	2 doz. Knifflers 4/6	24/-
2 doz. Milk 6/-	10/-	Muffins 7/6	35/-
Bowls 2/3	6/-	1 doz. Peppers	4/6
Mustards 6/-	3/-	1 doz. Salts	2/6
Lettered Mugs 7/-	4/-	3 doz. Bakers 7/6	21/-
Blue Oval Tea Pots 2/6	12/-	1 doz. Chamber 7/6	7/-
Sugars 2/-	20/-	1 doz. Basons	12/-
Milk 12/-	6/-	4 doz. Bowls 2/3	9/-
Bowls 4/6	3/-	1 doz. Milk 2/6	2/-
Hand. Cups & S. 7/6	11/-	12 doz. Bakers 7/6	12/-
Mugs 5/-	10/-	1 doz. Egg cups	2/-
Dishes 12/6	39/-	2 doz. Pitchers 7/6	12/-
Entre-lugs 7/6	24/-	5 doz. Clay Balls 10/-	50/-
Rockingham Teapots 5/-	5/-	1 doz. Stands 5/-	5/-
China Stools 4/-	4/-	2 doz. Common Tumblers 3/6	12/-
			179 6

Figure 2. Invoice received by Benjamin Tett from Shuter and Wilkins, Montreal, 5 November 1835. The wholesale prices are given in Halifax currency (i.e. 1 shilling = 20 cents). The painted teas cost 2/- (40 cents) whereas the "Hand. Cups & S." (handled cups and saucers, likely blue printed as is the "blue" teaware listed immediately above this entry) cost 5/6 (\$1.10). Tett was not ordering either C.C. or printed plates, only blue edged ones which came in various sizes ("twifflers" were medium sized plates and "muffins" small sized ones). Queen's Archives.

In teaware, cream coloured was less prominent, constituting only about one-third of the cups and saucers in Cartwright's and Cummings' orders, about two-thirds were painted. Cartwright's 1808 memorandum also included a meagre 1 doz. (3%) "blue and white gilt china cups and saucers". At this time undecorated teaware was rapidly losing its popularity, so much so that in 1809 Cartwright did not even bother to order any, and instead stocked his store with painted teaware.

1810-1820

Creamware lost further ground in the 1810's. In Cartwright's order of 1814, only 20% of the plates were cream coloured, the remaining 80% were an even mixture of blue and green edged. Similarly, the Essex Co. merchant, George Jacobs, was ordering only about 25% cream coloured plates, according to his invoices of 1815, 1816 and 1817.¹⁵

The major new type of the 'teens was blue printed teaware (Figure 5). Although blue printed ceramics had been in production for three decades, it was not until about 1810 that it became a relatively common sight on Upper Canadian tables.¹⁶ In Jacobs' invoices about two-thirds of his teaware was blue printed; however, it was not until the following decade that blue printed plates came into wide use.

1820-1830

The 1820's saw few changes from the previous decade, with this one exception. Blue printed, which in the 1810's had largely been confined to the decoration of teaware, was now commonly used on dinnerware as well. Jacobs' invoices of 1815-1817 list no blue printed plates despite the plethora of printed teas. But, in contrast, a decade later in 1825, W.B. Robinson of Newmarket was ordering about 13% printed plates; and in the same year about one-third of the plates on the shelves of the McDonalds' Ganonoque store were blue printed.¹⁷

Probate inventories of two stores in Longueuil and Hawksbury owned by John McIntosh (died 1829) provide a cross-section of typical small town ceramic offerings at the close of the 1820's. Soup and dinner plates were mostly C.C. and blue edge, although blue printed plates were available but in lesser quantities. Small sized plates could be had in blue edge. Teaware came in C.C., painted and blue printed, although a few teapots of "fine blue" china were available to those who could afford them.¹⁸

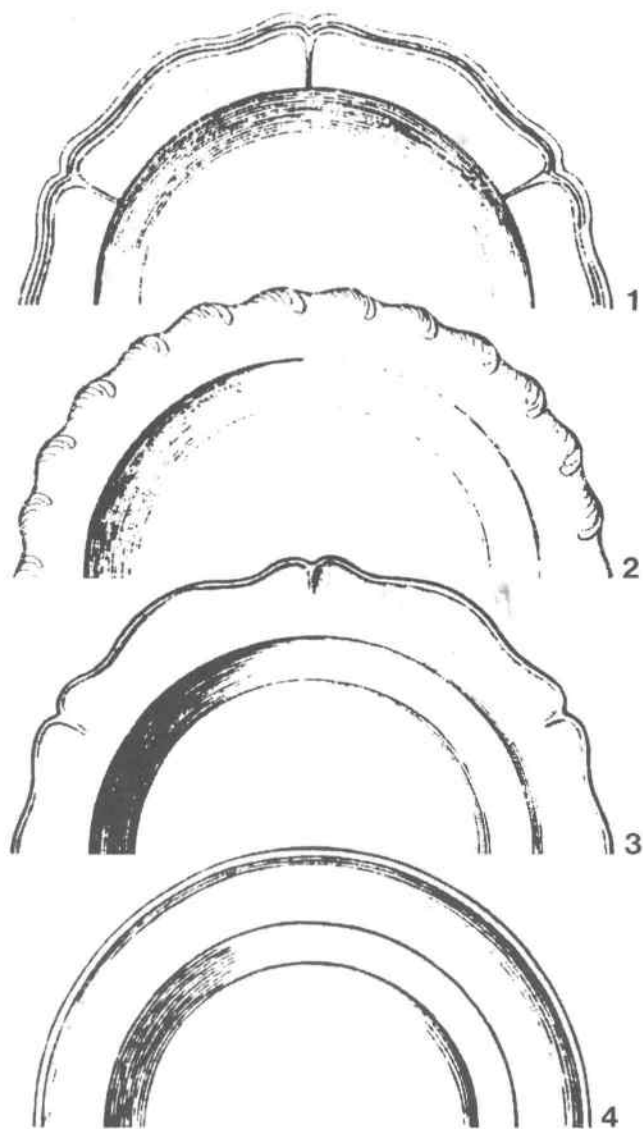


Figure 3. Late eighteenth century cream coloured plate patterns: 1, Queen's; 2, Feather; 3, Royal; 4. Bath. (Taken from The Leeds Pottery, D.C. Towner, 1963).

1830-1840

In the late 1820's, English potting underwent technological changes which saw the development of printed colours other than blue. Simeon Shaw in his History of the Staffordshire Potteries, published in 1829, wrote of this:

Very recently several of the most eminent Manufacturers have introduced a method of ornamenting Table and Desert Services, similarly to Tea Services...using red, brown and green colours, for beautiful designs of flowers and landscapes; on Pottery greatly improved in quality, and shapes formed with additional taste and elegance. This pottery has a rich and delicate appearance, and owing to the Blue printed having become so common, the other is now obtaining a decided preference in most genteel circles.¹⁹

Apparently Shaw's "genteel circles" did not include the Colonies, for it was several years until a taste for the new green, brown and red printed ceramics (Figure 6) was cultivated in the backwoods of Canada. For example, an advertisement placed in the Canadian Emigrant in November of 1831 contains no mention of these new styles, even though this store was in Sandwich, one of the commercial centres of Upper Canada. Indeed, the crockery being sold at P.F. Verhoeff's evidently well-stocked store is much the same assortment that might have been offered a decade earlier. His ad announced:

Crockery Ware
 400 doz common cups and saucers
 200 doz Blue and Enamelled Bowls
 Gravys, Fruit-baskets
 Blue Printed dishes
 300 doz Irish Teas, Teapots
 Ewers & Basins, Soup Tureens
 Blue and Green-edged dishes

Yet a year later, in the fall of 1832, Thomas Douglass of Brantford, a village then only two years old, purchased from the Montreal wholesaler H.B. Smith some 50 doz. teas in blue, black and pink printed, as well as 23 doz. printed plates in "all sorts patterns" and blue and brown printed jugs and bowls.²⁰ But not all merchants followed the lead of Douglass. Benjamin Tett's detailed invoice book of 1833 to 1835 reveals no trace of the new printed colours, although Tett had received annual shipments from his Montreal suppliers.²¹ Perhaps merchants like Tett knew well their customers' conservative tastes, for he continued his store for many years, whereas the fashionable Douglass was out of business in half a year.



Figure 4. Top, blue painted saucer; bottom, green edge plate rim. Early 19th century.

The most popular of all printed designs was the famous willow pattern (Figure 7). Willow is one of the few printed patterns to have its name listed in general store records; apparently storekeepers ordered most printed wares generically without regard to specific patterns. Although willow had been developed by English potters in the 18th century, it was not commonly exported to Upper Canada until the early 1830's.²²

Other changes were taking place in the 1830's. Green edged plates, which in previous decades had been ordered in evenly mixed assortments with blue edged, dropped rapidly out of favour. Verhoeff's advertisement of 1831 and Douglass' invoice of 1832 both mention green and blue edged plates. Yet a selection of invoices and store inventories dating between 1833 and 1837 contain no listing of green edged, with but one exception. This is an 1836 invoice from an Essex Co. merchant to another merchant, Robert Coatsworth of neighbouring Kent Co.: the six green edged plates may well have been old stock.²³ Benjamin Tett's records also illustrate the decline of green edged. His invoice book shows that he was receiving only blue edged plates in 1833 and 1834. Tett's day book, recording sales made in 1834 and 1835 shows, of course, that blue edged plates were hot-selling items, yet some green edged sales were made, but in low quantities. These green edged plates were presumably the remainders of old stock ordered sometime before 1833.

The familiar cream coloured or C.C. plates were in further decline in the 1830's, although once again some merchants were more conservative in their ordering patterns than others. The fashionable Douglass received no C.C. plates in his 1832 shipment -- only printed, edged and fancy painted plates. In contrast, William Mattice of eastern Ontario, perhaps somewhat behind the times, had his shelves stocked with about one-third C.C. plates, according to his spring inventories of 1835 and 1837.²⁴

Also occurring during the 1830's were changes in the colours used on painted teaware and bowls. Although this can not be well documented from general store records, it is very apparent in archaeological assemblages. This new style of painted ware displayed a greater variety of colours than used formerly -- now including red and black (see Figure 8 for an 1836 example). Blue painted teaware was largely supplanted by this vividly coloured earthenware. Arnold Fleming wrote of this new colour palette:

The term "Persian" is much used in connection with these painted patterns, but they are not at all after any design seen on Persian ware, beyond the fact that the principal colours used are red, blue and green.²⁵



Figure 5. Blue printed cup with rustic scene typical of the 1820's. (Courtesy of Dave Gilchrist).

With the decline of blue painted, merchants no longer made the distinction between blue and enamelled painted - that is between all blue and polychrome. The last document to preserve this differentiation was P.F. Verhoeff's advertisement of 1831 in which he lists "Blue and Enamelled Bowls".

ACKNOWLEDGEMENTS

This is a revised portion of a paper presented at the 1984 annual meeting of the Ontario Archaeological Society in Toronto.

Many thanks to the following institutions from which archival material was used: Ontario Archives, Toronto; Queen's Archives, Kingston; Doon Pioneer Village; Burton Historical Collection, Detroit (from which I emerged unscathed); and lastly the magnificent Regional Collections, University of Western Ontario.

END NOTES

1. On this point see V.C. Fowke, "The Myth of the Self-Sufficient Canadian Pioneer", Transactions of the Royal Society of Canada, Series III, Vol. 56, pp. 23-37 (1962).

2. Gerald Carson's The Old Country Store (1954) provides a general introduction to the operation of American general stores; a fine historical treatment of Midwestern stores and storekeepers is Lewis Atherton's The Pioneer Merchant in Mid-America, University of Missouri Studies, Vol. 14 (1939). A brief study of Quebec stores is M. Quinn, "The General Store, 1910-30", Parks Canada, Research Bulletin, No. 186 (1983).

3. C.C. James compiled prices and aggregate sales from Seymour's day book in "An Early Department Store: Prices in 1797", Appendix to the Report of the Ontario Bureau of Industries 1897 (1899), pp.92-96. James' figures show that for Seymour's store, despite its good selection of crockery, only 1.4% of the sales were ceramic items. Over a half-century later, an 1858 inventory of a Goderich store reveals only 3.4% of its items were crockery and glassware. University of Western Ontario, Regional Collections, Watson and Robertson Inventory Book.

4. The standard work on the history of the Canadian ceramics business is Elizabeth Collard, Nineteenth-Century Pottery and Porcelain in Canada (1967).

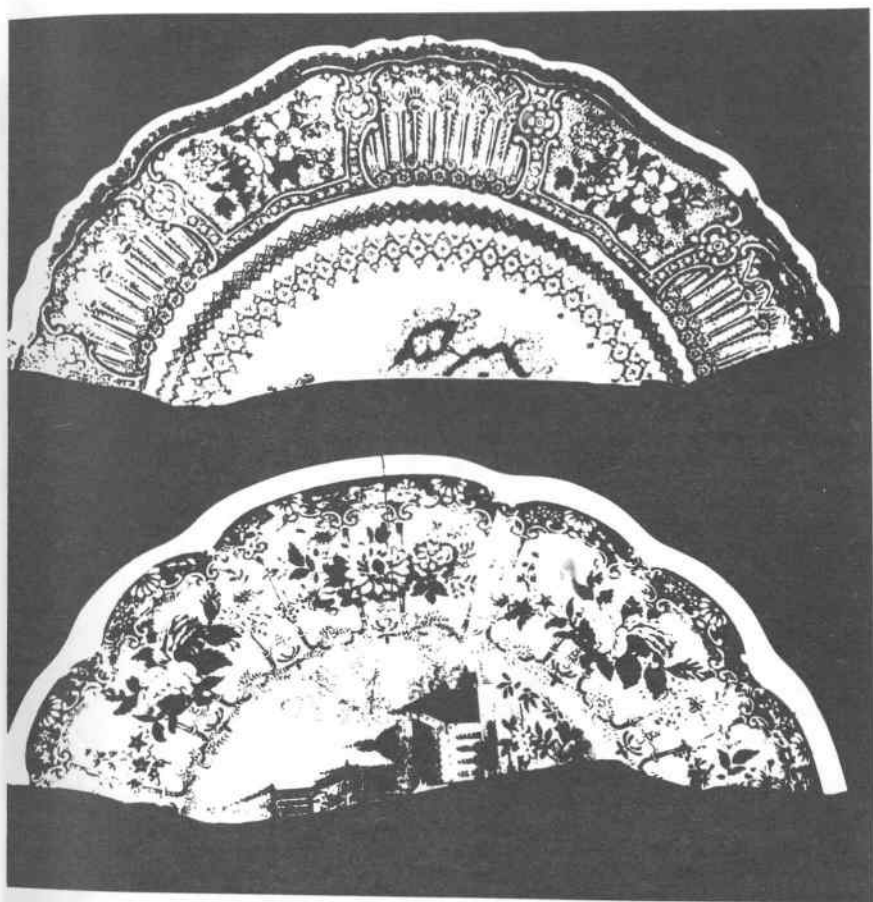


Figure 6. Printed plates with characteristic designs of the 1830's. Top is brown printed plate with the "Cologne" pattern; bottom is black printed specimen with the "Venetian Scenery" pattern.

5. The various classes of mercantile documents are outlined in Lewis Atherton, "The Cataloging and Use of Western Mercantile Records", The Library Quarterly, Vol. 8, pp. 189-199 (1938). Perhaps even more useful are the innumerable book-keeping texts published in the nineteenth century, as for example: L.S. Fulton and G.W. Eastman, A Practical System of Book-Keeping by Single and Double Entry (1863); S.G. Beatty and S. Clare, Book-Keeping; by Single and Double Entry (1877); H.S. MacLean, The High School Book-Keeping (1890). Although the first two books were published in the United States, their end paper inscriptions show them to have been used in Canada.

6. Lynne Sussman has written two excellent archaeologically oriented surveys of late 18th and early 19th century ceramic tablewares: "Changes in Pearlware Dinnerware, 1780-1830", Historical Archaeology, Vol. 11, pp. 105-111 (1977); "British Military Tableware, 1760-1830", Historical Archaeology, Vol. 12, pp. 93-104 (1978). A more modest effort is I. Kenyon, "Plates and Dishes in Early 19th Century Ontario", Kewa, Newsletter of the London Chapter, Ontario Archaeological Society, January, 1983, pp. 13-16. Important is G. Miller's compilation of prices: "Classification and Economic Scaling of 19th Century Ceramics", Historical Archaeology, Vol. 14, pp. 1-40 (1980).

7. For which, on a sleepless night, see I. Kenyon, N. Ferris, C. Dodd and P. Lennox, "Terry Lynch: An Irish Catholic in a Protestant Township", Kewa, Newsletter of the London Chapter, Ontario Archaeological Society, December, 1984, pp. 2-23.

8. Many of the technological and economic changes in the English ceramic industry are well treated in the histories of the major companies: W. Mankowitz, Wedgwood (1953); L. Whiter, Spode: A History of the Family, Factory and Ware from 1733 to 1833 (1970); D.C. Towner, The Leeds Pottery (1963).

9. Good introductions to creamware are: I. Noel Hume, "The What, Who, and When of English Creamware Plate Design", Antiques, Vol. 101, pp. 350-355 (1972); D.C. Towner, English Cream-Coloured Earthenware (1957).

10. Pearlware is treated by I. Noel Hume in "Creamware to Pearlware: A Williamsburg Perspective", Ceramics in America, edited by I.M.G. Quimby, Winterthur Conference Report 1972, pp. 217-254 (1973).

11. Ontario Archives, Mackintosh Papers, Phyn, Ellice and Inglis invoice, 1795.

12. Queen's Archives, Benjamin Seymour day book, 1796-1798.

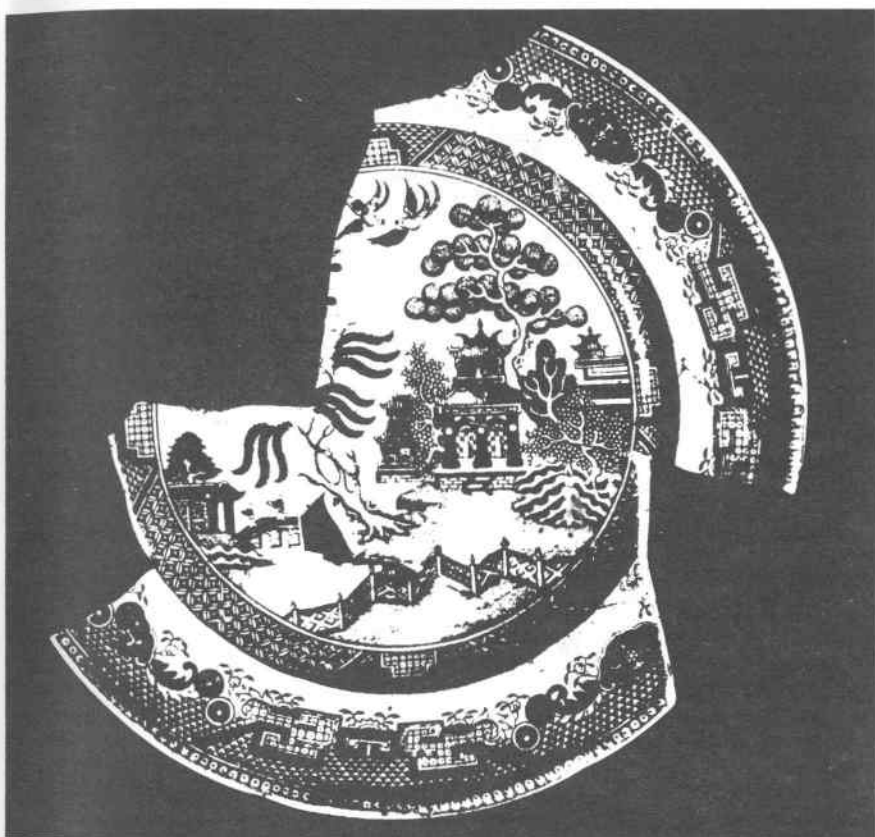


Figure 7. The Willow pattern. This plate is a Podmore, Walker & Co. product dating to 1834-1859.

13. Burton Historical Collection, J. Askin "Inventory Book". Invoice sent by J. McGill, Montreal, 14 August 1798.

14. Queen's Archives, Cartwright Papers, invoice and memorandum book. Cummings' invoice of 31 December 1802 is printed in E.A. Cruikshank, "A Country Merchant in Upper Canada, 1800-1812", Papers and Records of the Ontario Historical Society, Vol. 25, pp. 50-51 (1929).

15. Burton Historical Collection, C. Askin Papers, George Jacobs' invoice book.

16. Among the many excellent books on early printed wares are: A.W. Coysh, Blue-Printed Earthenware 1800-1850 (1972) and his Blue and White Transfer Ware 1780-1840 (1974); A.W. Coysh and R.K. Henrywood, The Dictionary of Blue and White Printed Pottery 1780-1880 (1982); W.L. Little, Staffordshire Blue (1964).

17. Ontario Archives, John Beverly Robinson Papers, invoice of 15 August 1825 sent by Shuter & Wilkins, Montreal, to W.B. Robinson (a Newmarket storekeeper and a brother of John B. Robinson). Ontario Archives, McDonald Papers, "Account Book" which includes an "Inventory of Stock in Trade by C & J McDonald, Gananoque, Dec. 5, 1825."

18. Ontario Archives, Court of Probate, John McIntosh. Although the probate inventory was submitted in 1830, the goods themselves must have been received no later than either the fall supply of 1828 or 1829, since McIntosh died on 26 September 1829.

19. Simeon A. Shaw, A History of the Staffordshire Potteries, pp. 234-35 (1829).

20. Doon Pioneer Village, T.W. Douglass Invoice Book, invoice of 10 September 1832.

21. Queen's Archives, Tett Papers, Vol. 67, Invoice Book, invoices from James Kerr & Son, Montreal, 21 September 1833 and 14 July 1834; and from Shuter & Wilkins, Montreal, 5 November, 1835.

22. The best survey of willow and willow-related patterns is R. Copeland's Spode's Willow Pattern (1980).

23. University of Western Ontario, Regional Collections, Coatsworth Papers, invoice of goods sent by William Ambridge, Mersea Township, 2 December 1836.

24. Ontario Archives, Colquhoun Papers, W. Mattice's Osnabruck store inventories, 18 May 1835 and 19 April 1837.

25. J. A. Fleming, Scottish Pottery, pp. 64-65 (1923).



Figure 8. Painted saucer with "new palette" colours typical of the 1830's and later. Executed in blue, green, black and red. A Davenport product with an 1836 date mark.

GENEALOGY IN ONTARIO: SEARCHING THE RECORDS

For the first time, a genealogical guide through the records of Ontario, is available. The author is Branda Dougall Merriman CGRS.

Formerly known as Upper Canada and Canada West, the province of Ontario created many records of genealogical value from as early as the 1780's. Not only government records are covered in this book such as land records, probate records, census returns, and civil legislation, but the book also gives clues for locating church records and outlines sources and suggestions for genealogists not resident in Ontario.

The concept of the book is to make the reader aware of what the records contain and what their limitations are for the family historian. Emphasis is on Ontario's two primary repositories, the Public Archives of Canada in Ottawa and the Archives of Ontario in Toronto. Pertinent addresses are included, with a limited bibliography. Many recommended reference articles are found in the Ontario Genealogical Society's quarterly Families, or in other publications sold by OGS. This book will be indispensable for anyone tracing their roots in Ontario.

The book may be ordered from the Ontario Genealogical Society, Box 66, Station Q, Toronto, Ontario, Canada M4T 2L7, at a price of \$2.25.

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FROM THE GLOBE AND MAIL'S LETTERS TO THE EDITOR, MAY 6, 1985

I was pleased to see that recipients of the Toronto Historical Board Award of Merit were highlighted in Zena Cherry's column of March 27.

These awards are presented by the board to recognize significant contributions of individuals, organizations and companies to heritage preservation in Toronto. Miss Cherry reported on seven Awards of Merit. I presume it was an oversight that details of an eighth award were not covered.

A posthumous award for archaeologist Dr. J. Norman Emerson was presented to his widow Ann Emerson, for his long archaeological career and role in the formation of the Ontario Archaeological Society and the Canadian Archaeological Association.

The presentation of an award to an archaeologist is particularly significant: the Toronto Historical Board recently established a task force to advise on the formulation of an archaeology policy for the City of Toronto, to enable us to deal more effectively with the significant prehistoric and historic resources that can provide us with valuable insights into our past.

Mima Kapches
Chairman, Archaeology Task Force
Toronto Historical Board

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The views expressed in items in this publication do not necessarily represent the views of the editor or of The Ontario Archaeological Society

THE BATTLE FOR STONEHENGE

Britain's most famous archaeological site has fallen on bad times. Stonehenge attracts almost a million visitors annually; indeed, it has been a tourist attraction for over 200 years. In 1740, William Stukeley, the British antiquary and first great student of Stonehenge, complained of its being overrun with visitors. In Victorian times, souvenir hunters did irreparable damage to the site and many valuable archaeological artifacts were lost or destroyed.

A first visit to Stonehenge is actually rather a disappointment to the modern visitor. So many artful photographs have been taken of the famous standing stone circle and three trilithons that the impression has been created of an immense structure, on pyramidal scale at least. Actually, the stone circle is only about 30 metres across. All those trampling feet have been too much for the fragile chalk downland and too many unthinking people have despoiled the stones, so that since 1978, the public has been excluded from the centre.

The site is now a public disgrace and an example of how an historic monument can be thoroughly mismanaged. No effort has been made to move the highway which cuts across the site, with the result that a large messy sprawl of parking lots, cafes, lavatories, and souvenir shops has developed to further degrade it.

Stonehenge actually is only one of hundreds of ancient monuments in a three km radius. Only 700 hectares of this area, bought with money raised by public appeal in the 1920's, is in the National Trust. This land was administered by the Department of the Environment, a government agency which has been unable to cope in an imaginative way with the conflicting requirements of heritage preservation and public access. In April of this year, Stonehenge and its environs passed to the Historic Buildings and Monuments Commission which will have its hands full cleaning up the mess.

The understanding of Stonehenge is also in a mess. Of course, no one now takes seriously Stukeley's thesis that it was a Druidical temple, site of nameless midnight horrors. The last 20 years have seen a great controversy arise between trained archaeologists (who are largely ignorant of astronomy) and astronomers (equally unversed in archaeology). The controversy stems from the contention by astronomers, such as Gerald Hawking and Sir Fred Hoyle, that the detailed structure of Stonehenge indicates a complex astronomical observatory and computing device. They have been able to assemble masses of circumstantial evidence of significant alignments in the stones. They have postulated an advanced astronomical technology which used its knowledge (of eclipses, for example) for purposes of ritual and political power. The archaeologists have, by and large, remained unconvinced, and recently a discovery has been made that might justify their skepticism.

Stonehenge would function effectively as an observatory only if the surrounding countryside had been a treeless plain throughout its useful life. This is necessary in order to make observations of lunar and solar risings and settings. In most places this could easily be determined by examining the plant pollen in the archaeological layers, but pollen does not last in chalk soil.

Recently John Evans, an environmental archaeologist at Cardiff, examined the remaining snail shells. He showed that there was a period around 3100 BC when the site was abandoned and reverted to forest. It was later cleared again but the shells of woodland snails never completely disappeared, indicating that the forest was never far from the site.

And so the battle for Stonehenge goes on at two levels: the intellectual

struggle to understand its purpose and meaning, and the practical struggle to reconcile the competing needs of preservation and public accessibility.

Nigel Bunce and Jim Hunt
College of Physical Science
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HAIR GIVES CLUES TO DIET OF ANCIENT ARCTIC PEOPLE

The inhabitants of the Arctic 500 years ago were exposed to much less mercury in their diet than fish-eating people today, but took in much more lead than modern Inuit, a study of hair from ancient skeletons shows.

The study, done at the University of Rochester Medical School, used a precise type of hair trace analysis. The samples taken from bodies at Barrow, at the northern tip of Alaska, and from Greenland, were compared with samples of hair from modern inhabitants of the Ungava Peninsula of northern Quebec.

Mercury in the Barrow samples averaged only 1.2 parts per million of mercury, compared with between 11 and 12 ppm for modern Quebec Inuit, according to the study. It was published by Rochester researchers Taft Toribara and Ann Muhs, in the journal *Arctic Anthropology*. Lead levels in the hair of the ancients averaged 19.3 ppm, compared with 6.6 ppm in the modern samples. Zinc levels in the ancient hairs average 91 ppm, compared with 179 ppm for modern Quebec Inuit and 190 ppm for urban Canadians. Trace levels of copper were the same in the ancient and modern samples.

The scientists are now trying to find clues to the ancient environment that will explain their findings. The Barrow natives might have used lead utensils in cooking, Miss Muhs suggested. Although the mercury levels in the bodies of the ancients were low, the scientists say it does not necessarily mean fish of the era had less mercury in their flesh than fish today. Fish may have been a less important part of the diet.

The damage to the brain and possible fatal complications of high levels of mercury in the environment prompted development of the Rochester X-ray hair analyzer, said Thomas Clarkson of the university's department of radiation biology and biophysics. The Rochester researchers have also been studying hairs from Canadian Indians on the White Dog and Grassy Narrows reserves whose main diet in the 1970s was fish with high levels of methyl mercury.

Rochester's unique X-ray machine can scan the length of a single hair millimetre by millimetre and reveal levels of trace elements in the body.

From the *Globe & Mail*, May 6, 1985

SCIENTISTS HOPE TO RECREATE GENES OF IRON AGE MAN

British scientists are hoping to recreate living genes from the garrotted body of an Iron Age man found in a peat bog.

The ancient Briton, dubbed Pete Marsh by scientists, was probably the victim of a ritual killing, "a very elaborate death rite", more than 2500 years ago, said Ian Stead, a British Museum archaeologist.

From the *Toronto Star*, May 11, 1985

ark fever mounts ...

ARK FEVER MOUNTS AS SEASON NEARS FOR ARARAT CLIMBS

As the season approaches for climbing Mount Ararat, Noah's Ark fever is running high, despite one explorer's claim that he has found the legendary boat.

This year, 73 foreigners, 68 of them Americans, have sought permission from the Turkish government to search for the ark that, according to the Bible, came to rest on Mount Ararat after the great flood inundated the earth.

Ron Wyatt, an anesthetist from Madison, Tennessee, said he is sure that the boat lies on the southwest side of the mountain at a height of 1840 metres. On a trip last summer, Dr. Wyatt took samples from the mountains.

"I brought a high-power metal detector which showed metal all around the boat shape and there were ribs of timber every nine feet all over the boat," he said. Dr. Wyatt, who came to Ankara to prepare for an expedition that he plans to start next month, said, "It is only a matter of digging it up. This is not a guess; it is a fact that this boat formation and everything about it is exactly as it should be for Noah's Ark."

Although Turkish scholars doubt his claims--one geologist says the boat shape is caused by erosion--Dr. Wyatt said the dimensions of the boat shape correspond to the measures given in the book of Genesis. He said that an analysis of his samples at the University of Georgia and at Galbraith Laboratories in Knoxville, Tennessee, showed that they are decayed wood. A nuclear physicist friend, he said, estimated the samples to be between 5500 and 5900 years old.

Dr. Wyatt plans to return to the site with eight experts, including David Fasold, a marine archaeologist from Florida, to X-ray the formation before starting to excavate. The excavation on the volcano that last erupted in 1840 will take about five years, he said.

Many Turkish scholars believe the explorers are searching at the wrong place. Archaeologist Ekrem Akurgal said it is hard to explain how flood waters could rise as high as Dr. Wyatt says.

From the Globe & Mail, April 19, 1985

1985 Spring & Summer Employment Opportunities



The heritage resource management firm of **Mayer, Pihl, Poulton and Associates Incorporated** is seeking qualified individuals to fill positions on archaeological consulting and salvage projects in southern Ontario.

Individuals experienced in archaeological field-work, artifact analysis or report preparation are invited to submit resumes to:

Robert H. Pihl
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Mayer, Pihl, Poulton and Associates Incorporated
R.R.1, Granton, Ontario N0M1V0 (519) 225-2300

All replies will be acknowledged and held in strict confidence.

NATIONAL RESEARCH COUNCIL PUBLICATIONS LIST IS NOW AVAILABLE ONLINE

After 10 years of making everyone else's publications available to the Canadian scientific and technical community, the National Research Council has released a database of its own publications.

NRCPUBS, the National Research Council Publications database, contains over 11,000 entries, including articles, conference papers, manuals, and books written by NRC scientists and other staff, as well as reports issued or commissioned by the NRC, since 1970. A wide range of scientific and technical subjects, including physics, chemistry, biological sciences, and engineering, are covered.

NRCPUBS is accessible online via the CAN/OLE information retrieval system, operated by the Canada Institute for Scientific and Technical Information (CISTI). The database was created by CISTI's Information Exchange Centre, which has authored the print equivalent of the database for many years.

Cost of searching NRCPUBS is \$40.00 per connect hour, plus \$0.035 per reference printed offline. For more information, contact:

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ARLIS/NA SEEKS INFORMATION

The New Reference Tools Special Project Committee of the Art Libraries Society of North America (ARLIS/NA) seeks information on art reference tools currently in progress. The committee attempts to maintain a complete file of new art reference works in progress in order to keep art librarians and visual resources curators, the primary users of such works, aware of what is new and forthcoming in the field. We would like to hear from art historians, art librarians, visual resources curators, authors, compilers, anyone currently working on a reference tool in any field of the visual arts, architecture, archaeology, and the crafts.

For further information, please contact:
Janet Clarke-Hazlett, Art Librarian, Vassar College,
Poughkeepsie, New York 12601, U.S.A.

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